



UNIVERSITY OF THE WESTERN CAPE

DEPARTMENT OF ECONOMICS

Evaluating the impact of social assistance on poverty alleviation in South Africa

By

Sesethu Mabongo

(3529388)

A full dissertation submitted in partial fulfilment of the requirement for the degree of Masters
of Commerce in the Department of Economics,
University of the Western Cape

Supervisor: Prof Derek Yu

October 2021

<http://etd.uwc.ac.za/>

DECLARATION

I declare that “*Evaluating the impact of social assistance on poverty alleviation in South Africa*” is my own work, that it has not been submitted for any degree or examination in any university, and that all the sources that I have used or quoted have been indicated and acknowledged by complete references.

Sesethu Mabongo



Signature:

Date: 18 October 2021



ABSTRACT

In the past two decades of liberal transformation the post-apartheid Republic of South Africa has been well described as an upper middle-income economy. Despite the country's strong political and economic affiliations with other developed countries, the nation remains till present faced with socioeconomic impediments deeply rooted within the presence of ceaseless impoverishment, unemployment and inequality. Likewise, there are various factors that explain the nature of deprivation. The application of both the money-metric and non-money-metric approaches in the conceptualization and measurement of poverty provides an in-depth understanding of efforts (or lack thereof) to establish an equal standard of living for all.

Hence, this study examines the impact of welfare transfers on poverty alleviation in the country. After providing a brief historical background of the social assistance system and a comprehensive literature review, the significance of social grants on deprivation is examined using absolute poverty lines and the Totally Fuzzy Sets approach by analysing the 2008/09 and 2014/15 Living Conditions Survey data. This study also examines the multidimensionality of deprivation by demographic and geographic characteristics.

The descriptive empirical findings indicate that the characteristics of social grant recipients were highly inclusive of being female, from the African ethnic group, middle-aged, unemployed or inactive in the labour market with possibly lower educational attainment (i.e., primary or secondary, at times none). Despite reductions in both money-metric and non-money-metric poverty likelihoods, the results show that social grant recipients still experienced relatively higher chances of impoverishment, compared with non-recipients.

On the other hand, although probit regressions reveal parallel results on the profile of social grant recipients. That is, after controlling for differences in other characteristics results show that the Old Age grant and Disability Grant played a prominent role in significantly reducing money-metric poverty likelihood, while results are contrary with significant but positive marginal effects under non-money-metric poverty likelihood. During both LCS waves the Child Support Grant results are statistically insignificant as a result of multicollinearity.

KEYWORDS: Social Security, Social grants, Poverty, South Africa.

JEL: H31, H53, I32, I38.

ACKNOWLEDGEMENTS

I would like to thank the following people and units:

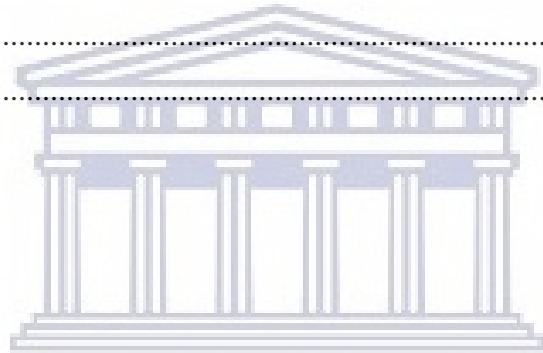
- God the source of my mental, emotional & physical sanity.
- My mother, Nolitha Mabongo, from her I have learnt resilience and how to be kind to self in pursuit of one's goals.
- Prof. Derek Yu, for the continuous patience, guidance and ceaseless sense of humour.
- Lastly, the entire Economics department at UWC that has provided me with continuous support from my undergrad years till present.



TABLE OF CONTENT

DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
LIST OF ABBREVIATIONS	vii
LIST OF TABLES	viii
LIST OF FIGURES.....	x
CHAPTER ONE: INTRODUCTION	1
1.1 Background and problem statement	1
1.2 Objectives of the study	3
1.3 Outline of the study	4
CHAPTER TWO: LITERATURE REVIEW	5
2.1 Introduction	5
2.2 Conceptual Framework	5
2.2.1 Defining Poverty.....	5
2.2.2 Poverty types and Measurements.....	6
2.2.3 Defining Social Assistance	11
2.3 Theoretical Framework	13
2.3.1 Poverty Theories	13
2.3.2 The Labour-Leisure choice model on social assistance.....	15
2.4 SA Legislative Frameworks of Social Assistance	17
2.5 Review of Past Empirical Studies	18
2.5.1 Studies that reviewed the relationship between poverty and social grants	19
2.5.2 Other studies in connection with social grants	21
2.6 Conclusion	23
CHAPTER THREE: DATA & METHODOLOGY	25
3.1 Introduction	25
3.2 Data	25
3.3 Method	26
3.3.1 Absolute poverty approach	26
3.3.2 Relative poverty approach	26
3.3.3 Descriptive analysis	29
3.3.4 Poverty decomposition by income source	29
3.3.5 Econometric analysis	30

3.4 Conclusion	31
CHAPTER FOUR: EMPIRICAL RESULTS	32
4.1 Introduction	32
4.2 Descriptive Statistics	32
4.2.1 Descriptive statistics on poverty dimensions using fuzzy sets weightings	32
4.2.2 Descriptive statistics on social grant recipients profile.....	34
4.2.3 Money-metric poverty decomposition by income source.....	53
4.3 Econometric Findings	55
4.4 Conclusion	59
CHAPTER FIVE: CONCLUSION	61
5.1 Introduction	61
5.2 Review of findings	61
5.3 Conclusion and Policy Recommendations	63
REFERENCES	66
APPENDIX	66



UNIVERSITY *of the*
WESTERN CAPE

LIST OF ABBREVIATIONS

CBN	Cost-of Basic Needs method
CDG	Care Dependency Grant
CPI	Consumer Price Index
CSG	Child support Grant
DASP	Distributive Analysis Stata Package
DG	Disability Grant
EC	Eastern Cape
FCG	Foster Child Grant
FEI	Food-energy Intake method
FGT	Foster-Greer-Thorbecker
FS	Free State
GEAR	Growth Employment and Redistribution
GHS	General Household Survey
KZN	KwaZulu-Natal
LCS	Living Conditions Survey
LFPR	Labour Force Participation Rate
LICO	Low-Income Cut-Off method
NC	Northern Cape
NDP	New Development Plan
NGP	New Growth Path
NIDS	National Income Dynamics Study
NIDS-CRAM	National Income Dynamics Study Coronavirus Rapid Mobile Survey
NW	North West
OAG	Old Age Grant
OPM	Official Poverty Measure
PSLSD	Project for Statistics on Living Standards and Development
RDP	Reconstruction and Development Program
RSA	Republic of South Africa
SASSA	South African Social Security Agency
Stats SA	Statistics South Africa
WC	Western Cape
WVG	War Veterans Grants

LIST OF TABLES

Table 2.1: FGT indices.....	10
Table 2.2: Elements of the South African social security framework.....	18
Table 3.1: Table 3.1: Poverty dimensions for deriving the Fuzzy Set Index.....	28
Table 3.2: Poverty status likelihoods.....	31
Table 4.1: Maximum monthly social grant amount.....	36
Table 4.2: Number of social grant recipients, selected years.....	37
Table 4.3: Number of social grant recipients, LCS 2008/2009 and 2014/2015.....	37
Table 4.4: Profile of social grant receipt at person level.....	39
Table 4.5: Profile of social grant receipt at household level.....	42
Table 4.6: Money-metric poverty headcount ratios, with and without social grants.....	45
Table 4.7: Money-metric poverty headcount ratios, by social grant receipt status.....	48
Table 4.8: Non-money-metric poverty headcount ratios, by social receipt status.....	50
Table 4.9: Money-metric and non-money-metric poverty status, by social grant receipt status.....	52
Table 4.10: Money-metric poverty headcount ratio decomposition by income source.....	53
Table 4.11: Money-metric poverty gap headcount ratio decomposition by income source.....	54
Table 4.12: Money-metric squared poverty gap headcount ratio decomposition by income source.....	54
Table 4.13: Probit regressions on money-metric poverty likelihood (marginal effects).....	56
Table 4.14: Probit regressions on non-money-metric poverty likelihood (marginal effects).....	58
Table A.1: Social grant eligibility criteria for the fiscal year 2012/2013.....	73
Table A.2: Vertical weights.....	75
Table A.3: Horizontal weights.....	76
Table A.4: Nominal monthly amounts of each type of social grant, 2000-2021.....	77
Table A.5: Real monthly amounts of each type of social grant, 2000-2021.....	77
Table A.6: Money-metric poverty gap ratios, with and without social grants.....	78
Table A.7: Money-metric squared poverty gap ratios, with and without social grants.....	79
Table A.8: Probit regressions on money-metric poverty likelihood (coefficients).....	80
Table A.9: Probit regressions on non-money-metric poverty likelihood (coefficients).....	81
Table A.10: Supplementary Probit regressions on money-metric poverty likelihood (marginal effects).....	82

Table A.11: Supplementary Probit regressions on non-money-metric poverty likelihood
(marginal effects)83



LIST OF FIGURES

Figure 2.1: Calories-income function.....	9
Figure 2.2: The Effect of a Change in Non-Labour income on Individual Labour Supply....	16
Figure 4.1: Percentage of households with decent welfare in each dimension.....	33
Figure 4.2: Income share of total household income LCS (a) 2008/2009 and (b) 2014/2015	35



CHAPTER ONE: INTRODUCTION

1.1 Background and problem statement

Post 1994 marked a fresh start for many South Africans as the first democratic government proclaimed triumph over the apartheid regime. Likewise, the state started the liberal era with a daunting task to deal with the serious socioeconomic inequalities faced by the nation. In particular, the new constitution was established with the intention of improving the lives of previously disadvantaged groups, namely Blacks¹, females and the disabled. The constitutional framework meant alleviating social and economic exclusion in terms of poverty, inequality and unemployment as primary factors in economic growth and development.

Overtime, various “pro-poor” programs were introduced to readdress the imbalances of the previous apartheid regime and these include amongst others, the Reconstruction and Development Program (RDP), Growth Employment and Redistribution (GEAR), Accelerated and Shared Growth Initiative of South Africa (ASGISA), and most recently, the New Growth Path (NGP) and National Development Plan (NDP). Thus, in efforts of broadening the country’s social cohesion, among others the NDP’s 2030 sustainable development goals include the eradication of monetary deprivation by reducing the 39% proportion of households whose per capita income is below R419 (in 2009 prices) to approximately zero percent. Despite the typical initiatives of improved efficient provision of basic social services such as water and electricity, some of the enabling milestones proposed towards poverty alleviation include an employment increase of 11 million between 2010 and 2030 (i.e., to increase employment level from 13 to 24 million). Likewise, the desired result is stipulated as retaining a 10% increase (i.e. from 6%) of the national income share of the bottom 40% of RSA’s population. Consequently the Gini coefficient is anticipated to drop from 0.69 to 0.60, respectively (Republic of South Africa| National Planning Commission, 2017).

Above and beyond these programs is the Social Security System that has always been in existence in the Republic of South Africa (RSA), prior to the country’s democratic transition in 1994. As such, Case and Deaton (1998) reported on how well developed the social security system in RSA is, consisting of both social insurance and social assistance as measures of improving the welfare of the middle-income country.

¹ In RSA, the term “Blacks” is representative of the African, Coloured and Indian/Asian population.

Despite current efforts to alleviate poverty in RSA, the advanced measure of the social security system, as argued by Van der Berg (1997), was a result of a welfare state for White people in the early 20th century. Furthermore, under prevailing social and political pressures for a more inclusive welfare system for all racial groups, the institution for social protection was then expanded. Likewise, the expansion signified the undeniably crucial role played by the social security system in the alleviation of destitution in RSA which will be discussed later on in this study.

Similarly, Lund (2002) analyzed the two perceivable limitations of the social security system and as a result maintained that there has been little progress under social insurance, as this requires monetary contributions from individuals and primarily caters for households who are within formal employment. Conversely, given that a large fraction of RSA's population remains unemployed, the expansion of the social assistance program has been attributed thus far by large cash transfers for those, who by economic indicators are deemed most socioeconomically vulnerable and excluded from the latter.

Equally, Letsoalo (2015) described the implementation of "social wages" as an endowment of policy measurements towards poverty alleviation. Furthermore, the author discussed social wages as the amenities provided within a society from public funds; these include the provision of basic necessities such as public healthcare facilities, public schools with no fees payable, social grants and the provision of piped water, sanitation and electricity. The main objective of these programs has been focused at achieving economic growth and development goals at international standards taking into account the disparities stemmed from the apartheid government in the RSA.

Expanding in the same logic, the description given by Letsoalo (2015) is adjacent to the main intent of the emergence of various social assistance programs aimed at welfare protection as well as reducing the level of deprivation in communities. Be that it may, the general consensus amongst authors maintains poverty as a multidimensional phenomenon which involves both money and non-money-metric indicators and by extension social grants have some relationship with the two types of poverty approaches in the process of reducing deprivation.

In a country with high levels of unemployment and deprivation, the conceptualisation of social assistance in this proposed study serves the purpose of assessing the standard of adequacy of social grants in terms of reducing poverty and improving social development. Be that it may, the RSA makes an interesting case study when taking into account not only the nation's political and economic chronicles in this contexts but also its extensive social assistance system and potential lessons of other Sub-Saharan African countries.

Similarly, Van der Berg, Louw and Du Toit (2009) argued that since the turn of the century, the decline in deprivation overtime has been attributed to the introduction and subsequent expansion of social assistance despite the lethargic performance of the labour market in recent years. However, 27 years since the advent of democracy and poverty reduction still remains as a big challenge to the RSA's economy. Likewise, despite the reduction of the racial wage gap the provision of inadequate public services which are intended as an escape from destitution continue to perpetuate a vicious cycle of privilege and poverty in society.

Moreover, given that there is government fiscal pressure on attaining Pareto-optimal redistribution of resources to the general public, Van der Berg (2010) highlighted that among the numerous redistributive instruments that lay at the disposal of the state, income distribution can be influenced through buying power. For instance, by establishing price floors on essential goods makes a difference in the lives of those deemed poor.

In addition, despite a plethora amount of literature on the impact of social grants on poverty alleviation, the incorporation of both the Totally Fuzzy Sets Approach and money-metric indicators has proven scanty in this context. Hence, the motive to comprehensively evaluate the extent of significance that welfare grants have when paralleled with the behavioural choices made by households who are grant-recipients on both money-metric and non-money-metric poverty probabilities.

1.2 Objectives of the study

The general research objective of this study is to investigate the impact of the social assistance system on the alleviation of poverty using data from the two waves of the Living Conditions Survey (LCS) conducted within the periods of 2008 to 2009 and 2014 to 2015. The specific research objectives are to;

- Examine the trends of social grant receipt in RSA in recent years.

- Conduct descriptive statistics on the demographic characteristics of those deemed poor and who are grant recipients.
- Conduct multivariate economic analysis on the target population, by employing probit regressions on both money-metric and non-money-metric poverty likelihoods, after controlling for differences in other characteristics, in particular social grant receipt status.

1.3 Outline of the study

The dissertation comprises of five chapters. Firstly, Chapter One presents a general background of poverty alleviation and the impact of social grants in the South African context, given the apartheid legacies that are still persistent in the “new dawn RSA”. The rationale and research objectives captured in this chapter will underline the significance of the problem statement guiding this study.

Secondly, Chapter Two will provide a literature review based on the conceptual theoretical frameworks engraved in the association of deprivation and the social assistance system. This will involve providing an overview of the legislative policies and procedures governing social transfers to respective households profiled as poor. In addition, an assessment on other relevant local and international past studies conducted from both money-metric and non-money-metric approaches. In turn, this chapter will assist in identifying possible gaps in the implementation of social grants as a measure to curb poverty.

Moreover, Chapter Three will consist of the data and methodology that will be employed for the study. This includes, the type of research methodology used for the target population. Chapter Four will provide empirical results which will be estimated following the outline stated in chapter three, such as probit regression and poverty decomposition by income source. Finally, Chapter Five will provide concluding points of the study taking account the main findings presented in the entire paper in order to assert policy recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides four main discussion points whose key highlights are founded on a comprehensive review of past literature conducted, that is, the conceptual framework, theoretical framework, RSA legislative framework of social grants and a review of past empirical studies. Firstly, section 2.2 presents the conceptual framework on how poverty and social assistance are defined. Secondly, section 2.3 of the theoretical framework provides an analysis of the different economic schools of thought that relate to the key concepts of the study. This is then followed by section 2.4; the RSA legislative framework of social assistance is reviewed in order to capture the different types and eligibility criteria of the welfare assistance program in the Republic. The fourth section 2.5 will then provide a review of past empirical studies conducted. Lastly, section 2.6 will conclude the chapter with possible research gaps that will be explored in this study.

2.2 Conceptual Framework

2.2.1 Defining Poverty

Overtime competing ideologies on poverty have played a prominent role in the existing conceptual framework out of which definitions of destitution have been developed as efforts of formulating robust policies aimed at the alleviation of poverty. Be that it may, the general concept of poverty is defined in terms of economic and social circumstances. Likewise, the description given by the World Bank (2001) below captures poverty as an economic state, political vulnerability as well as a measure of social class;

“Poverty is hunger. Poverty is a lack of shelter. Poverty is being sick and not being able to see a doctor. Poverty is not being able to go to school and not knowing how to read. Poverty is not having a job, is fear of the future, living one day at a time. Poverty is losing a child to illness brought about by unclean water. Poverty is powerlessness, lack of representation and freedom”. As cited by Walt (2004: 6).

Nevertheless, the concept of poverty can be construed within narrow or broad parameters. That is, the typical use of a one-dimensional poverty threshold approach that defines an aggregate population’s state of well-being is generally referred to as a narrow definition of deprivation. Equally, Posel and Rogan (2013) noted that the conventional use of money-

metric poverty lines which tend to adopt objective indicators such as the income and expenditure per capita can be described as a one-dimensional definition of poverty.

Whereas, the multidimensional description of poverty takes into account a range of facets that constitute a state of impoverishment. Similarly, according to Sen (1993: 31), as cited by Duclos and Arrar (2006), the paradoxical state of poverty can be defined as the “basic capabilities failure”. The idea around this argument is to define poverty as the degree to which an individual is able to do certain basic things which are deemed as necessities. In addition, the author further described poverty as a social and economic impediment that consists of any form of inequality and basic socioeconomic exclusions from the essentials of human dignity. Thus, as maintained by Bradshaw (2006), welfare deprivation also implies lack of asset-based resources, inadequate education and healthcare, vulnerability and powerlessness. Simply put both money-metric and non-money-metric dimensions jointly provide a holistic definition of poverty.

2.2.2 Poverty types and Measurements

2.2.2.1 Absolute versus Relative Poverty

The ambiguity of poverty can be simplified by two inter-related types of poverty. That is, the concept of absolute poverty and relative poverty. This distinction is paramount in order to understand the conundrum faced by policy makers when prioritising strategies and programs initiated for the alleviation of poverty.

Likewise, Ravallion (1988) defined the concept of absolute poverty in relation to the poverty line. As such, the author argued that absolute poverty exists when individuals and households have insufficient earning to maintain basic needs for physical efficiency such as food, shelter, education and more. Expanding on the same logic, the concept of absolute poverty encompasses aspects of both money-metric and non-money-metric deprivation. Hence, it is important to note that this type of poverty does not necessarily measure income distribution and that, by nature this approach is considered objective and invariant to change overtime for the prevailing persons classified as poor.

Conversely, the conceptualisation of relative poverty is closely associated with the question on inequality in society. Likewise, poverty in this context is implicitly concerned with the distribution of all prospective resources. For that reason, those deemed poor are categorised as

such by comparison to those who are considered non-poor in their environment. Hence, Townsend wrote:

“Individuals, families and groups in the population can be said to be in poverty when they lack resources to obtain the types of diets, participate in the activities and have the living conditions which are customary or at least widely encouraged or approved, in societies to which they belong. Their resources are so seriously below those commanded by the average family or individual that they are in effect excluded from ordinary living patterns, customs and activities.” (Townsend, 1979).

Simply put, relative poverty describes persons living below a “threshold computed from within the population of interest”. Consequently, this type of poverty allows for welfare deprivation to be defined within the specific community’s context. As a result, this allows for better poverty targeting for policy makers.

2.2.2.2 Poverty Lines

According to Ravallion (1998:10), one of the most popularised one-dimensional approaches of measuring welfare deprivation is the money-metric poverty line constructed in terms of per capita income-earnings and consumption as a reference point of well-being for a particular society. In addition, the author noted that poverty lines have two distinctive roles, that is, to determine the basic standard of living that distinguishes between those classified as poor from the non-poor as well as to establish social comparisons in society.

Be that it may, the conceptualisation and quantitative measurement of poverty may follow the concept of absolute deprivation. Likewise, in the South African context Stats SA (2015) maintained that this type of poverty line establishes a minimum socially acceptable standard for a predetermined welfare indicator to separate the poor from the non-poor. Although absolute poverty lines are assumed to be static in nominal terms overtime, adjusting for inflation allows for the analysis of poverty variations overtime.

Conversely, in the discussion of setting “best approaches” in identifying the poor and tracking poverty reduction policies to South African context, Woolard and Leibbrandt (2006) describe the nature of relative poverty as one that progresses with standards of living. The study further proposed two approaches of determining relative poverty lines. The first approach requires that a cut-off point p of the poorest percent be determined and use the income (or expenditure)

level at this point as the poverty line. An alternative approach requires setting the poverty line y percent of the national mean or median income (or expenditure) such that below this line a person may be classified as poor. In other words, the notion of relative poverty lines determines a cut-off point in the welfare distribution below which a given proportion of the society, in order to reflect a comparative standard of living. For example, at a 50% and 60% threshold, both the European Union and the Organisation for Economic Co-operation and Development use their national median income to set their poverty lines. Likewise, Foster (1998) described the nature of relative poverty lines as an explicit depiction of the income or expenditure distribution in society

Accordingly, Stats SA (2015) adopted an approach founded on the conceptualisation of both absolute and relative poverty in order to establish a poverty line that permits for broad changes in what constitutes as essential goods and services of survival at a given period.

Furthermore, using the updated consumption basket captured in the Income and Expenditure Survey 2010/2011 Stats SA (2015) employed the cost-of-basic needs method (CBN) to construct the Republic's poverty line in order to conceptualise welfare as comprising of consumption or fulfilment of non-food and food needs. As a result, three levels of the poverty threshold (in 2011 rands) were determined.

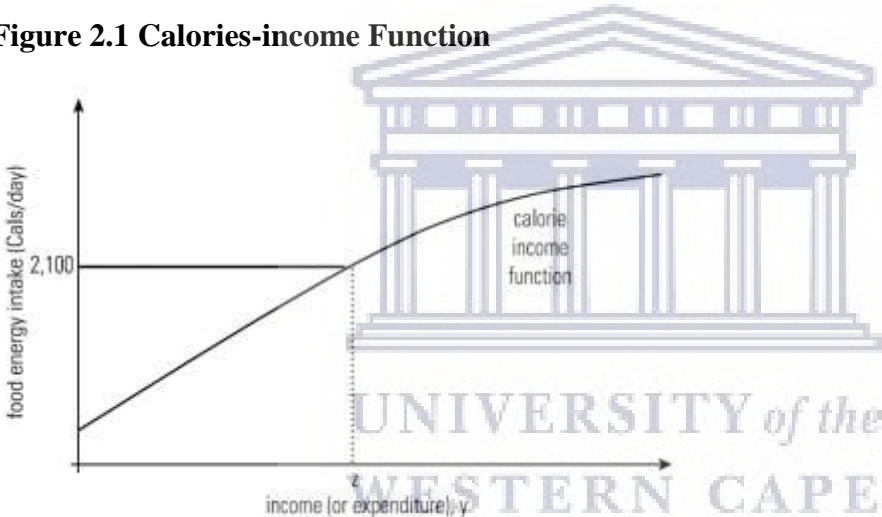
- Food poverty line (R335): this was constructed using information on item-specific consumption expenditure levels, household composition and price data from the Consumer Price Index (CPI). This reference threshold defines the rand value below at which individuals and households are unable to purchase or consume a minimum of approximately 2 100 kilocalories of energy requirement for good health.
- Lower-bound poverty line (R501): likewise, this was constructed based on households whose total expenditure was equal or close to R335 (per capita per month) and their average non-food expenditure at the mid-point of the IES which amounted to R166 (per capita per month).
- Upper-bound poverty line (R779): Similar to the latter, this was constructed based on households whose total expenditure was equal or close to R335 (per capita per month) and their average non-expenditure at the mid-point of the IES which amounted to R444 (per capita per month).

Nonetheless, Haughton and Khandker (2009) maintained that the CBN method is commonly used in the case where price information is available. That is, beyond the assumption of

stipulating an adequate consumption bundle of both food and non-food items, the CBN also allows for the estimation cost of each bundle with respect to each subgroup (i.e. urban, rural and more).

While in occurrences whereby information on price is unavailable the use of the food energy intake method (FEI) is recommended. Concurrently, the authors further described the FEI as a method that aims to determine the consumption level of expenditure (or income) that permits households to obtain substantial amounts of food to meet the energy requirements per person per day. Similarly, the FEI observes the consumption of both non-food and food items while allowing for differences between subgroups. In addition, the underlying assumption of this method is that as income or expenditure rises this triggers a rise in food energy, although typically at a slow rate as illustrated in Figure 2.1 below (Ravallion, 1998).

Figure 2.1 Calories-income Function



Source: Haughton and Khandker (2009).

The figure illustrates the calories-income function which is described by Haughton et al. (2009) as a relationship between food energy intake (plotted on the vertical axis) and the income or expenditure (plotted on the horizontal axis). Likewise, the function is formally defined as;

$Z = f^{-1}(k_{min})$, whereby Z denotes the poverty line as an inverse function of a given minimum adequate level of calories.

Moreover, other developed countries such as Canada and the United States have also used money-metric thresholds adjusted for inflation but slightly differ in their descriptions. Statistics Canada (2015b) applies the Low-Income Cut-Off (LICO) which is based on how

much households retain after paying tax and how much of that income is spent on essential needs. Whereas, the United States Census Bureau employs the Official Poverty Measure (OPM) which compares pre-tax income against a threshold set at three times the cost of a minimum food diet.

Thus, on a global spectrum the World Bank (2016) redefined the global poverty line as \$1,90 (which was previously set at \$1,25) based on the International Comparison Program (ICP) purchasing power parity (PPP) calculations. The global poverty line was established to primarily determine the cost of living and as such, is evaluated using global key commodities.

2.2.2.3 Foster-Greer-Thorbecke Indices

In 1984, James Foster, Joel Greer and Erik Thorbecke proposed the use of the Foster-Greer-Thorbecke (FGT) indices as a class of poverty measures. Concurrently, Foster et al. (1998) noted that the FGT index places a variation of weights on the income (or expenditure) level of persons classified as poor in society. Likewise, Haughton et al. (2009) described the FGT index as an example of a group summary measurement that deals with quantifying the incidence of poverty in terms of an absolute and relative money-metric approach.

The FGT tool consists of indices such as the poverty headcount index, poverty gap index and the squared poverty gap index. Accordingly, Table 2.1 below provides a summary of the conceptualisation of this technique as per index.

Table 2.1: FGT indices

Index	Definition	Pros	Cons
Headcount index (P_0)	Measures the poor as a proportion of the entire population.	Easy to construct and interpret.	Ignores the intensity of poverty.
Poverty gap index (P_1)	Measures the average sum of people that fall below the poverty line.	Indicates the minimum cost of eliminating poverty.	Assumes policy makers have perfect knowledge on the exact minimum cost needed to reduce poverty.
Squared Poverty gap index (P_2)	The weighted sum of poverty gaps, as proportion to the poverty line.	Allows for varying weights in respect to income (or expenditure) levels of the poorest members of society.	Lacks intuitive appeal and difficult to interpret.

Source: Haughton and Khandker (2009).

Formally, the FGT index is defined as the function;

$$P_{\alpha} = \frac{1}{n} \sum_{i=1}^q \left(\frac{z - y_i}{z} \right)^{\alpha}$$

Where;

Z = Poverty line

y_i = the i -th lowest income (or other standard of living indicator)

n = Total population

q = Number of persons who are poor

$\alpha \geq 0$ as a poverty aversion parameter

In addition, Haughton and Khandker (2009) argue that the FGT index significantly captures the severity and depth of poverty incidence for policy targeting and implementation. Furthermore, other measures of deprivation are available such as the Sen-Shorrocks-Thon index which makes use of a decomposed version of the previously mentioned indices to illustrate the sources of changes in poverty. In addition, the Watts index may also be used to illustrate the time taken to exit the trap of poverty in relation to the economic growth rate per capita income of those deemed poor in society (Haughton and Khandker, 2009: 67-68).

2.2.3 Defining Social Assistance

The flexibility of the general definition of social security is attributed by the fact that it is country-specific in nature. Likewise, as cited by Dekker et al., (2009), Berghman (1991: 10-11) proclaimed that, among others, structural and cultural characteristics of a country determine the “content of social security”. Similarly, Mpedi (2008: 5) argued that due to the elastic nature that differs from one country to another, there is no universally approved and precise definition of social security.

In the South Africa context, Van der Berg (2015) mentioned the two major components of the Republic’s social security system. Firstly, the occupational insurance (also known as social insurance) that hinges on income contributions of persons within the formal employment and includes the following;

- Retirements benefits for a large part of those in the formal labor market;
- A somewhat inadequate system for workers compensation;
- A system for unemployment insurance which cannot address the major unemployment risks associated with structural rather than cyclical unemployment; and

- Health or medical insurance for some of the employed and their dependents.

The second major component is the social assistance, which the author describes as the most influential type of social spending in terms of primary income distribution. Accordingly, as stated in numerous policy documents and academic research, defining social assistance security may be within the parameters of listed social contingencies or in terms of the parties responsible for its administration. Among others, these social risks include the protection from loss of income earnings due to unemployment, injuries at work, child support and any other social contingency that makes poverty inescapable for individuals and households. Likewise, as cited by Makhetha (2015), the definition provided by the International Labour Organisation (ILO, 2000) encompasses;

- Protection by society against economic and social distress;
- Series of public measures such as payments of benefits;
- Provision of medical care;
- Provision of subsidies for families and children; and
- Members of society who have no or insufficient income.

Conversely, Mpedi and Strydom (2002) argued that the ILO's definition poses limitations to the holistic perception of social security. That is, the implicit exclusion of informal measures such as informal investment societies found in RSA (also known as "stockvels") and significant association made to formal employment creates "social insurance bias". Evidently, from an international context the United States Social Security Act (US Code title 2) defines social security within a narrow spectrum of insurance programs. Similarly, Mkandawire (2010) described the well-developed European welfare system as a variety of contributory programs.

Moreover, in the South African context, social security policies are constructed based on the four realms which are; poverty prevention, poverty alleviation, social compensation and income distribution (Strauss & Horsten, 2013). In addition, through contributory and non-contributory schemes such policies are instituted to ensure adequate economic and social assistance during certain life stages or even in the case of uncertain economic shocks.

Hence, Howell (2001) emphasized that social assistance needs to be viewed as an approach towards increased social and economic participation. For that reason, Walt et al., (2004) also suggested that a more holistic definition of social assistance should be described beyond the

boundaries of fiscal and occupational welfare or even the restrictions of enumerated social risks is more appropriate for the conviction it is intended to serve. Likewise, the Taylor Committee (2002) determined social assistance as a primary goal towards poverty alleviation in which efforts are placed on the redistribution of resources with an extensive coverage of the designated categories of the society.

In view of that, for the purpose of this study social assistance is defined within the frameworks of human rights, protection against economic and social distress such as vulnerability or poverty. That is, given the multiple ways of defining the concept of poverty and the association of social assistance, it is imperative to examine the schools of thought that can be considered as the fundamental blocks in conceptualising and constructing relevant measurements of deprivation. Townsend (1979: 64) described the theories of poverty and the welfare relief system as complimentary instruments in the formulation of development policies.

2.3 Theoretical Framework

2.3.1 Poverty Theories

Allen's (2010) discussion on poverty includes examining the nature of deprivation by bridging the gap between the psychological and economical aspects that assist in defining and measuring this concept. Consequently, this section aims to discuss theories of poverty that have emerged partially as responses towards the proposed hypothesis and assumptions of mainstream economic schools of thought.

2.3.1.1 Classical theory

One of the conventional assumptions made by the classical economic school of thought is the inefficiency of the marketplace and hence, that wages are a resolute reflection of an individual's productivity. Furthermore, this approach dismisses state intervention for the primary hypothesis that poverty is perceived as a result of poor decision-making or lack of self-control by individuals. Likewise, the assumption of inefficiency as a result if government intervention is based on the notion that incentives such as welfare programs similar to social grants tend to exacerbate poverty instead of incentivising its reduction.

For that reason, as cited by Bourgois (2015) the subculture of poverty theory was first uncovered by anthropologist Oscar Lewis (1966) with the aim of examining poverty as a persistently inescapable social behaviour by certain groups of society. This school of thought

asserts deprivation as a generational trend amongst those who are already classified as underprivileged, a status that perpetuates itself because of the effects it has on the children who grow under the conditions of subculture poverty. These conditions include the normalization of poverty by the affected groups, as well as a sense of hopelessness, dependency and powerlessness.

However, amongst various authors who have criticised this theory, Motloung and Mears (2002) argues that the subculture of poverty is a distorting and simplistic notion of human behaviour. Furthermore, the author describes this notion as a passive way to characterize those dealing with the oppression of social and economic exclusion.

Similarly, the behavioural/decision based theory asserts poverty as a psychological aspect from a basic behavioural economics perspective which relates the individual and their environment to the economic system. Most studies on behavioural economics as an approach to poverty research build on the idea of poverty as a mind-set and aspiration deficit. Jackman and Miller (1996) describe this theory of deprivation as poor decision making by those poverty-stricken, whereby the existence of prevailing impoverishment creates a mental framing that ultimately affects the aspiration capacity of persons that constitute as poor. Hence, the majority of policy recommendations in this context place much emphasis on raising the deprived person's productivity through labour market participation.

2.3.1.2 Neoclassical theory

In the introduction of "Marshall's Principles of Economics" noted by Guillebaud (1942), the author developed a theory on the different market periods explained by price, supply and demand curves. Following this, the neoclassical theory was developed as a build-up on the classical theory. That is, both classical and neoclassical theories over emphasises monetary aspects, the individual as opposed to the group and a limited role for government.

Equally with the classical approach, the role of state intervention is questioned among neoclassical philosophers, although targeted policies to address market failure may be warranted in some cases. However, on the other hand Banerjee and Duflo (2012) noted that as the classical theory stresses "poor choices", these can sometimes be rationalised at small-scale policy interventions aimed at shifting incentives (as cited by Ravallion, 2012). Alternatively, in the neoclassical approach much emphasis is placed on the role of unequal initial

endowments of talents, skills and capital which govern productivity of an individual in generating poverty, within a market-based competitive economic system.

Likewise, the neoclassical theory can be further explored by the orthodox economic theory of human capital which bears the assumption of perfect market completion and equilibrium. Davidson (1985) relates the traditional economic theory to labour productivity and wages, by stating that there is a positive correlation between the two variables such that an individual's productivity is highly incentivised by an increase in their wages. Taking this into account, one would assume that the behaviour or decision making of the poor would improve their social and economic welfare. In addition, Motloun and Mears (2002) found that this theory contributes to policy implications such as the GEAR program in South Africa in terms of readdressing the persistent income inequalities that give birth to poverty.

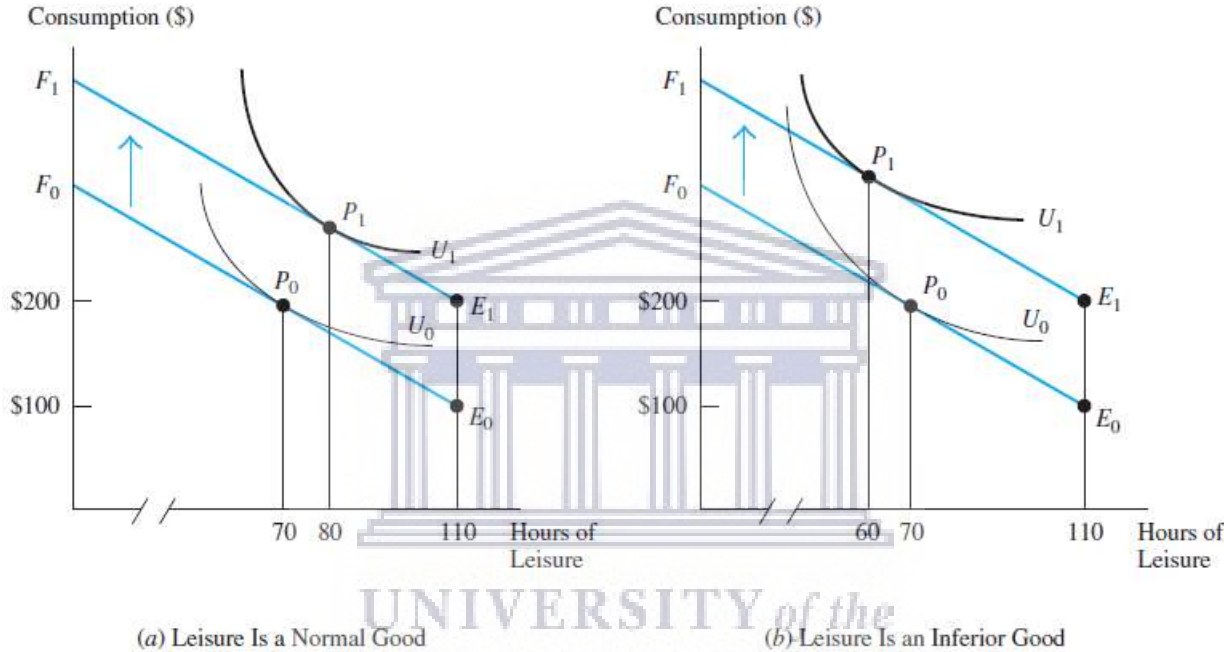
Finally, Stark (2009) discussed the theory of poverty as a structural failing which describes how poverty stems from the structural vulnerability or unfair economic and political systems that tend to inflict a prejudicial distinction amongst the poor and non-poor. Likewise, Motloun and Mears (2002) emphasised the applicability of this theory to South Africa due to the nation's previous regime that resulted in the present inequalities of all forms including deprivation. More to the point, the authors argued that the basic purpose of any country's political and economic system is state intervention with policy implications of promoting equality amongst all and that programs such as the RDP are active measures in ensuring equality and poverty alleviation.

2.3.2 The Labour-Leisure choice model on social assistance

Borjas (2000) argued that for a model analysing possible labour force participation, the reservation wage serves as the primary aspect of the decision whether to work or not. In other words, it is the minimum wage rate at which an agent will accept employment. As an example, the author made reference to a disability grant noting that if the respective grant recipient were to return to work, the market wage would need to exceed the reservation wage. Likewise, in a model whereby a choice is made between labour or leisure, Bloemen and Stancanelli (2001) argued that leisure assumes the position of a normal good such that, the reservation wage increases as non-labour income increases (social grant transfers). As a result, there would be an increase in the consumption of leisure relative to working hours. Accordingly, this phenomenon is demonstrated in Figure 2.2 (Borjas, 2016).

In Figure 2.2 the author unpacked the effects of a change in non-labour income on the hours of labour. That is, for both graphs the vertical axis reflects the unit income (or consumption in terms of the US\$ dollar) and the horizontal axis measures the hours allocated to either leisure or labour. Additionally, the line E_0F_0 represents the budget line such that an increase in non-labour income (i.e. social grant receipt) will lead to an upward parallel shift with the new budget line defined by E_1F_1 . Concurrently, this moves the observed person(s) from point P_0 to P_1 of their maximum utility on the indifference curves (i.e. from U_0 to U_1).

Figure 2.2: The Effect of a Change in Non-Labour income on Individual Labour Supply



Source: Borjas (2016: 36).

Further, graph (a) assumes leisure as a normal good such that, an increase in non-labour income (i.e. receipt of social grants) will result in more hours allocated to leisure and less hours to labour. That is, in this context social grants are considered to have a discouraging effect towards participation in the labour market and essentially lead to a negative impact on labour supply. Thus, the author refers to this as an income effect.

On the contrary, in graph (b) leisure is assumed to be an inferior good such that, an increase in non-labour income (i.e. also, social grants) leads to more hours allocated for labour and less hours to leisure. In this case, social grant recipients are incentivised to seek work using their cash transfers to proactively seek employment. As a result, a substitution effect in this case is observed.

Thus, in both cases since there is an increase of non-labour income, poverty is expected to decrease accordingly since total income increases. Whether poverty will decrease further depends on whether the person works in the labour market to earn a wage income.

2.4 SA Legislative Frameworks of Social Assistance

In the South African context, the fundamental paradigm in which the state's fiscal and monetary policies are governed is referred to as the Constitutional Framework which is commonly known as the supreme law. Driven by democratic ideologies, the various government institutions are explicitly obliged to adhere and implement the necessary constitutional entitlements embodied in the Bill of Rights. Hence, this section presents discussions on the progressive nature of the legislative and regulatory framework that define Social Assistance for the populace of RSA, more specifically those deemed vulnerable in terms of social and economic activities.

After 1994 the accepted democratic state of RSA, as Brockerhoff (2013) maintained, was committed to creating social policies to readdress a society that had inherited the socioeconomic inequalities of its former regime. In view of that, the Constitution of the Republic of South Africa, 1996 emerged. As noted by Makhetha (2015), the constitution implicitly tasks the different spheres of the state to provide social assistance to persons living in deplorable conditions and who are unable to fend for themselves and their dependants.

Accordingly, Section 28(1) of the constitution stipulates the basic rights of children in terms of nutrition, shelter, healthcare and other social services. In addition, Section 4 of the constitution further identifies welfare services, population development and disaster management as functional areas of concurrent national and provincial legislative competence (Department of Social Development, 2020).

Be that as it may, the emergence of the Social Assistance Act of 2004 introduced financial assistance among other pre-existing pro-poor welfare grants. As pointed out by Mpedi (2008), the primary objective of the Act apart from the previously mentioned, is to determine the eligibility and administration requirements for the transfer of social grants. In a broader spectrum, social assistance in RSA provides coverage against social contingencies of three vulnerable groups; children, the elderly and disabled. Following this are the various grants codified in the Act which include; the Old Age Grant, Disability Grant, Care Dependency

Grant, Child Support-Grant, Foster-child Grant, War Veterans Grants and the Social relief Grant.

Furthermore, the administration of social assistance is largely regulated by the means test. Siebrits et al. (2015) defined the means test as a standard criteria used to evaluate the eligibility of persons to attain grants. The word “means” refers to income and assets of applicants and as such, Van der Berg, Siebrits and Lekezwa (2010) noted the elements of the South African social security framework in Table 2.2 below.

Table 2.2: Elements of the South African social security framework

Children	Working age ²	Retired/ Elderly
Means-tested child support grants	Work-related injury compensation	Means-tested social pensions
Means-tested care dependency grants	Means-tested disability grants	Means-tested war veterans ⁴ grants
Foster care grants	Temporary unemployment benefits	Occupational pensions

Source: Van der Berg et al. (2010).

2.5 Review of Past Empirical Studies

As discussed in the previous sections, the social assistance system plays a crucial role in context to promoting socioeconomic development. In the particular case of RSA, several studies have shown that the primary contribution of social assistance programs for households remains as the essential provision of income security. Likewise, given the significant coverage size of RSA’s social assistance system and fiscal costs thereof, this section aims to ascertain the impact of social grants on poverty by examining past empirical studies that have employed one-dimensional or money-metric and multidimensional approaches in this context.

Although there are some international studies conducted on the relationship between poverty and welfare programs (Barrientos and Sherlock (2002); Faria (2002); Skoufias (2005) Rowlings and Rubio (2005)), the conceptual stance assumed by these studies on welfare

² According to Stats SA (2020) the working age- reference is made to persons who fall in the range of 15 years to 64 years of age, even though some RSA social grants are administered to persons as early as 60 years of age. Table A.1 in the Appendix shows the eligibility criteria per social grant, taken from Social Grants Summary 2012/2013 published by Backlash and updated grant values for 2020 by SASSA.

assistance is limited for this proposed study. Hence, for the purpose of this investigation, this section will focus on reviewing recent local empirical studies.

2.5.1 Studies that reviewed the relationship between poverty and social grants

Over the years social grants in RSA have been well-targeted such that a decrease in deprivation levels has always been accompanied by inclined effective social assistance programs as a remedy tool (Case and Deaton, 1996). Likewise, this phenomenon was well captured by the DSD (2003) which found that approximately 45% of the poverty gap in terms of money-metric poverty lines was reduced by the presence of social grant transfers. In particular, the report illustrated that the most effective of them all was the CSG with the potential of reducing the poverty gap by 16.6% when age eligibility was extended to 14 years and by 21.4% when extended to 18 years of age.

Further, during the 2009/10 fiscal year approximately R84 465 729 million was reported as the actual expenditure allocated to SASSA with the intent of providing a more comprehensive social security package with the primary focus on income support (DSD, 2011). Simultaneously, the DSD reported that the social assistance coverage had significantly increased by 7.72% from an aggregate of 13 008 104 beneficiaries in 2009 to 14 012 143 in 2010. More specifically, the annual report noted that the CSG had increased by 9.10% in recipients as a result of the state's decision of extending the age eligibility criteria. Likewise, other notable increases in beneficiaries were found in the FCG (7.62%), OAG (6.57%) and the CDG (5.23%).

Moreover, drawing from the 2013 RSA Budget and SASSA 2013 annual report, Brockerhoff (2013) noted the proportion of social grant receipt by regional areas under the reviewed fiscal period. Subsequently, the author found that the Eastern Cape Province was the leading region with 40.44% claims for welfare pensions. This was followed by Limpopo with 38.87%, Kwazulu Natal with 36.50%, Northern Cape with 36.32% and the Free State with 34.09% of social grant recipients. These results are not surprising when considering the vast population size, age structures and relatively poor states of welfare of the majority populace in these provinces relatively compared to the Western Cape (21.96%) and Gauteng (17.25%) respectively. Thus, the author maintained that during the period of 2009 to 2014 approximately 3.4% of the GDP had been allocated to social grant spending resulting in an aggregate of 30.31% of grant-recipients.

Accordingly, these findings are parallel to those noted by Lekezwa (2011) who used the 2002-2007 GHS data to show that in rural provinces like the EC, Limpopo and KZN there was at least one social grant beneficiary in the households. In addition, the author maintained that of these households, 57% were female-headed households and 42% were headed by males. Further, the study illustrated in terms of racial class that 94% of these households had African household-heads and only 6% was accounted for by Coloured household-heads.

Moreover, using the IES 2005 the 2009 Armstrong and Burger study began the empirical analysis by examining the percentage contribution of each income source to total household income and found that social grants' share was 7%. The study then proceeded to investigate the FGT indices on the headcount ratio; it was found that this ratio decreased by 0.138, 0.077 and 0.024, at the R2 532, R3 864 and R7 116 poverty lines, respectively. The study also conducted poverty decomposition by income source, and found that social grants' absolute and relative contribution to poverty headcount reduction were 0.047 and 9% respectively.

Expanding on the same logic, the study emphasised that the cut-off point of monetary poverty thresholds has a significant impact when assessing the impact of welfare transfers on the state of impoverishment. Similarly, through decomposition analysis of the five quintiles of households' income distribution, Lekezwa (2011) maintained that during the period of 2002 to 2007 there was a rising typical reliance on non-contributory social pensions by households found in the first two quintiles (i.e., the poor) relative to those found in the last two quintiles (i.e., the rich).

Further, Satumba, Bayat and Mohamed (2017) used the IES 2010/11 data and also employed the money-metric poverty decomposition technique to investigate the impact of social grants on poverty in RSA. Upon placing emphasis on the poverty headcount index, the authors confirmed that social grant targeting was an effective redistributive mechanism to significantly reduce the state of deprivation in areas identified with extreme poverty rates. Concurrently, as a result of social grant receipt the authors' empirical findings demonstrated that in the particular case of provinces such as Limpopo and the Eastern Cape poverty was reduced by 17% and 21% respectively. Further demographical decomposition illustrated that there was a 17% decline of impoverishment for female-headed households relative to that of male-headed households of only 7%. Finally, the authors reported that the provision of social grants in rural areas significantly reduced poverty by 21% when compared to the 6% decrease attributed by urban areas.

Lastly, the most recently released 2021 study by Borhat, Oosthuizen and Stanwix used the National Income Dynamics Study Coronavirus Rapid Survey (NIDS-CRAM) to conduct a policy assessment on social assistance in RSA amidst the Covid-19 epidemic. The analysis involved a comparison between the state's support package and an initial proposal of the CSG increase. The empirical findings indicated there is still a need to review the current coverage of income support through social grant transfers as low-income earners reach as far as the seventh decile. Moreover, the Covid-19 grant had greater coverage potential of vulnerable groups however negative cost implications for poorer households was noted as a result of upper middle income deciles (i.e. who are generally perceived as "better-off" relative to persons found in lower deciles) who received additional income support in this context.

In an overall effort to emphasise the relevance of social assistance as a mitigation technique on Covid-19 related income shocks, using the benefit-cost ratio analysis, the authors found that for every one billion rand spent the CSG boost policy significantly reduced poverty by 1.5%. Relatively, models similar to the state's stimulus package, such as the strict Grant plus (1.2% effect) and broad Grant plus (1.06% effect) evidently had the lowest benefit cost ratio. Accordingly, following the announcement of the "re-introduction of the special Covid-19 SRD Grant" a briefing by the Minister of Social Development emphasised the significance of establishing a Basic Income Grant that would provide welfare assistance to the criteria of persons identified eligible for the Covid-19 relief grant. The Ministers' stance was further justified by the NIDS-CRAM findings on the impact of Covid-9 relief grants that had influenced a decline in the number of households found below food poverty line from 20.06% to 18.8%, while inequality reduced from 0.644 to 0.613 during the periods May and June 2020 (DSD, 2021).

2.5.2 Other studies in connection with social grants

Mackett (2020) investigated the labour market effect on poverty likelihoods for persons who were grant-recipients and non-grant recipients. Through the use of the NIDS data of wave one and five, the author estimated transition matrices and binary regressions to determine labour market trends conditional to the probability of persons being poor. As a result, the author noted that during 2008 to 2017 the increase in social assistance beneficiaries was accompanied by an increase in the unemployment rate as the overall GDP dipped in 2006 from 6% to 1% in 2018. Notwithstanding, the study further illustrated that for grant-receiving households 44.08% of unemployed individuals in wave one became employed in wave five,

while 21.74% remained unemployed in both waves. Conversely, in non-grant receiving households 84.04% of individuals remained employed for both periods and 67.18% of persons unemployed in the first period moved to employment in the wave five.

Schiel, Leibbrandt and Lam (2014) also made use of the NIDS from the PSLSD in 1993 and 2008 to investigate the impact of social grants on poverty and inequality. Likewise, the authors employed poverty decomposition and as a result found that a 1% increase in social grant transfers essentially led to a substantial marginal decrease in the total income inequality of the Gini coefficient in RSA. Given this, Lam et al.(2014) noted that during the period of 1993 to 2008 labour income had a “disequalising” effect on total income inequality by increasing the Gini coefficient by 1.7%. Interestingly, the OAG also had a negative impact on total income inequality by increasing the overall Gini coefficient by 3.9%, whereas other state transfers³ reflected an equalising effect that reduced inequality by 6.6%.

Moreover, Mutasa (2012) employed the multivariate regression analysis to evaluate the individual labour force participation in relation to the provision of the DG. The author’s data was drawn from the GHS 2007 wave with the noted overview that the tremendous growth of the country’s welfare assistance coverage and uptake during 2007 to 2008 had more than doubled overtime. However, given the general LFPR’s of 56% under the reviewed period, only 25% of individuals with disabilities participated in the labour market. Further, under the narrow definition, individuals with disabilities but were identified as non-recipients of the DG represented approximately 35% of the labour force (while this share was only 9% for grant recipients with disabilities). Likewise, under the broad definition of labour force, these corresponding shares were 40% and 9.5% respectively.

Furthermore, Mutasa (2012) employed the standard probit and probit instrumental variable regressions in efforts of estimating the marginal effects of the LFPR when DG recipients were observed as the “treated group” while disabled individuals who were non-recipients of the DG were accounted as the “control cases”. The study found that although there were marginal differences between both DG status (i.e. non-recipients and recipients), empirical results indicated significantly negative effects on the labour force participation likelihood when DG was received with a decrease in the labour market ranging from 19.2% to 21.3% for the full sample observed. While on the other hand, for male grant-recipients this decline in the labour market participation hovered between 18.4% and 19.8%, which was relatively similar for

³ No specification given on which other state transfers the authors are referring to.

females, accounting for 17.6% to 19.9%. Notwithstanding, the study cautioned that ascertaining a true reflection of the effect of the DG on the labour market supply is rather difficult when considering the differential disability severities (also ascribed as “health effects”) between DG recipients and non-recipients.

Moreover, Klasen and Woolard (2005) argued that the attachment of unemployed non-grant recipients to welfare transfer recipients’ households typically results in the subculture of generational poverty traps as this places a hefty strain on the respective household’s resources. Likewise, Posel (2004) maintained that the provision of social pensions facilitates the incentive of active job searching and that there is no robust evidence that proves otherwise. In addition, the author conducted a survey on a sample of unemployed individuals in the Eastern Cape and Western Cape provinces which found that the respondents attained no pleasure on the sole reliance of social grants as their main source of a sustainable and adequate standard of living. Furthermore, supporting arguments by parents from the survey sample presented the notion that the monetary value of social grants is not sufficient enough to meet the continuously changing needs of (at times, overcrowded) poor households, more specifically where the CSG is concerned. This phenomenon is well illustrated by Lekezwa’s (2011) study which found that 41% of the majority households’ main source of income was explained by the labour market wage, while 31.2% were still unemployed and relied solely on the provision of social grants.

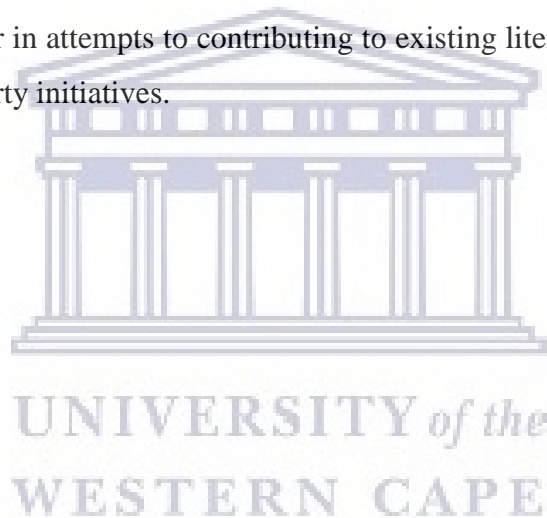
Finally, despite the unprecedented size of RSA’s social assistance system, Van der Berg and Siebrits (2015) maintained that the absence of a separate social grant that accounts for structural unemployment still signifies a large gap in the existing welfare system of the country. Similarly, Klasen and Woolard (2005) emphasised that the insignificantly low labour market participation rate and employment prospects of prime-aged adults in RSA was highly correlated with remittance income, pension income and other non-wage private income transfers.

2.6 Conclusion

Beyond doubt, the various conceptual perceptions discussed in this chapter all draw to one prominent consensus. That is, the provision of social grants in RSA has unquestionably contributed to reducing the poverty gap to certain extent overtime. However, debates on the adequacy of the social assistance program which are rooted from individual and household level, inclining all the way to the governance of state transfers remains blurred.

As a result, given a plethora of available studies on welfare reform with the discourse of the 1990s and early 2000s, presently there are very few recent strong evaluations in this context. Likewise, the common use of one-dimensional or money-metric approaches in conceptualising and quantifying the incidence of poverty revealed outdated results by most past studies reviewed. In addition, the past studies reviewed hardly examined the impact of social grants receipt on non-money-metric dimensions of deprivation. In turn, this limits the scope of modifying existing policies aimed at boosting job skills and other socioeconomic prospects faced by those deemed as poor in the RSA society.

Lastly, for some social assistance programs for instance the FCG and Social-relief grant, there is little evidence of their effect on the respective households characterised with a state of deprivation. Accordingly and not limited to, for the purpose of this study such research gaps will be investigated further in attempts to contributing to existing literature on the progressive nature of RSA's anti-poverty initiatives.



CHAPTER THREE: DATA & METHODOLOGY

3.1 Introduction

Despite contestations on no objective or definite index of poverty measurement, the following chapter outlines the type of research methodology and data used in this study for the respective target population. That is, in section 3.2 the LCS data which illustrates deprivation patterns over the period of 2008/09 and 2014/15, is discussed. Following this, section 3.3 presents the methodology which applies both money-metric and non-money-metric approaches in quantifying the impact of social grants on the incidence of impoverishment in RSA. In particular, methodological discussions are centralised around, absolute and relative poverty approaches; descriptive analysis; poverty decomposition by income source and probit regressions employed in context to this research.

3.2 Data

This study uses the two waves from the Living Conditions Survey (LCS) data on the periods of 2008 to 2009 and 2014 to 2015, which will be sourced from Statistics South Africa (Stats SA). Stats SA is a national statistics service with the goal of producing timely and accurate statistical information that assists in advancing economic growth and development in South Africa.

The first wave of the LCS in South Africa was conducted by Stats SA between September 2008 and August 2009 with the main aim of providing data that will contribute to better understanding of living conditions and poverty in SA for monitoring levels of poverty overtime (Stats SA, 2015). The second wave was conducted over the periods of October 2014 till October 2015 with two primary objectives which focus on the provision of statistical information on: (a) household consumption expenditure patterns to inform the updating of the consumer price index (CPI) basket of goods and services and (b) poverty levels and patterns (Stats SA, 2017).

The combination of both waves provides information on data collected from more than 28 000 households across the country over the period of 12 months. The survey used a combination of diary and recall methods. Whereby, households were required to complete their daily acquisitions in diaries provided by Stats SA and to answer a variety of questions from the household questionnaire administered by Stats SA on a variety of topics. These include household expenditure and income, relative and subjective poverty as well as

questions on social assistance (Stats SA, 2017). In addition, the LCS captures money-metric and non-money-metric welfare as well as recipients of social assistance programs comprehensively, relatively compared to the General Household Survey (GHS) and the Census. More specifically, in both LCS waves the information on the receipt of all seven types of social grants was captured in detail.

3.3 Method

The empirical modelling employed in this study aims to examine the impact of social grants on the alleviation of money-metric and non-money-metric poverty in South Africa. Simultaneously, with the use of the two available waves of the LCS, this section provides a brief discussion on the various explanatory variables that constitute as functions of determining the poverty status in order to attain a robust reflection of the South African welfare state over the periods of 2008 to 2009 and 2014 to 2015.

3.3.1 Absolute poverty approach

This study uses the money-metric absolute poverty line which is maintained by Hargreaves et al. (2007) as an estimation of the per capita income and expenditure the households need to acquire and sustain adequate minimum standard of living. Likewise, the lower bound poverty line of R501 (which consists of both food and non-food components) is inflated using the Stats SA CPI headline index of 2016 December prices in order to derive the poverty line of R689 per capita per month (Stats SA, 2017).

3.3.2 Relative poverty approach

As explained in section 2.2.2, the relative approach takes into account a multifaceted spectrum of poverty components. For that reason, this study employs the Totally Fuzzy Sets Approach in order to evaluate the welfare or lack thereof by addressing the inexplicitness of destitution which is a result of vertical and horizontal vagueness of poverty. Unlike the absolute poverty line which assumes binary estimations of “yes” (for poor) and “no” (for non-poor), this approach takes into consideration that the level of impoverishment can gradually change for the poor.

Moreover, this approach of multidimensionality was first developed by Zadeh (1965) which was then modified later by other authors such as Cheli and Lemmi (1995) and has remained as an understated corner stone for compounded measurement of welfare. Moreover, the concept of classical theory suggests that an element with nothing in between can either be

fully included or completely excluded. For example, a number is either part of real numbers or not.

Nonetheless, in the case of fuzzy sets there is an exception such that an element is permitted to partially form part of a given set. In view of that, the fuzzy sets can be described as a generalised case of the classical theory where there are classes in which the transition from membership to non-membership takes a gradual process (Naidoo, 2007).

Similarly, when Cerioli and Zani (1990) applied the Totally Fuzzy Set Approach, the measurement of a particular aspect of poverty was characterized by a whole series of variables. At this point, the estimation tool is essentially the degree of membership of the arrangement of deprived in each dimension, the fuzzy sets permits for multidimensionality of deprivation to be used in assessing a person's state of impoverishment. The membership function behaves as a deprivation indicator which illustrates the overall destitution of households relative to their surroundings.

Expanding on the same logic, similar studies on poverty have incorporated the weighting system equations initiated by Cerioli and Zani (1990) to further illustrate the relativity of destitution among households by examining the horizontal and vertical attributes. In support of this argument, Burger et al. (2017) further described the weighting function which also illustrates the average deprivation experienced in each dimension, as “the inverse function of the number of individuals who are deprived in terms of each dimension”.

$w_j = \log \left(\frac{1}{\bar{\delta}(x_j)} \right)$: as the actual weighting function

whereby; $\bar{\delta}(x_j) = \frac{1}{n} \sum_{i=1}^n \delta(x_{ij})$: as the average deprivation encounter in each dimension.

Consequently, the distinguished bounds are zero and one such that, if the membership function takes on the value one then that illustrates a case of absolute hardship while the value zero would indicate the absence of deprivation. On the other hand, when calculating the deprivation index this requires making use of the average weight of member functions of each dimension of impoverishment such that a greater weight is assigned to the lowest frequency of deprivation according to a given poverty indicator (Cheli and Lemmi, 1995).

Thus, the derived fuzzy sets index at the 40th percentile in the 2008/2009 LCS will be used as the relative poverty line to distinguish the non-money-metric poor. Likewise, the variables included in the derivation of the fuzzy sets index are captured comprehensively in the LCS questionnaires and among these are the seven types of social grants discussed in section 2.4. For that reason, this study draws from the categorical ranking of multifaceted dimensions as proposed by Burger et al. (2017) as illustrated in Table 3.1 below.

Table 3.1: Poverty dimensions for deriving the Fuzzy Set Index

Dimension	Description	Rank	Categories
Dwelling	Type of dwelling	1	Formal house/ flat
		2	Informal dwelling
Energy	Energy source for cooking	1	Electricity or Solar energy
		2	Gas
		3	Paraffin or Coal
		4	Wood or Animal dung
Refuse	Refuse removal	1	Removed by municipality at least once a week
		2	Removed by municipality less often
		3	Communal refuse dump
		4	Own refuse dump
Telephone	Telephone access	1	Landline telephone or mobile phone
		2	No landline telephone nor mobile phone
Water	Type of water access	1	Tap in dwelling
		2	Tap on premises
		3	Public tap or tanker
		4	Rainwater tank, borehole or well
		5	Dam, river or other
Sanitation	Type of sanitation	1	Toilet facility
		2	Pit latrine
		3	Bucket toilet system
		4	Other/ none
Education	Educational attainment of household head	1	Above matric
		2	Matric
		3	Incomplete secondary
		4	Incomplete primary
		5	No schooling
Employment	Labour market status of household head	1	Employed (15-65 years)
		2	Inactive (15-65 years) or below 15 years

Source: Burger et al. (2017).

3.3.3 Descriptive analysis

For the purpose of this research, the quantitative analysis examines the demographic characteristics of social grant recipients and each type of poor. The descriptive areas of focus will be on;

- Person-level characteristics: age, gender, population group, educational attainment, employment status, receipt of social grant status.
- Household-level characteristics: number of children in the household, number of adult males in the household, number of adult females in the households, number of elderly in the household, number of other employed household members.
- Geographical characteristics: area type, province.
- Labour market characteristics: labour market status
- Poverty status: money-metric poverty and non-money-metric poverty, by various characteristics (in particular social grant receipt status).

3.3.4 Poverty decomposition by income source

Amongst the various methodological approaches of quantifying the incidence of poverty and thus, the impact of social grants in deprivation alleviation this study adopts the FGT poverty decomposition by income components using the Shapely Value (dfgts) from Araar and Duclos (2013). By employing the Distributive Analysis Stata Package (DASP) software with the application of the dfgts Stata commands, this allows for the estimation and comparison of welfare (e.g. poverty and inequality) using disaggregated data.

In the particular context of this study, the FGT poverty index is decomposed into the total contribution of distinguished main income sources in order to determine the contribution measurement of each income element on the reduction of poverty. That is, given a number of k income sources with s_k denoting each income source of k , the FGT index is specified as;

$$\hat{p}(z; \alpha; y = \sum_{n=i}^k s_k) = \frac{\sum_{i=1}^n w_i (1-y/z)^\alpha}{\sum_{i=1}^n w_i}$$

Where w_i indicates the assigned weight to the individual i and n is the sample size. Anticipated estimations include the share in total income of each income constituents and the contribution of each income source k to the value of $(p^\alpha - 1)$ or $p^\alpha = 1$ for both absolute and relative terms.

The total income in the LCS data can be decomposed into the following six sources; wages, self-employment, rent, social grants, investments and others (such as the sale of an asset), and the forthcoming DASP investigation will assert the contribution measurement of each income source to money-metric poverty alleviation with a particular focus on the extent of social grants transfers. Consequently, as stated by Araar and Duclos (2013) the negative sign on decomposition term illustrates that an income source diminishes money-metric deprivation.

3.3.5 Econometric analysis

In this section, the probit regression models are run in order to establish the money-metric and non-money-metric poverty rates that define the poor in South Africa. Collett (1991) and Agresti (1990) stated that the primary intent of developing the probit model stemmed from the need to evaluate quantitative dependent variables within the regression framework. In addition, the word “probit” is a combination of the words “probability and unit”. That is, the probit model estimates the probability that a value will fall into one of the two possible binary (i.e. yes/no) outcomes (Scott, 1997).

Be that it may, according to Glick and Hutchison (2013) taking into consideration the correlation among all observed explanatory variables, probit regressions generate predications and allow for testing of statistical significance of individual variables. In other words, probit models can also depict the probability of future crises.

For that reason, the application of a probit regression in this study is to investigate the impact of household- and person-level characteristics on the probability of being classified within the money-metric poverty status and non-money-metric poverty status based on the absolute approach stated in section 3.2.1. Likewise, the regression follows a linear combination of all observed explanatory variables as illustrated below;

$\tilde{y} = \beta_0 + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \dots + \varepsilon$, where \tilde{y} represents the dependent variable (i.e. poverty status), χ_i denotes the various explanatory variables observed and ε as the error term of the model. In addition, the regression is run four times to capture the likelihood mentioned above for the two LCS waves separately, as illustrated by Table 3.2 below.

Table 3.2: Poverty Status Likelihoods

		Non-money-metric poverty status	
		Poor	Non-poor
Money-metric poverty status	Poor	[A]	[B]
	Non-poor	[C]	[D]

Source: Author's own derivation.

Consequently, the analysis will also allow for further investigation on the poverty rate of each poverty status for each wave. For example, the poverty rate for wave one on the two types of poverty can be illustrated as;

- Total population: $[E] = [A] + [B] + [C] + [D]$;
- Money-metric poverty rate = $([A] + [B]) / [E]$; and
- Non-money-metric poverty rate = $([A] + [C]) / [E]$.

3.4 Conclusion

Chapter Three outlined the methodology and data used in this study. Hence, given the multidisciplinary techniques applied in quantifying welfare or lack thereof, this chapter presented the empirical modelling employed for the purpose of this research. Thus, using the LCS data over the periods of 2008/09 and 2014/15 this section discussed four methods for identifying the impact of social grant receipt on both money-metric and non-money-metric poverty likelihoods in RSA. That is, the reputable absolute poverty lines, a relative approach of the Totally Fuzzy Sets tool, descriptive and econometric analysis in order to calibrate the incidence of impoverishment for the target population.

CHAPTER FOUR: EMPIRICAL RESULTS

4.1 Introduction

While the previous chapters discussed various conceptual paradigms in context to the impact of social grants on poverty alleviation in RSA, this chapter aims to expand on the same logic by empirically applying the theoretical concepts and respective methodology. Likewise, Microsoft excel and the STATA software are employed as primary tools to quantify the incidence of poverty as well as its relationship with social welfare assistance (or lack thereof), in order to generate the necessary results.

Based on the LCS 2008/09 and 2014/15 data, this chapter consists of three main sections. First, a discussion on descriptive statistics is given in section 4.2, which examines various demographic characteristics of social grant recipients and each type of poor as well as the results of the poverty decomposition by income source. Following this is section 4.3, where an econometric modelling of the probit regressions will be illustrated in efforts of defining the poor in RSA while simultaneously assessing the impact of social grant receipt. Finally, section 4.4 will provide concluding remarks on the findings presented in this chapter.

4.2 Descriptive Statistics

4.2.1 Descriptive statistics on poverty dimensions using fuzzy sets weightings

Following the argument by Letsoalo (2016), creating poverty profiles helps to dissect the incidence of deprivation. Likewise, the use of vertical and horizontal weights in the comparison of varying trends in poverty across subgroups in society is pivotal in asserting the prevalence of deprivation per dimension. Miceli (1998) advocated for the weighting system proposed by Cerioli and Zani (1990) on the basis that the intensity of deprivation is prone to be less severe when the whole society observed is affected as compared to only a fewer individuals suffering from impoverishment.

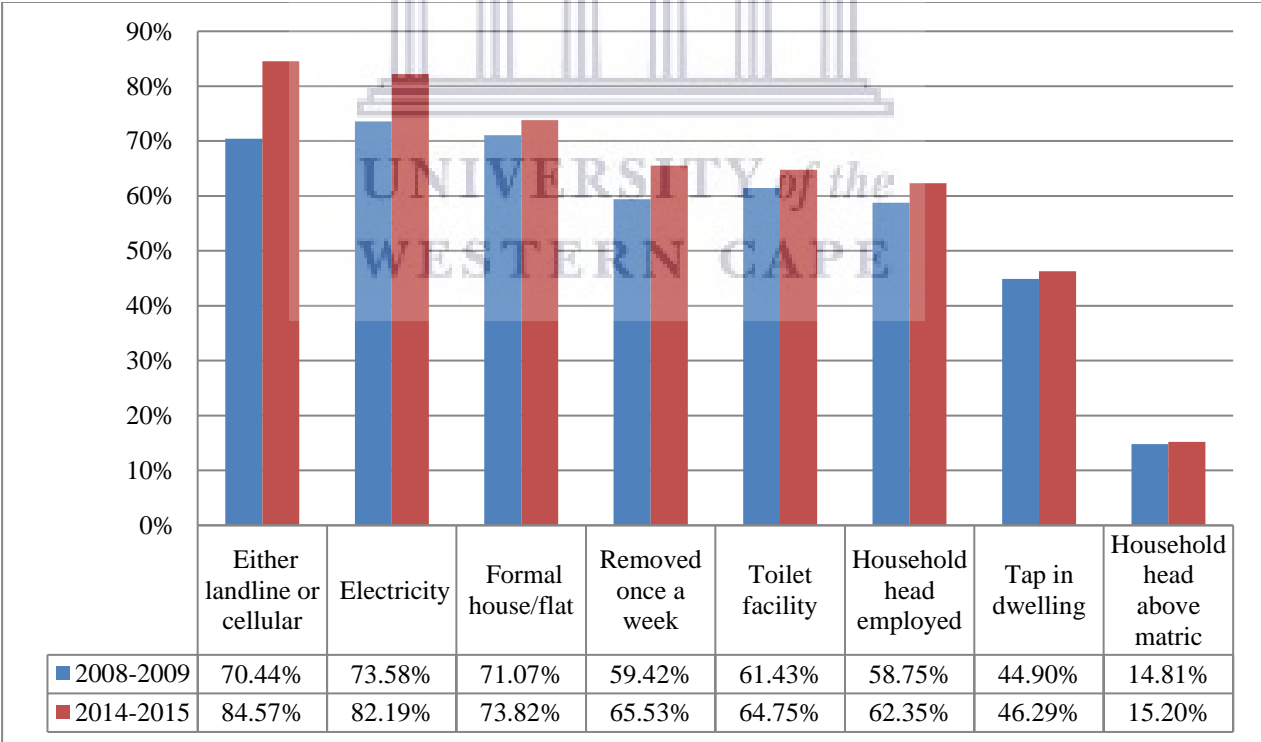
In view of that, the two different weight⁴ settings incorporated in calculating the fuzzy sets index attempt to clarify the vertical and horizontal vagueness attributes of deprivation. That is, the vertical weights illustrate the proportion of households in each dimension category (e.g. comparing the type of dwelling occupied by individuals such as a formal house vs. an informal house, within the dwelling dimension). Taking into account the bounds between zero and 1, vertical weights were assigned across all categories whereby, the best categories take

⁴ Please see Tables A.2 and A.3 in the Appendix.

up a value of zero and as the ranking among these categories increases a greater weight was assigned to them. An example of this is the 73.82 % (i.e. 71.07% in 2008/09 LCS) proportion of households during the 2014/15 LCS who resided in formal housing and was assigned a weight of zero, while those found under informal dwelling attained a weight equivalent to one.

Expanding on the same logic, Figure 4.1 reflects the proportion of households with decent welfare relative to their counterparts. In other words, using the vertical weights the graph below illustrates the proportion of households found in the best categories per dimension. Evidently, between 2008/2009 and 2014/2015 there was a notable increase in the proportion of households with decent welfare across all dimensions. Be that it may, the notable access to formal dwelling, electricity and basic sanitation illustrated a greater “decent welfare” share in these three dimensions, relative to the rest of the selected dimensions. Interestingly, during the second LCS wave, either landline or cellular embraced a substantial absolute increase in the “decent welfare” share by 14.13 percentage points.

Figure 4.1: Percentage of households with decent welfare in each dimension.



Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Conversely, horizontal weights were assigned at each observed dimension such that these dimensions were compared among each other (e.g. education vs. labour market status).

Subsequently, Table A.3's results aligned with a similar past study conducted by Burger et al. (2017) where a series of data was observed from 1996, 2001, 2007 and 2011 of the Census data source. These authors found that four out of the entire dimensions are ultimately determined by the state public service delivery, which are; energy, water, sanitation and refuse removal. In this paper, these four indicators were assigned with greater weighting due to their contributions towards identifying the prevalence of poverty.

4.2.2 Descriptive statistics on social grant recipients profile

Notwithstanding the gradual developments in readdressing the multifaceted dimensions of deprivation as noted in Figure 4.1, the pressing issues of RSA's stagnant economic growth and development speak to the ones who are left behind in destitution. Accordingly, advanced political and socioeconomic discourse on the relationship between income distribution and socioeconomic growth remains a prominent element for policy makers in poverty alleviation initiatives.

Following the World Bank's (2018) discussion on the visibility of RSA's social hierarchy on persist income disparities between the periods 2008 and 2015, for the purpose of this study six sources of income were distinguished and that is; wage income and self-employment income (both sources resulting from labour market activities), rent, social grant transfers, investments and others.

Likewise, the relevance of Figure 4.2 with graphs (a) and (b) illustrate an overview of the money-metric distribution across the observed subgroups of RSA's population during the fiscal courses of 2008/2009 and 2014/2015 of the LCS data. Equally, both graphs depict the contribution of each type of income share as a percentage of total household income. Further, the horizontal axis represents a scale of 100 % while the vertical axis provides the proportion of households ranging from the lowest deciles (i.e. bottom 40% of the populace) with lower income earnings relative to the ascending order reaching the last deciles with higher income earnings.

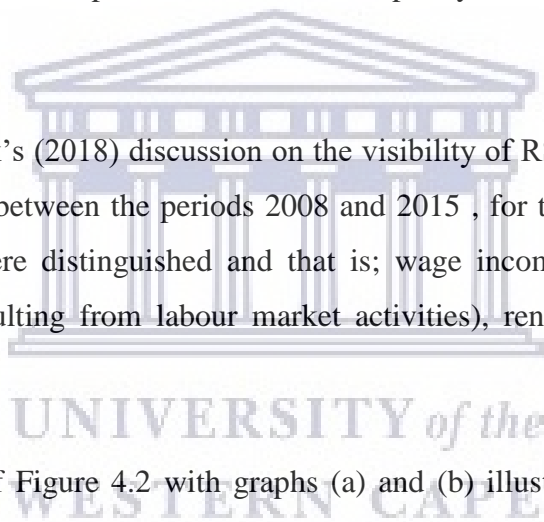
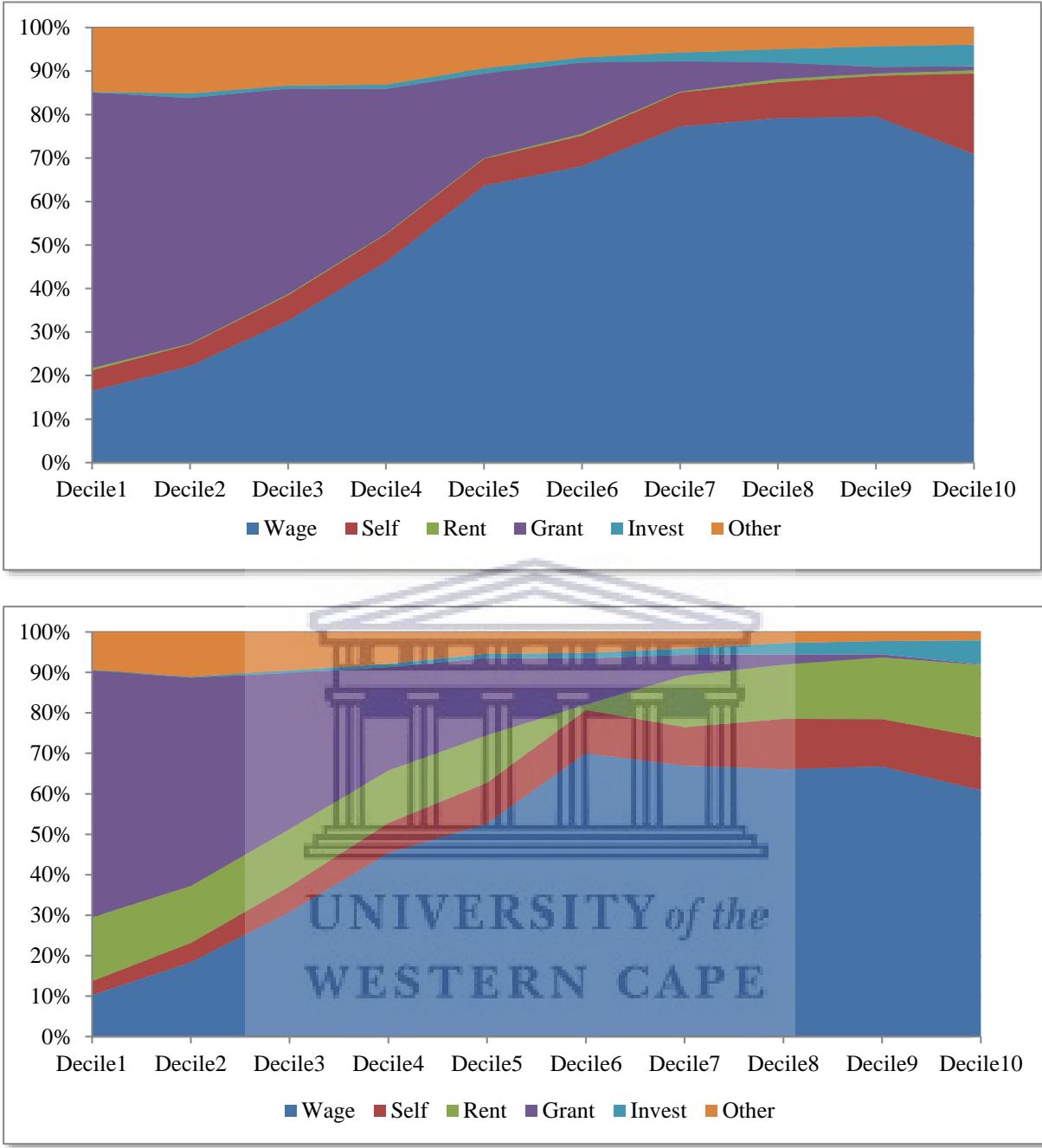


Figure 4.2: Income share of total household income LCS (a) 2008/2009 and (b) 2014/2015



Source: Own calculation using the LCS 2008/2009 and 2014/2015 data.

Evidently similar to the World Bank’s findings, the wage income and self-employment income as percentage of total household income increased across the middle and richer deciles such that, despite the 32.5% official unemployment rate during the fourth quarter in 2020 (Stats SA, 2021) these deciles mostly consist of employed persons. Conversely, given that poorer deciles are often typically associated with lower levels of education (or in some cases, none) and human capital, employment prospects for these households are poor. Hence, the reliance on social grants for lower income quintiles as a percentage of total household

income was more dominant and as such, both figures indirectly alludes on the importance of social grants in efforts to mitigating deprivation issues, despite the underlying fact that it was never the state's intention to use social grants as a tool to alleviate poverty upon the genesis of the social assistance program.

Likewise, as discussed in Chapter Two, over time social grants in RSA have been generally perceived as supplemented income support for the socioeconomically excluded households. As a result, gradual increments towards each social grant type paid monthly have been noted below for the selected years. That is, Table 4.1 shows both nominal and real prices of social grant monthly amounts at the time of the two LCS waves as well as 2018/2019 fiscal course⁵. Expanding on the logic of determining the real purchasing power of each social grant type, undeniably the most dominant in value have remained as the War veterans grant with an average of R 1 546, the OAG, DG and Care dependency grant all with an average of R 1 519. Interestingly, in a country with high fertility rates the CSG averages approximately R 348 from the year 2000 to 2020.

Table 4.1: Maximum monthly social grant amount (Rand)

	2008/2009		2014/2015		2018/2019	
	Nominal	Real	Nominal	Real	Nominal	Real
Old-age grant	1 010	1 503	1 415	1 546	1 780	1 594
Disability grant	1 010	1 503	1 415	1 546	1 780	1 594
Child support grant	240	357	330	361	425	380
Care dependency grant	1 010	1 503	1 415	1 546	1 780	1 594
Foster care grant	680	1 012	860	940	1 000	895
Grant-in-aid	240	357	330	361	N/A	N/A
War veterans grant	1 030	1 533	1 435	1 568	1 800	1 611

Source: National Treasury (various years).

Be that it may, driven by the objective of creating a more comprehensive social security programme, the DSD annual report (2009) highlighted some key research areas that the state had embarked on to foresee this goal. Similarly, in light of the economic distress caused by the global financial meltdown, the RSA's government allocated R624 million towards Social Relief grant, while ensuring the removal of approximately 333 233 counterfeit beneficiaries on the system. Furthermore, the annual report emphasised on the expansion coverage of the social assistance program witnessed through SASSA during the fiscal year 2008/2009.

⁵ Table A.4 and A.5 in the Appendix show the monthly amounts in every year from the year 2000.

Table 4.2 outlines the number of beneficiaries in each social grant type for the selected years. That is, with only a slight deviation of 3% from the targeted number of beneficiaries the DSD (2009) reported an actual output of 13 026 102 which was an improvement from the estimated 2.5 million net coverage in 1994. The robust expansion of the social assistance programme was also noted for 2014/2015 with an actual output of over 16.5 million beneficiaries which was 5.1% higher from the preceding financial period (DSD, 2015). Similarly, during 2018/2019 the overall net coverage was no different in maintaining a steady growth.

Table 4.2: Number of social grant recipients, selected years

	2008/2009	2014/2015	2018/2019
Old-age grant	2 390 543	3 086 851	3 553 317
Disability grant	1 268 883	1 112 663	1 048 255
Child support grant	8 765 354	11 703 165	12 452 072
Care dependency grant	107 065	126 777	150 001
Foster care grant	474 759	499 774	386 019
Grant-in-aid	0	113 087	221 989
War veterans grant	1500	326	92

Source: Department of Social Development Annual reports (2009; 2015; 2019).

Moreover, across all observed selected years persons eligible for the OAG, DG and CSG illustrated an unquestionably consistent uptake when compared to the rest of the social grant types available in RSA. Equally, Table 4.3 provides slightly parallel results such that an expanded coverage was noted for all grant types observed during 2014/2015 with the exception of the grant-in aid and war veterans' grants. Particularly, the differences between figures presented by Tables 4.2 and 4.3 should not cause concern given that Table 4.3 results are derived based on the survey participants' self-reported answers. Notwithstanding the possibility that weights may not be appropriate for disaggregated analysis, in this instance, the presence of subjective bias may occur given the possible likelihood of dishonesty or unintentional misreporting from some respondents on their social grant receipt status.

Table 4.3: Number of social grant recipients, LCS 2008/2009 and 2014/2015

	2008/2009	2014/2015
Old-age grant	2 116 178	2 818 782
Disability grant	887 142	1 173 388
Child support grant	3 898 547	5 688 545
Care dependency grant	65 306	110 945
Foster care grant	196 687	255 295
Grant-in-aid	17 377	14 72
War veterans grant	8 365	0

Source: Own calculations using LCS 2008/2009 and 2014/15 data.

Table 4.4 shows the person-level characteristics of social grant recipients⁶. The results indicate that in both waves of the LCS, the improved uptake in the seven types of grants was noted for mostly female recipients with the CSG as the most prominent (approximately 90% of the CSG recipients were women). These results need to be interpreted with great caution as it is highly likely that the respondents in this case were the children's mothers who answered "yes" on the child support grant receipt. On the other hand, the War veterans grant was mostly male dominated in 2008 with more than half of the grant accounted for by men, focusing on column [8], it can be seen that for those who received at least one of the social grants, more than three quarters of the social grant recipients were Africans, followed by Coloured individuals (about 11%).

Despite the state's efforts of eradicating child poverty through the initiative of early child registration under the CSG program (in particular, 0-1 year age cohort), findings show that for both LCS waves the CSG uptake increased for persons within age cohorts of 15 to 44 years. Likewise, similar to the above discussions' result on cautionary interpretation of these results, the odd increase for the particular age cohort of 24 years and above may be explained by the fact that respondents of the LCS could have been parents (or care-givers) whose children were eligible and received CSG. While the DG, CDG and FG were mostly centralised around the youth as prime recipients, the OAG coverage share remained significant for persons aged 55 and above. Likewise, the noteworthy presence of the Grant-in-aid in 2008/2009 wave alluded supplementary income for recipients of the OAG, DG or War veterans grant. In a nutshell, the most dominant age cohorts (receiving at least one social grant type) were 25-34 years in the case of the CSG⁷ and above 65 years where the OAG was concerned (i.e. correct recipient of grant type) with a share above 20% for these age cohorts in column [8] during both waves of the LCS.

⁶ Since no-one reported that they received the War Veterans Grant during the 2014/2015 LCS for both Tables 4.4 and 4.5, all the figures in the whole column [7] are shown as 'N/A'.

⁷ These are parents or care-givers who incorrectly responded "yes" on the LCS as a CSG recipient on behalf of their children.

Table 4.4: Profile of social grant recipients at person level

	2008/2009								2014/2015							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Gender																
Male	32.45	46.28	7.29	17.29	15.43	45.72	62.85	20.11	35.60	41.35	4.04	9.40	11.83	14.54	N/A	18.13
Female	67.55	53.72	92.71	82.71	84.57	54.28	37.15	79.89	64.40	58.65	95.96	90.60	88.17	85.46	N/A	81.87
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
Race																
African	78.13	79.15	94.32	82.58	92.82	88.03	40.99	87.15	77.75	82.69	92.22	85.39	92.85	69.33	N/A	86.41
Coloured	8.18	15.27	5.18	11.71	5.54	8.75	22.13	7.84	10.03	11.53	6.91	11.20	6.22	16.91	N/A	8.55
Indian	3.77	2.70	0.27	2.97	0.15	3.22	7.24	1.69	3.84	2.61	0.48	0.95	0.21	0.00	N/A	1.79
White	9.93	2.87	0.24	2.74	1.50	0.00	29.64	3.67	8.38	3.17	0.39	2.46	0.73	13.75	N/A	3.24
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
Age																
0-14 years	1.21	2.92	6.97	10.99	7.83	15.08	2.88	5.10	0.00	0.00	0.00	0.00	0.45	0.00	N/A	0.01
15-24 years	0.66	6.46	16.17	8.92	10.72	25.68	0.00	10.79	0.00	7.23	15.99	4.99	6.75	7.00	N/A	10.79
25-34 years	0.67	16.62	36.62	26.65	11.31	8.62	4.93	23.73	0.00	19.55	36.40	23.46	11.35	9.96	N/A	24.39
35-44 years	0.82	22.47	21.98	18.52	11.63	11.96	12.01	15.69	0.00	25.96	25.23	31.34	13.67	10.89	N/A	18.10
45-54 years	2.25	27.42	11.33	11.96	19.75	15.00	11.36	10.47	0.00	28.14	13.19	13.85	20.67	6.61	N/A	10.96
55-64 years	26.53	21.63	4.46	13.66	21.94	20.51	20.91	12.62	31.34	18.50	5.72	16.70	23.56	18.68	N/A	14.00
65+ years	67.86	2.49	2.47	9.30	16.82	3.15	47.91	21.60	68.66	0.62	3.47	9.66	23.56	4.87	N/A	21.74
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
Province																
Western Cape	6.98	12.51	0.29	11.99	6.69	8.91	17.06	7.46	9.69	11.85	8.22	16.19	6.65	17.57	N/A	9.27
Eastern Cape	17.60	17.95	15.29	12.42	19.5	25.57	19.61	15.89	14.61	14.42	14.86	10.20	23.51	16.14	N/A	14.38
Northern Cape	2.88	4.44	2.24	1.77	3.62	2.31	1.43	2.63	2.84	3.57	2.24	2.61	2.68	3.12	N/A	2.49
Free State	7.25	6.69	6.34	8.80	11.01	1.05	3.63	6.65	5.52	7.40	5.53	3.86	8.27	3.75	N/A	5.74
KwaZulu-Natal	23.20	24.24	22.55	25.04	19.11	11.40	19.10	22.71	20.16	26.54	23.43	26.26	22.56	30.24	N/A	22.50
North West	7.57	9.24	7.29	5.69	8.38	7.99	0.00	7.58	7.50	7.57	7.33	10.35	8.90	0.75	N/A	7.41
Gauteng	15.05	10.25	16.32	15.76	17.30	26.85	18.48	15.73	20.97	12.69	17.12	11.35	11.73	13.75	N/A	18.09
Mpumalanga	6.71	5.62	8.44	8.78	4.23	4.53	0.00	7.67	7.02	6.79	8.35	4.47	5.69	6.24	N/A	7.79
Limpopo	12.76	9.06	15.23	9.75	9.82	11.38	20.68	13.69	11.69	9.17	12.92	14.71	10.02	8.44	N/A	12.33
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00

Table 4.4: Continued

	2008/2009								2014/2015							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
<u>Area type</u>																
Urban	50.87	55.83	50.82	54.06	57.26	40.46	86.47	52.28	55.78	55.61	52.20	55.71	48.60	55.99	N/A	5
Rural	49.13	44.17	49.18	45.94	42.74	59.54	13.53	47.72	44.22	44.39	47.80	44.29	51.40	44.01	N/A	4
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100
<u>Education</u>																
Primary	27.30	30.42	18.86	22.89	28.50	22.68	26.62	22.31	28.46	22.97	11.87	23.14	25.13	31.52	N/A	1
Secondary	26.89	38.47	53.69	48.00	42.85	55.17	49.44	44.47	33.54	46.87	56.71	49.74	47.26	29.64	N/A	4
Matric	3.81	4.93	12.89	7.06	4.18	7.54	14.96	9.46	6.10	10.40	21.91	13.65	10.11	11.91	N/A	1
Matric + Cert ./ Dip.	2.95	1.34	2.98	2.78	2.13	0.00	6.10	2.88	1.76	1.39	3.29	3.10	1.54	2.93	N/A	2
Degree	1.13	0.15	0.29	1.03	1.04	0.00	0.00	0.57	0.36	0.20	0.39	1.31	0.58	0.00	N/A	0
Other/Unspecified	37.91	24.68	11.30	18.25	21.29	14.61	2.88	20.31	29.78	18.18	5.82	9.06	15.38	24.01	N/A	1
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100
<u>Employment status</u>																
Unemployed/Inactive	92.98	88.35	71.64	77.42	70.50	86.75	87.28	79.52	91.26	84.27	66.81	75.17	75.45	98.04	N/A	7
Employed	7.02	11.65	28.36	22.58	29.50	13.25	12.72	20.48	8.74	15.73	33.19	24.83	24.55	1.96	N/A	2
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100

[1]: Old-age grant

[2]: Disability grant

[3]: Child support grant

[4]: Care dependency grant

[5]: Foster care grants

[6]: Grant-in-aid

[7]: War veterans grant

[8]: Received at least one type of social grant

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Further, following results from a study conducted by StatsSA (2014) which found that relatively large populations in RSA were associated with the KwaZulu-Natal, Eastern Cape and Gauteng provinces between 1996 and 2011, findings indicate that each of these three regions accounted for a greater share of the social grant receipt compared to other provinces between both waves of the LCS. That is, during the first LCS wave KwaZulu-Natal represented approximately 20% of social grant recipients in six grant types with the exception of the Grant-in-aid (about 11%).

Likewise, with most grant recipients fluctuating around 20% in six grant types, the uptake exception for the Eastern Cape was noted for the CDG (12.42%) and for Gauteng on the DG (10.25%). Interestingly, by the end of 2015 these grant type exceptions had improved for all three regions while attaining a larger coverage share relative to the rest of the grant types such that, KwaZulu-Natal's uptake on the Grant-in-aid had improved to 30.24%, following this was Eastern Cape with CDG (23.51%) and Gauteng on DG (20.97%), respectively.

In addition, given RSA's history on homeland/spatial areas, results show that more than half of social grant recipients were found in urban areas during both waves of the LCS. However, the exception of the CDG (40.46%) in 2008/2009 and the FG (49.60%) in 2014/2015 further emphasised on the family dynamics of these individuals such that, children from these respective households are typically left in the care of the grandparents in rural areas as their parents migrate to urban areas in hopes for better employment prospects and welfare. Concurrently, the empirical findings illustrate that there is little evidence at person level to support the general conceptualisation that majority of grant recipients are rural residents who are deemed desperate to get social grants.

Undeniably, people from lower educational attainment groups (i.e. primary, secondary or at times, none) represent a greater proportion of social grant recipients (about 90%). Consequently, as noted by StatsSA (2014) the rate of unemployment increased since 2008 with approximately 52% reported as female and 49% by end of quarter two 2013 as unemployed men. By the same token, results in this study demonstrate that on average about 80% (about 71% in 2014) of the observed population were unemployed / inactive social grant recipients during 2008/2009. In other words, the association of low educational attainment often results to moderate labour market prospects and in worst cases, economic inactiveness or unemployment. As a result, this leads to increased financial strain and high dependency on social grants that justify the large share of social grant receipt in this context.

Table 4.5: Profile of social grant recipients at household level

	2008/2009								2014/2015							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
<u>Gender of head</u>																
Male	43.62	50.77	43.64	39.06	36.49	55.04	57.92	44.84	42.90	46.68	42.05	42.25	33.63	31.99	N/A	43.83
Female	56.38	49.23	56.36	60.94	63.51	44.96	42.08	55.16	57.10	53.32	57.95	57.75	66.35	68.01	N/A	56.17
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
<u>Race of head</u>																
African	79.26	80.86	94.06	83.60	92.64	84.43	40.99	86.73	79.83	83.73	91.89	86.13	92.29	63.97	N/A	86.70
Coloured	8.08	13.90	5.26	11.63	5.15	11.38	22.13	7.49	9.47	10.46	7.36	11.56	6.84	13.95	N/A	8.40
Indian	3.44	2.47	0.31	3.33	0.17	4.19	7.24	1.73	3.09	2.44	0.36	0.60	0.17	2.78	N/A	1.56
White	9.22	2.76	0.37	1.44	2.03	0.00	29.64	4.04	7.61	3.36	0.38	1.71	0.70	19.30	N/A	3.34
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
<u>Age of head</u>																
0-14 years	0.27	0.11	0.10	0.00	0.00	0.00	2.88	0.13	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00
15-24 years	0.60	0.73	3.17	5.93	3.40	5.94	0.00	2.50	0.09	1.47	3.24	0.00	4.19	0.00	N/A	2.61
25-34 years	1.74	6.91	20.51	17.27	9.42	5.38	0.00	15.37	0.87	8.08	20.50	14.18	11.78	4.41	N/A	15.73
35-44 years	3.82	17.89	25.50	19.77	11.47	26.94	31.62	20.26	2.81	17.19	25.55	24.26	12.15	7.46	N/A	20.19
45-54 years	5.96	30.04	21.39	16.95	27.71	23.11	11.36	19.03	4.05	28.66	23.09	21.08	24.07	2.24	N/A	19.66
55-64 years	24.62	27.52	15.66	25.47	28.51	29.45	20.91	18.34	29.19	26.16	15.50	20.71	19.97	37.28	N/A	18.52
65+ years	62.99	16.80	13.65	14.61	25.50	9.17	33.23	24.38	62.99	18.44	12.12	19.77	27.84	48.61	N/A	23.30
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
<u>Province</u>																
Western Cape	6.91	11.89	6.79	9.15	6.01	11.60	17.06	7.83	9.67	10.93	8.42	14.37	7.26	18.26	N/A	9.42
Eastern Cape	18.36	18.83	16.01	13.95	21.60	11.62	19.61	16.19	14.33	13.04	12.53	10.39	17.85	9.65	N/A	12.71
Northern Cape	2.85	4.21	2.38	1.98	4.07	3.00	1.43	2.57	2.70	3.64	2.31	2.42	2.77	2.24	N/A	2.37
Free State	7.28	7.13	7.10	8.48	11.73	1.37	3.63	7.13	6.03	7.55	6.43	4.54	9.64	4.92	N/A	6.40
KwaZulu-Natal	22.50	23.97	21.13	26.01	18.78	14.84	19.10	21.10	20.10	25.83	19.42	23.63	20.75	32.40	N/A	19.38
North West	7.31	9.08	7.64	6.02	9.13	10.40	0.00	7.67	7.89	8.10	7.92	11.60	10.00	2.11	N/A	7.78
Gauteng	14.94	9.93	16.05	17.20	14.98	28.96	18.48	16.62	20.40	15.68	22.43	15.58	15.35	19.30	N/A	22.53
Mpumalanga	7.03	5.98	8.28	6.92	4.29	5.90	0.00	7.71	6.69	6.51	8.39	4.53	5.67	3.76	N/A	7.81
Limpopo	12.81	8.99	14.63	10.30	9.40	12.32	20.68	13.18	12.18	8.73	12.15	12.95	10.70	7.37	N/A	11.59
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
<u>Area type</u>																
Urban	50.70	55.22	51.30	53.52	55.82	46.67	86.47	54.26	55.09	57.30	56.80	57.49	51.57	62.68	N/A	57.60
Rural	49.30	44.78	48.70	46.48	44.18	53.33	13.53	45.74	44.91	42.70	43.20	42.51	48.43	37.32	N/A	42.40
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00

Table 4.5: Continued

	2008/2009								2014/2015							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
<u>Education of head</u>																
Primary	26.93	30.30	24.81	26.13	25.62	26.21	26.62	24.71	27.38	26.19	18.91	26.77	22.06	38.97	N/A	20.29
Secondary	27.42	38.46	45.12	42.98	41.49	57.46	49.44	41.85	33.76	45.45	49.94	46.71	45.68	36.20	N/A	47.02
Matric	4.76	4.53	8.23	4.35	4.84	5.56	10.03	7.88	6.97	8.66	15.32	0.56	9.93	11.32	N/A	13.95
Matric + Cert./ Dip.	3.48	2.17	2.64	3.96	2.54	0.00	6.10	3.34	3.04	2.32	2.84	2.45	2.06	1.84	N/A	3.29
Degree	2.05	0.49	0.51	3.73	1.34	0.00	0.00	1.19	1.01	0.54	0.70	0.82	1.23	0.00	N/A	0.92
Other/Unspecified	35.36	24.05	18.70	18.85	24.17	10.47	7.81	21.02	27.83	16.85	12.29	14.69	19.03	11.67	N/A	14.53
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
<u>Employment status of head</u>																
Unemployed/Inactive	84.86	75.07	55.03	60.51	62.75	59.02	67.67	62.39	83.80	71.05	49.73	66.86	70.24	81.99	N/A	57.60
Employed	15.14	24.93	44.97	39.49	37.25	40.98	32.33	37.61	16.20	28.95	50.27	33.14	29.76	18.01	N/A	42.40
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
<u>Household size</u>																
One person	8.48	7.30	1.48	3.32	0.68	14.71	13.34	5.37	11.38	7.70	2.64	1.08	2.21	19.30	N/A	7.17
Two persons	13.81	11.41	5.37	5.68	3.42	11.46	10.03	10.17	16.46	11.17	6.95	3.30	7.04	6.09	N/A	11.84
Three persons	12.41	11.97	13.62	9.61	9.54	8.72	8.98	14.57	14.80	13.49	15.59	8.23	9.23	12.04	N/A	16.70
Four to five persons	26.56	27.94	34.49	31.24	29.58	40.28	18.51	32.43	26.00	29.50	37.43	36.95	26.74	24.51	N/A	33.55
More than five persons	38.73	41.38	45.04	50.15	56.77	24.82	49.15	37.46	31.34	38.15	37.42	50.45	54.77	38.06	N/A	30.73
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	N/A	100.00
<i>Mean (number)</i>	5.11	5.36	5.69	5.98	6.41	4.50	5.16	5.11	4.58	5.06	5.19	6.07	6.22	4.68	N/A	4.66
<u>Other statistics (mean)</u>																
Number of children	1.51	1.77	2.45	2.45	2.57	1.26	1.32	1.95	1.32	1.68	2.13	2.49	2.50	1.41	N/A	1.71
Number of male 15-59 years	0.91	1.01	0.82	1.08	1.26	0.91	1.01	0.83	0.91	0.98	0.75	1.04	1.17	1.09	N/A	0.75
Number of female 15-59 years	1.19	1.38	1.35	1.34	1.44	1.19	1.03	1.19	1.01	1.28	1.25	1.44	1.43	0.92	N/A	1.07
Number of elderly	1.16	0.38	0.28	0.35	0.53	0.31	1.12	0.48	1.22	0.39	0.26	0.37	0.41	0.88	N/A	0.46
Number of grant recipients	1.72	1.84	1.53	1.73	1.61	2.01	1.01	1.44	1.72	1.83	1.45	1.71	1.67	1.76	N/A	1.40

[1]: Old-age grant

[2]: Disability grant

[3]: Child support grant

[4]: Care dependency grant

[5]: Foster care grants

[6]: Grant-in-aid

[7]: War veterans grant

[8]: Received at least one type of social grant

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Similarly, the household-level results presented in Table 4.5 resemble parallel findings illustrated at person level with a few exceptions on some household characteristics that are shown in the last few rows of Table 4.5. These exceptions include the household size whereby results show that in households with the number of people ranging from four and more than five, more than half of these households were social grant recipients with a dominating effect in all grant types observed. Interestingly, given a relatively higher household average size between five and six in household recipients of the CSG, CDG and FCG, for households that received CSG, the average number of children was relatively higher (about 2.5) while the mean number of male adults was lower (0.8) than the average number of female adults (about 1.40). The empirical evidence in this context implied strong probability that most of the CSG recipients come from households with single mothers as the family heads (i.e. absent or low number of male adults in present) and that there are at least two children in the households.

To conclude, findings from Tables 4.4 and 4.5 suggest that in general, the social grant recipients are most likely to possess the following characteristics: female, African, aged 25-34 years or above 65 years, with low educational attainment (mostly primary and secondary), coming from the Eastern Cape, KwaZulu-Natal and Gauteng provinces and were most likely unemployed or inactive in the labour market.

Above and beyond, the use of the FGT indices allow for the analysis of the money-metric poverty. In particular, using the headcount ratio one is able to determine the proportion of the population whose welfare standards are below the national poverty line. Likewise, Table 4.6 demonstrates the money-metric poverty headcount ratios of households with and without social grants. Examining the results using per capita income that include all income sources (i.e. with social grants), the empirical findings illustrate the significant movement of poverty headcount ratio for the whole population from 31.81% in 2008/2009 to 23.45% in 2014/2015. Conversely, when analysing the results by using the income variable that excludes social grant income, poverty headcount ratio remained relatively higher as expected from 40.66% to 33.02% by end of 2015. Alternatively, these results indicate that social grant income contributed in reducing the poverty headcount ration by about 10 percentage points between both LCS waves.

Table 4.6: Money-metric poverty headcount ratios, with and without social grants

	2008/2009		2014/2015		Difference	
	With grants	Without grants	With grants	Without grants	With grants	Without grants
<u>All</u>						
All	0.3181	0.4066	0.2345	0.3302	-0.0836	-0.0764
<u>Gender of head</u>						
Male	0.2438	0.3118	0.1752	0.2451	-0.0686	-0.0667
Female	0.4325	0.5496	0.3198	0.4495	-0.1127	-0.1001
<u>Race of head</u>						
African	0.3821	0.4780	0.2791	0.3837	-0.1030	-0.0943
Coloured	0.1686	0.2677	0.1201	0.2215	-0.0485	-0.0462
Indian	0.0776	0.1565	0.0234	0.0715	-0.0542	-0.0850
White	0.0728	0.1087	0.0124	0.0390	-0.0604	-0.0697
<u>Age of head</u>						
0-14 years	0.6158	0.7592	0.7892	0.7892	0.1734	0.0300
15-24 years	0.3963	0.4187	0.3835	0.4156	-0.0128	-0.0031
25-34 years	0.2673	0.3044	0.2330	0.2621	-0.0343	-0.0423
35-44 years	0.2919	0.3418	0.2177	0.2672	-0.0742	-0.0746
45-54 years	0.3255	0.3786	0.2372	0.2965	-0.0883	-0.0821
55-64 years	0.3501	0.4678	0.2259	0.3748	-0.1242	-0.0930
65+ years	0.3693	0.6526	0.2013	0.5142	-0.1680	-0.1384
<u>Province</u>						
Western Cape	0.1455	0.2042	0.1080	0.1674	-0.0375	-0.0368
Eastern Cape	0.4094	0.5342	0.3638	0.5053	-0.0456	-0.0289
Northern Cape	0.3822	0.5294	0.2668	0.4121	-0.1154	-0.1173
Free State	0.3476	0.4672	0.2397	0.3836	-0.1079	-0.0836
KwaZulu-Natal	0.3795	0.4685	0.2798	0.3940	-0.0997	-0.0745
North West	0.3301	0.4332	0.2872	0.4106	-0.0429	-0.0226
Gauteng	0.2033	0.2561	0.1411	0.1911	-0.0622	-0.0650
Mpumalanga	0.3728	0.4638	0.2691	0.3566	-0.1037	-0.1072
Limpopo	0.5054	0.6152	0.3773	0.5131	-0.1281	-0.1021
<u>Area type</u>						
Urban	0.2198	0.2874	0.1607	0.2291	-0.0591	-0.0583
Rural	0.5282	0.6582	0.4095	0.5677	-0.1187	-0.0905
<u>Education of head</u>						
Primary	0.4864	0.6307	0.3615	0.5687	-0.1249	-0.0620
Secondary	0.3305	0.4078	0.2789	0.3704	-0.0516	-0.0374
Matric	0.1516	0.1787	0.1301	0.1595	-0.0215	-0.0192
Matric + Cert ./ Dip.	0.0971	0.1206	0.0518	0.0647	-0.0453	-0.0559
Degree	0.0526	0.0627	0.0203	0.0226	-0.0323	-0.0401
<u>Employment status of head</u>						
Unemployed/ Inactive	0.5015	0.6630	0.4161	0.6117	-0.0854	-0.0513
Employed	0.1908	0.2265	0.1256	0.1602	-0.0652	-0.0663

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Synchronously, the two key general findings on the entire population are applicable to the results by other personal characteristics. That is, with social grants the proportion of matriarchal households associated with impoverishment remained more serious irrespective

of their poverty headcount ratio declining to 32% relative to about 18% money-metric poverty headcount likelihood in the case of male headed households. In spite of a borderline improvement in welfare, empirical evidence shows that African remained the ethnicity group with the highest poverty headcount ratio from 38.21% to approximately 28% in 2014/2015.

While more than three quarters of children within the age cohorts 0-14 years endured higher money-metric poverty headcount by the end of the second LCS wave, middle-aged cohorts were associated with relatively the lowest money-metric poverty headcount ratio. Although, the combined group of 25-44 years are classified as the most active group working in the labour market often these households are often characterised as breadwinners with relatively large household sizes and low income earnings.

Furthermore, provinces infamously defined as inferior or disadvantaged such as the Eastern Cape, Northern Cape, North West and Limpopo remained the poorest provinces in RSA with approximately 40% to 50% of the respective residents living below the national money-metric poverty threshold compared to more affluent regions like the Gauteng and Western Cape with less than 20% money-metric poverty headcount ratio. Evidently, for both waves of the LCS more than half of the population in rural areas remained highly associated with poverty headcount ratio regardless of the inclusion of social grant income in some households, compared to about 20% money-metric poverty headcount ratio found in urban areas. Undeniably, in the context of educational attainment money-metric poverty headcount ratio decreased as individuals moved across to the more educated categories. Likewise, as expected results show that for the employed proportion of the population money-metric poverty headcount ratio was much lower.

Additionally, the estimated results on the difference in money-metric poverty headcount ratio between the two LCS waves (i.e. 2014/2015 poverty headcount rate minus 2008/2009 poverty headcount rates) specifically focusing on the proportion of households with social grants results, illustrate significant declines in money-metric poverty headcount ratios across all characteristics (i.e. last two columns of the table). However, more evident percentage point decreases are noted for people with the following characteristic; female-heads (0.0686), African (0.1030), combined age cohorts of 55+ years (0.2922), coming from Limpopo (0.01281), rural area type (0.1187), lower educational attainment (0.1765 of both primary and secondary levels) and often associated with unemployment or inactiveness in the labour market (0.0854).

Similarly, the use of the money-metric poverty gap and squared poverty gap headcount ratios⁸ further demonstrate the incidence and severity of money-metric poverty for both recipients and non-recipients of social grants. That is, the empirical findings show that when social grants were received the incidence of money-metric poverty reduced to 10.41% (6.21% poverty severity) for the entire population in 2014/2015. Whereas, when analysing results with the exclusion of social grant transfers from all income sources, it was apparent that the money-metric poverty gap and squared poverty gap for the whole population remained relatively higher during both waves of the LCS. In a nutshell, for results by similar personal characteristics as noted in Table 4.4, the general findings are more or less the same as what was discussed under the money-metric poverty headcount ratio in Table 4.6.

Moreover, Table 4.7 presents the money-metric poverty headcount ratios by social grant receipt status. That is, using the headcount ratios the results assert the proportion of households living below the monetary poverty threshold in the two cases of a) at least one household member received social grant and b) none of the household members received social grant. Findings indicate that poverty headcount ratio dropped between the two LCS's in both groups. However, as expected, the first group (i.e. at least one member receiving social grants) still encountered greater poverty likelihood with the money-metric poverty headcount ratio from 47.45% to 34.53% in 2014. While on the other hand, the second group's welfare (i.e. all members without social grants) improved from 19.28% to 13.86% money-metric poverty headcount ratio.

Expanding on the same logic, typically households with all members as non-recipients of social grant are normally characterised with relatively higher levels of educational attainment, better employment opportunities and reside in affluent area types. Whereas, in the instance of households with at least one social grant recipient, deprivation incidence in rural areas remained relatively high in 2014/2015 with about 48.02% (61.66% in 2008/2009) of the households proportion found below the national poverty line. Likewise, greater proportions of these households predominantly resided in the Eastern Cape, KwaZulu-Natal and Limpopo were highly associated with impoverishment (about 40% in all three regions); while Gauteng and the Western Cape remained relatively well off with approximately 20% for both regions.

⁸ The results are presented in Tables A.6 and A.7 in the appendix.

Table 4.7: Money-metric poverty headcount ratios, by social grant receipt status

	2008/2009		2014/2015		Difference	
	At least one member receiving grants	All members did not receive grants	At least one member receiving grants	All members did not receive grants	At least one member receiving grants	All members did not receive grants
<u>All</u>						
All	0.4745	0.1928	0.3453	0.1386	-0.1292	-0.0542
<u>Gender of head</u>						
Male	0.3952	0.1679	0.2592	0.1302	-0.1360	-0.0377
Female	0.5381	0.2589	0.4125	0.1597	-0.1256	-0.0992
<u>Race of head</u>						
African	0.5227	0.2400	0.3804	0.1767	-0.1423	-0.0633
Coloured	0.2350	0.1228	0.1733	0.0591	-0.0617	-0.0637
Indian	0.0977	0.0687	0.0276	0.0214	-0.0701	-0.0473
White	0.0464	0.0772	0.0151	0.0119	-0.0313	-0.0653
<u>Age of head</u>						
0-14 years	0.5461	0.6773	0.0000	0.7892	-0.5461	0.1119
15-24 years	0.5892	0.3469	0.5071	0.3540	-0.0821	0.0071
25-34 years	0.4858	0.1657	0.4099	0.1476	-0.0759	-0.0181
35-44 years	0.4901	0.1662	0.3794	0.1012	-0.1107	-0.0650
45-54 years	0.5120	0.1961	0.3936	0.1139	-0.1184	-0.0822
55-64 years	0.4611	0.2212	0.3159	0.0973	-0.1452	-0.1239
65+ years	0.4226	0.1254	0.2367	0.0374	-0.1859	-0.0880
<u>Province</u>						
Western Cape	0.2338	0.1058	0.1669	0.0712	-0.0669	-0.0346
Eastern Cape	0.5275	0.2552	0.4472	0.2566	-0.0803	0.0014
Northern Cape	0.4748	0.2762	0.3642	0.1579	-0.1106	-0.1183
Free State	0.4819	0.2215	0.3103	0.1602	-0.1716	-0.0613
KwaZulu-Natal	0.5438	0.2021	0.4014	0.1416	-0.1424	-0.0605
North West	0.4775	0.2057	0.3902	0.1879	-0.0873	-0.0178
Gauteng	0.3258	0.1511	0.2185	0.0975	-0.1073	-0.0536
Mpumalanga	0.4958	0.2501	0.3933	0.1452	-0.1025	-0.1049
Limpopo	0.6109	0.3390	0.4843	0.2340	-0.1266	-0.1050
<u>Area type</u>						
Urban	0.3548	0.1446	0.2491	0.1045	-0.1057	-0.0401
Rural	0.6166	0.3732	0.4802	0.1781	-0.1364	-0.1951
<u>Education of head</u>						
Primary	0.5547	0.3601	0.3932	0.2866	-0.1615	-0.0735
Secondary	0.4430	0.2355	0.3477	0.2043	-0.0953	-0.0312
Matric	0.2986	0.1041	0.2245	0.0889	-0.0741	-0.0152
Matric + Cert ./ Dip.	0.1609	0.0836	0.1279	0.0366	-0.0330	-0.0470
Degree	0.0656	0.0514	0.0141	0.0207	-0.0515	-0.0307
<u>Employment status of head</u>						
Unemployed/Inactive	0.5574	0.3843	0.4395	0.3571	-0.1179	-0.0272
Employed	0.3371	0.1320	0.2174	0.0821	-0.1197	-0.0499

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Similar to Table 4.6 findings, the estimated difference between the two LCS waves in Table 4.7 (i.e. last two columns of the table) illustrates that for households with at least one grant-recipient member an absolute decline in money-metric poverty was noted with 12.92 percentage points on the overall population. Surprisingly, while still focusing on households found in group (a), given that female-headed households were more prone to impoverishment between the two LCS's results indicate a relatively higher decline in money-metric poverty headcount for male-headed families with 13.36 percentage point's difference between both LCS waves. Additionally, these households were characterised as African, within age cohorts of 0-14 and combined group of 35-65+ years, associated with rural area types of regions such as the Northern Cape, Free State and Limpopo. Although the significant declines in the lower educational attainment was also noted for these households, only marginal money-metric poverty headcount decreases were evident between the unemployed and employed persons with at least one member receiving grants.

On the other hand, Table 4.8 shows the non-money-metric poverty headcount by social grant receipt status using the two cases employed in Table 4.7. Empirical findings undeniably illustrate the acute nature of non-money-metric poverty headcount relative to the money-metric poverty headcount. To this extent, in contrast to the welfare improvement of the whole population noted in Table 4.7, results of Table 4.8 demonstrate that while households with at least one member receiving social grants moved closer to the non-money-metric national poverty line with their state of deprivation reducing by about 15 percentage points, for households where all members did not receive grants, the non-money-metric poverty headcount increased by approximately six percentage points by the end of the second LCS wave.

By the same token, although female-headed families were predominantly impoverished in both groups during the 2008/2009 LCS, at the end of the second LCS the non-money-metric poverty headcount in these households increased by 10 percentage points, whereas male-headed households became marginally poorer when all household members were non-recipients of social grants. Similar to findings presented in Table 4.7, while notable declines of non-money-metric poverty headcount ratio are illustrated across all ethnic groups, the African community remained chiefly deprived with almost two quarters of households with at least one grant recipient while 22.79% of households without any grant recipients endured non-money-metric poverty headcount.

Table 4.8: Non-money-metric poverty headcount ratios, by social grant receipt status

	2008/2009		2014/2015		Difference	
	At least one member receiving grants	All members did not receive grants	At least one member receiving grants	All members did not receive grants	At least one member receiving grants	All members did not receive grants
<u>All</u>						
All	0.4994	0.2276	0.3981	0.1731	-0.1013	-0.0545
<u>Gender of head</u>						
Male	0.4453	0.2136	0.3498	0.1779	-0.0955	-0.0357
Female	0.5434	0.2649	0.4358	0.1610	-0.1076	-0.1039
<u>Race of head</u>						
African	0.5662	0.3246	0.4533	0.2279	-0.1129	-0.0967
Coloured	0.1003	0.0449	0.0590	0.0166	-0.0413	-0.0283
Indian	0.0209	0.0019	0.0059	0.0092	-0.0150	0.0073
White	0.0107	0.0029	0.0016	0.0068	-0.0091	0.0039
<u>Age of head</u>						
0-14 years	0.7645	0.6160	0.0000	1.0000	-0.7645	0.3840
15-24 years	0.5632	0.4674	0.5045	0.3575	-0.0587	-0.1099
25-34 years	0.4933	0.2430	0.3846	0.1769	-0.1087	-0.0661
35-44 years	0.4438	0.1887	0.3556	0.1469	-0.0882	-0.0418
45-54 years	0.4635	0.1962	0.3629	0.1503	-0.1006	-0.0459
55-64 years	0.4995	0.2299	0.4063	0.1502	-0.0932	-0.0797
65+ years	0.5695	0.0721	0.4554	0.0515	-0.1141	-0.0206
<u>Province</u>						
Western Cape	0.1299	0.0501	0.0584	0.0383	-0.0715	-0.0118
Eastern Cape	0.6991	0.3699	0.6537	0.3927	-0.0454	0.0228
Northern Cape	0.3330	0.2014	0.3101	0.1680	-0.0229	-0.0334
Free State	0.2540	0.1928	0.1882	0.1118	-0.0658	-0.0810
KwaZulu-Natal	0.5852	0.2599	0.5243	0.2106	-0.0609	-0.0493
North West	0.5359	0.3280	0.4108	0.2589	-0.1251	-0.0691
Gauteng	0.1798	0.1301	0.1085	0.0850	-0.0713	-0.0451
Mpumalanga	0.5991	0.3791	0.5324	0.2581	-0.0667	-0.1210
Limpopo	0.8251	0.5555	0.7808	0.3755	-0.0443	-0.1800
<u>Area type</u>						
Urban	0.1888	0.1100	0.1203	0.0808	-0.0685	-0.0292
Rural	0.8679	0.6669	0.7878	0.5529	-0.0801	-0.1140
<u>Education of head</u>						
Primary	0.6014	0.4906	0.5393	0.4394	-0.0621	-0.0512
Secondary	0.3986	0.2851	0.3346	0.2602	-0.0640	-0.0249
Matric	0.2505	0.0906	0.1887	0.0769	-0.0618	-0.0137
Matric + Cert ./ Dip.	0.1532	0.0568	0.1310	0.0418	-0.0222	-0.0150
Degree	0.0443	0.0193	0.0494	0.0188	0.0051	-0.0005
<u>Employment status of head</u>						
Unemployed/Inactive	0.5974	0.3985	0.5078	0.3353	-0.0896	-0.0632
Employed	0.3368	0.1734	0.2491	0.1320	-0.0877	-0.0414

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Notwithstanding the extreme non-money-metric child poverty headcount of more than half, the youth and elderly cohorts remained relatively poor in households with at least one member receiving grants compared to households where all members did not receive grants. Despite the marginal changes in households with at least one social grant recipient, during the second wave of the LCS results demonstrate that non-money-metric poverty headcount ratio of infamously ascribed as poorer regions such as Limpopo (78.08%), Eastern Cape (65.37%), KwaZulu-Natal (54.43%), and Mpumalanga (53.24%) was equidistant to Western Cape (5.84%) and Gauteng (10.85%).

Additionally, more than half households in both groups found in rural areas experienced non-money-metric poverty headcount between the two LCS waves relative to about less than the 20% non-money-metric poverty headcount identified in urban areas. Irrespective of refined policies around affirmative action and economic empowerment of vulnerable groups, more than half the proportion of unemployed households or inactive in the labour market with the additional income source of social grants were predominantly poorer than those employed. Concurrently, the higher non-money-metric poverty headcount ratio amongst households with lower educational attainment (i.e. incomplete primary and secondary), are parallel to findings in Table 4.7 of money-metric poverty headcount.

Finally, for the “at least one member receiving social grants” households, results on the difference in non-money-metric poverty headcount ratios between the two LCS’s indicate relatively higher decline in non-money-metric poverty for female-headed households relative to findings under the money-metric poverty headcount difference in Table 4.7. Likewise, households with at least one grant-recipient member who endured absolute declines in non-money-metric poverty headcount ratios were further identified as African, children below 14 years of age and the elderly, rural households, lower educational attainment and labour market prospects, respectively.

Thus, discussions around Tables 4.7 and 4.8 evidently presented that above and beyond a money-metric poverty headcount threshold, the incidence and intensity of deprivation as well as the extent of social grant income contributions were identified as relatively more severe under the measurement of non-money-metric poverty headcount ratio. That is, with the presence of social grant transfers to the most vulnerable groups identified in Tables 4.7 and 4.8 (i.e. female, African, middle/elderly age cohorts and more) contributed to the reduction of poverty likelihood between both LCS waves. However, in the case of non-money-metric

poverty headcount the incidence of deprivation for households without social grant recipients was more serious such that as the non-money-metric poverty headcount ratio between the most vulnerable groups and middle working class narrowed, the distant between richer households and the working class increased.

Expanding on the two groups of social grant receipt status, Table 4.9 presents a 2×2 matrix table of the poverty likelihood in terms of both money-metric and non-money-metric poverty. Likewise, results illustrate that from the proportion of people who are non-poor in both money-metric and non-money-metric poverty, the share increased from 34.15% to 46.63% when analysing households with at least one member receiving any social grant. However, this share was greater (2008/2009: 67.52%, 2014/2015: 75.46%) for households who did not receive any social grants. Undeniably, these results come to no surprise following the general notion that often households did not receive any social grants are presumed well-off in general.

Table 4.9: Money-metric and non-money-metric poverty status, by social grant receipt status

At least one member receiving grants							
2008/2009				2014/2015			
	Non-money-metric non-poor	Non-money-metric poor			Non-money-metric non-poor	Non-money-metric poor	
Money-metric non-poor	34.15	18.40	52.55	Money-metric non-poor	46.63	18.84	65.47
Money-metric poor	15.91	31.54	47.45	Money-metric poor	13.56	20.97	34.53
	50.06	49.94	100.00		60.19	39.81	100.00
All members did not receive grants							
2008/2009				2014/2015			
	Non-money-metric non-poor	Non-money-metric poor			Non-money-metric non-poor	Non-money-metric poor	
Money-metric non-poor	67.52	13.19	80.72	Money-metric non-poor	75.46	10.68	86.14
Money-metric poor	9.71	9.57	19.28	Money-metric poor	7.22	6.63	13.86
	77.24	22.76	100.00		82.69	17.31	100.00

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Intriguingly on the other hand, favourable results are shown for people identified as poor in both money-metric and non-money-metric poverty as the share dropped in both households with at least one member receiving any social grant and in those without grant recipients. When narrowing focus, the reduction of the proportion of poor people in both money-metric and non-money-metric poverty was evidently sturdier in households with at least one grant recipient (i.e. social grants reduced poverty likelihood by about 11 percentage points) relative to approximately 2.94 percentage change in households without any social grants.

4.2.3 Money-metric poverty decomposition by income source

Applying the FGT poverty (dfgts) using DASP Table 4.10 illustrates the money-metric poverty headcount ratio decomposition by six distinguished income sources. Empirical results have been disintegrated into three components for both LCS waves in all income sources. Although the income share of wages decreased between the two LCS's, this income source remained predominantly the largest contributor towards poverty alleviation (55.12% relative contribution in reducing money-metric poverty headcount). Conversely, the social grant income share represented 4.90% of total income in 2008/2009 and 3.83% in 2014/2015. Following this, when examining the relatively lower income share of social grants which averaged at 4% between the two LCS waves, it is evident that its relative contribution improved from 11.89% to 12.01% impact on reducing money-metric poverty headcount. In overall, while the absolute contribution of all six income source types improved (2008/2009: 68.10%, 2014/2015: 76.64%) similar consistency was noted for the total relative contribution.

Table 4.10: Money-metric poverty headcount ratio decomposition by income source

Income source	LCS 2008/2009			LCS 2014/2015		
	Income share (%)	Absolute contribution	Relative contribution (%)	Income share (%)	Absolute contribution	Relative contribution (%)
Wage	70.41	-0.4602	67.57	60.84	-0.4214	55.12
Self-employment	12.73	-0.0553	8.12	10.82	-0.0715	9.35
Rent	0.72	-0.0044	0.65	15.86	-0.1103	14.43
Social grant	4.90	-0.0810	11.89	3.83	-0.0918	12.01
Investment	5.52	-0.0240	3.51	4.93	-0.0179	2.34
Other	5.72	-0.0563	8.27	3.71	-0.0515	6.74
	100.00	-0.6810	100.00	100.00	-0.07644	100.00

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Further money-metric poverty decomposition by income source are illustrated by Tables 4.11 and 4.12 in terms of the poverty gap and squared poverty gap. That is, following aligning

results of the most significant relative contribution of wages towards reducing money-metric poverty, the relative contribution of social grants between both waves of the LCS decreased from 19.44% to 17.81% in terms of the poverty gap and from 22.08% to 19.74% money-metric severity of poverty.

Table 4.11: Money-metric poverty gap ratio decomposition by income source

Income source	LCS 2008/2009			LCS 2014/2015		
	Income share (%)	Absolute contribution	Relative contribution (%)	Income share (%)	Absolute contribution	Relative contribution (%)
Wage	70.41	-0.4826	57.64	60.86	-0.4111	45.91
Self-employment	12.73	-0.0646	7.72	10.82	-0.0765	8.54
Rent	0.72	-0.0055	0.65	15.86	-0.1509	16.86
Social grant	4.90	-0.1627	19.44	3.83	-0.1594	17.81
Investment	5.52	-0.0249	2.97	4.93	-0.0182	2.03
Other	5.72	-0.0968	11.57	3.71	-0.0792	8.85
	100.00	-0.8371	100.00	100.00	-0.8953	100.00

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Table 4.12: Money-metric squared poverty gap headcount ratio decomposition by income source

Income source	LCS 2008/2009			LCS 2014/2015		
	Income share (%)	Absolute contribution	Relative contribution (%)	Income share (%)	Absolute contribution	Relative contribution (%)
Wage	70.41	-0.4816	54.04	60.86	-0.3983	42.49
Self-employment	12.73	-0.0676	7.58	10.82	-0.0711	8.23
Rent	0.72	-0.0059	0.66	15.82	-0.1691	18.13
Social grant	4.90	-0.1968	22.08	3.83	-0.1851	19.74
Investment	5.52	-0.0252	2.83	4.93	-0.0182	1.94
Other	5.72	-0.1142	12.80	3.71	-0.0888	9.47
	100.00	-0.8913	100.00	100.00	-0.9374	100.00

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

To conclude results presented for Tables 4.10-4.12, it is apparent that the presence of social grants in households has made an impact on the alleviation of money-metric poverty. In particular, findings from these tables suggested that social grant income made a relative contribution of 12-20% in reduction of the three FGT poverty estimates between LCS 2008/2009 and 2014/2015.

4.3 Econometric Findings

In the interest of money-metric poverty likelihood, Table 4.13 presents the marginal effects⁹ of the observed variables. After controlling for differences in other characteristics, despite the different receipt status of social grants between both LCS waves' results indicate that females were significantly more likely to suffer money-metric poverty than males. However, the marginal effect dropped from about 6% in 2008/2009 to 4% in 2014/2015. Further, compared with the Africans (i.e., reference category), the other three ethnic groups experienced significantly lower money-metric poverty likelihood. That is, the Indian ethnicity was about 15% significantly less likely to be money-metric poor, followed by the Coloured community with about 11% (i.e. only in 2008/09) and Whites at approximately 12% (i.e. in 2014/15).

Between the two LCS waves, findings show that the age cohort dummies were statistically insignificant. Moreover, in contrast with the Western Cape, results illustrate that while North West and Mpumalanga remained statistically insignificant between both LCS periods, in 2008/2009 six provinces were associated with statistically greater money-metric deprivation probabilities. However, in 2014/2015 this only occurred to two regions namely, the Eastern Cape and Northern Cape. Likewise, rural residents suffered significantly greater money-metric poverty likelihood in both waves; however, the marginal effect dropped from approximately 11% in 2008/2009 to 7% in 2014/2015, *ceteris paribus*.

Undoubtedly, empirical results present a concave relationship between education and money-metric poverty likelihood. In particular, as educational attainment increased the money-metric poverty likelihood decreased but such a decline occurred at an increasing rate. These results support the conviction that, as the highly educated people are more likely to retain significantly more earnings in the labour market, their money-metric poverty chances are bound to be lower. Be that it may, between both LCS's the OAG and DG receipt resulted in significantly lower money-metric poverty likelihood compared with the rest of the grant types, respectively. Interestingly, the significant positive marginal effects of the CSG dummy are odd although this may be attributed to potential multicollinearity between the various social grant dummies.¹⁰

⁹ All corresponding coefficients are found in the appendix, as the main discussions for the purpose of this study focuses solely on the marginal effects. That is, Tables A.8 and A.9 for probit regressions on money-metric and non-money-metric poverty likelihood (showing the coefficients of explanatory variables).

¹⁰ This possible multicollinearity issue is dealt with later in Tables A.10 and A.11 when the probit regressions only includes one social grant receipt explanatory variable.

Table 4.13: Probit regressions on money-metric poverty likelihood (marginal effects)

	LCS 2008/2009			LCS 2014/2015		
	[I]	[II]	[III]	[I]	[II]	[III]
Gender: Female	0.0573***	0.0535***	0.0587***	0.0386***	0.0297***	0.0399***
Race Coloured	-0.1187***	-0.1035***	-0.1192***	-0.0901***	-0.0881***	-0.090***
Race: Indian	-0.1523***	-0.1361***	-0.1535***	-0.1332***	-0.1264***	-0.1336***
Race: White	-0.0365*	-0.0404**	-0.0387**	-0.1162***	-0.1121***	-0.1172***
Age: 15-24 years	0.1543	0.0851	0.1541	0.1019	0.0860	0.1072
Age: 25-34 years	0.0734	0.0048	0.0749	0.0398	0.2317	0.0451
Age: 35-44 years	0.0352	-0.0268	0.0362	-0.0087	-0.0216	-0.0041
Age: 45-54 years	0.0132	-0.0402	0.0142	-0.0427	-0.0482	-0.0388
Age: 55-64 years	-0.0368	-0.0713	-0.0366	-0.0849	-0.0799	0.0822
Age: 65+ years	-0.1078	-0.1078	-0.1069	-0.1130	-0.1025	-0.1111
Province: Eastern Cape	0.0804***	0.0828***	0.0812***	0.0717***	0.0724***	0.0719***
Province: Northern Cape	0.1304***	0.1345***	0.1315***	0.0558***	0.0623***	0.0562***
Province: Free State	0.1063***	0.1083***	0.1072***	0.0243	0.0246	0.0248
Province: KwaZulu-Natal	0.0589***	0.0623***	0.0596***	0.0149	0.0180	0.0152
Province: North West	0.0187	0.0199	0.0193	0.0149	0.0152	0.0149
Province: Gauteng	0.0527***	0.0539***	0.0529***	-0.0049	-0.0085	-0.0052
Province: Mpumalanga	0.0301	0.0272	0.3045	-0.0108	-0.0159	-0.0109
Province: Limpopo	0.0987***	0.0918***	0.0999***	0.0223	0.0173	0.0224
Area type: Rural	0.1153***	0.1153***	0.1152***	0.0706***	0.0693***	0.0710***
Education years	0.0058*	0.0017	0.0058*	0.0040	0.0017	0.0042
Education years squared	-0.0020***	-0.0018***	-0.0021***	-0.0016***	-0.0015***	-0.0017***
Employed	-0.2352***	-0.2491***	-0.2366***	-0.2515***	-0.2678***	-0.2528***
Number of children	0.0755***	0.0633***	0.0770***	0.0564***	0.0493***	0.0576***
Number of males 15-59 years	0.0284***	0.0329***	0.0286***	0.0167***	0.0191***	0.0171***
Number of females 15-59 years	0.0254***	0.0240***	0.0267***	0.0047	0.0035	0.0062
Number of elderly 60+ years	-0.0406***	-0.0048	-0.0363***	-0.1197***	-0.0909***	-0.1157***
Receipt: Old-age grant		-0.1216***			-0.0638***	
Receipt: Disability grant		-0.1072***			-0.1057***	
Receipt: Child grant		0.0935***			0.0636***	
Receipt: Dependency grant		-0.0663			-0.0836***	
Receipt: Foster care grant		-0.0392			-0.0415***	
Receipt: Grant in aid		-0.0491			-0.0781	
Receipt: War veteran grant		-0.1133			N/A	
Number of members receiving at least one social grant			-0.0075			-0.0057
Number of observations	24 747	24 747	24 747	23 292	23 292	23 292
Chi-squared statistics	3 844.28	4 086.38	3 840.38	3 207.59	3 365.94	3 210.22
Probability > Chi-squared statistic	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R-squared	0.2571	0.2676	0.2572	0.2946	0.3088	0.2946

*** Significant at 1%

** Significant at 5%

* Significant at 10%

Additionally, for the “number of members receiving at least one social grant” variable, marginal effects indicate that the more people in the household received social grants, the lower their chances of being associated with money-metric poverty. However, unfortunately the results are not statistically significant. Accordingly, the marginal effects of the number of children in households with social grants dropped from 6% in 2008/2009 to about 5%

significance of money-metric poverty likelihood in 2014/2015. Likewise, consistent improvements were noted for the combined age 15 to 65 and above years between both LCS waves although the female category was unfortunately statistically insignificant in 2014/2015.

Expanding on the same logic, comparing marginal effects of Table 4.14 with those of Table 4.13, results indicate that females were significantly less likely to suffer from non-money-metric poverty likelihood than males as the marginal effect remained consistent at about 3%. In contrast to the African group, the other three racial groups relished about 20% significance of lower non-money-metric poverty likelihood (relative to the -15% marginal effect in the case of money-metric poverty likelihood as discussed in Table 4.13 earlier). Contrary to the statistically insignificant results of age cohort dummies in Table 4.13, by the end of 2014/15 results in Table 4.14 show that all age cohorts were significantly less likely to be non-money-metric poor. That is, for households headed by people aged at least 25 years, they enjoyed more than 50% significantly lower likelihood of non-money-metric poverty, after controlling for differences in other characteristics.

Given the Western Cape as a reference group, Northern Cape and North West were the only two provinces where the probability of non-money-metric poverty was lower. Whereas, four regions continued to significantly experience greater non-money-metric poverty with the exception of Eastern Cape and Limpopo whose results were statistically insignificant between both LCS periods. Likewise, despite the results indicating that rural residents were significantly more likely (about 50%) to be money-metric poor, these findings are unfortunately statistically insignificant.

Moreover, parallel findings are noted on the concave relationship between educational attainment and non-money-metric poverty likelihood in Table 4.14 as discussed under money-metric poverty likelihood in Table 4.13. Nevertheless, unlike findings in Table 4.13, the non-money-metric marginal effect for the “number of children” variable demonstrates only approximately 1-2% marginal effect on more significant non-money-metric deprivation probability. On the other hand, the presence of more male and female household members aged 15-59 years was associated with significantly lower non-money-metric poverty probability.

Table 4.14: Probit regressions on non-money-metric poverty likelihood (marginal effects)

	LCS 2008/2009			LCS 2014/2015		
	[I]	[II]	[III]	[I]	[II]	[III]
Gender: Female	-0.0202***	-0.0254***	-0.0236***	-0.0235***	-0.0307***	-0.0275***
Race Coloured	-0.1928***	-0.1906***	-0.1920***	-0.1872***	-0.1871***	-0.1873***
Race: Indian	-0.2187***	-0.2175***	-0.2171***	-0.2132***	-0.2113***	-0.2123***
Race: White	-0.2733***	-0.2723***	-0.2716***	-0.2063***	-0.2024***	-0.2030***
Age: 15-24 years	0.1423	0.1236	0.1444	-0.2826***	-0.2823***	-0.2820***
Age: 25-34 years	0.0887*	0.0671*	0.0885*	-0.4589***	-0.4616***	-0.4604***
Age: 35-44 years	-0.0021***	-0.0194***	-0.0014***	-0.5236***	-0.5273***	-0.5258***
Age: 45-54 years	-0.0714***	-0.0832***	-0.0706***	-0.5717***	-0.5749***	-0.5737***
Age: 55-64 years	-0.0894***	-0.0968***	-0.0867***	-0.5196***	-0.5219***	-0.5204***
Age: 65+ years	-0.1128***	-0.1148***	-0.1121***	-0.5320***	-0.5344***	-0.5328***
Province: Eastern Cape	0.2078	0.2054	0.2062	0.2506	0.2502	0.2493
Province: Northern Cape	0.0189**	0.0183**	0.0174**	0.0448**	0.0438**	0.0438**
Province: Free State	-0.0331***	-0.0353***	-0.0338***	-0.0449***	-0.0462***	-0.0462***
Province: KwaZulu-Natal	0.0665*	0.0663*	0.0657*	0.1361	0.1382	0.1360
Province: North West	-0.0501***	-0.0514***	-0.0516***	-0.0743***	-0.0731***	-0.0744***
Province: Gauteng	0.0502*	0.0504*	0.0506*	0.0411**	0.0435**	0.0429**
Province: Mpumalanga	0.0234**	0.2199**	0.0228**	0.0422**	0.0436**	0.0433**
Province: Limpopo	0.1173	0.1129	0.1151	0.1389	0.1400	0.1392
Area type: Rural	0.5170	0.5171	0.5175	0.5361	0.5344	0.5347
Education years	-0.0056***	-0.0064***	-0.0057***	-0.0076***	-0.0084***	-0.0081***
Education years squared	-0.0022***	-0.0021***	-0.0022***	-0.0011***	-0.0019***	-0.0019***
Employed	-0.1927***	-0.1912***	-0.1893***	-0.2466***	-0.2427***	-0.2418***
Number of children	0.0141**	0.0075***	0.0103**	0.0146**	0.0091***	0.0101**
Number of males 15-59 years	-0.0101***	-0.0102***	-0.0114***	-0.0150***	-0.0159***	-0.0165***
Number of females 15-59 years	-0.0137***	-0.0164***	-0.0169***	-0.0238***	-0.0283***	-0.0303***
Number of elderly 60+ years	0.0053***	0.0037***	-0.0104***	-0.0389***	-0.0447***	-0.0557***
Receipt: Old-age grant		-0.0144***			0.0142**	
Receipt: Disability grant		-0.0096***			0.0101**	
Receipt: Child grant		0.0436**			0.0390**	
Receipt: Dependency grant		0.1013			-0.0081***	
Receipt: Foster care grant		-0.0080***			0.0090***	
Receipt: Grant in aid		-0.0809***			-0.0196***	
Receipt: War veteran grant		0.1393			N/A	
Number of members receiving at least one social grant			0.0178**			0.0232**
Number of observations	24 747	24 747	24 747	23 292	23 292	23 292
Chi-squared statistics	6 307.57	6 348.92	6 320.02	15 514.36	15 533.83	15 528.42
Probability > Chi-squared statistic	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R-squared	0.4914	0.4925	0.4918	0.5172	0.5179	0.5177

*** Significant at 1%

** Significant at 5%

* Significant at 10%

The 2008/2009 results appear to make more sense as the recipients of the OAG, DG, FCG and Grant-in aid were associated with significantly lower money-metric poverty likelihood but once again, an encounter of weirdly significant positive marginal effect on the CSG receipt dummy is evident. Conversely, the 2014/2015 results are evidently more uncanny as the first three social grant dummies have significant but positive marginal effects with the exception of significant an negative marginal effects for the CDG and Grant-in aid dummies.

Taking into consideration earlier discussions in section 4.2 whereby the ‘differences’ columns presented by the descriptive tables indicated that although households that received any type of social grant experienced poverty reduction between the two LCS waves, the poverty headcount of these households remained relatively higher than persons who did not receive social grants. Similarly, empirical findings on the examination of each social grant dummy variable¹¹ indicates the possibility that the social grant recipients were associated with significantly greater money-metric poverty likelihood (i.e., when differences in other characteristics were unaccounted for, the significant yet positive marginal effects come as no surprise). Nonetheless, this is except for the War veterans grant in 2008/2009 (11.32 significance of less poverty likelihood) and the Grant-aid grant during 2014/2015 (about 6.32%) which were very small numbers. Additionally, the insignificance of the CSG dummy may be predictable at this point when bearing in mind the diminutive monthly amount of type has been even post the LCS periods used. Hence, it is no shocker that this particular grant type might not really have any strong poverty reduction impact.

Finally, the supplemented results of Table A.11 further illustrate that in the case of uncontrolled differences in other characteristics the marginal effects of each social grant dummy observed were undeniably as insignificant and positive as in the money-metric context in Table A.12. However, exceptions for results in the Grant-in aid that was significant but positive between both LCS’s and the War veterans grant in 2008/2009 (i.e. was 9% significant in reduced money-metric poverty likelihood).

4.4 Conclusion

This chapter began with the descriptive statistics, whose discussions were split into three subsections in efforts of distinguishing the poverty profile of social grant recipients from non-grant recipients. Thus, following the scope of this research, the collated descriptive statistics analysis found that recipients of social grants were more likely to be characterised as females, African, middle/elderly age cohort, with lower educational attainment (i.e. primary or secondary phase), unemployed and from previously proclaimed relatively poor regions like the Eastern Cape or Limpopo. Likewise, empirical findings indicate that despite the considerable extent of reductions in both the money-metric and non-money-metric poverty, the descriptive tables that provided “differences” in results suggest that the social grant recipients still had relatively higher poverty rate even in 2014/2015.

¹¹ Refer to Table A.12 in the appendix.

Further, the probit regressions results discussed in the analysis of empirical findings revealed similar outcomes in identifying the most common attributes of social grant recipients often associated with impoverishment. That is, after controlling for differences in other characteristics regressions affirmed social grant recipients found in other South African ethnic groups apart from the African community, all age cohorts and with the presence of female and male adults aged 15-59 led to significantly lower poverty likelihood by end of the 2014/2015 LCS, *ceteris paribus*.



CHAPTER FIVE: CONCLUSION

5.1 Introduction

In hindsight of the empirical analysis investigated in the previous chapter, this conclusion chapter provides summary remarks and policy suggestions. Specifically, section 5.2 presents a substantial review of empirical findings presented in the paper. Whilst section 5.3 provides concluding notes on the study with some possible policy recommendations on the alleviation of poverty and the consequential role of social grant income.

5.2 Review of findings

The first section of empirical findings revealed favourable results on the entire proportion of households with relatively decent welfare using defined dimensions. That is, employing the fuzzy sets weightings showed that comparison within each dimension found that between both LCS waves almost three quarters of households resided in formal dwelling, had access to electricity and basic sanitation. Although these three sub-dimensions reflected a greater 'decent welfare', interestingly the absolute increase of access to cellular or landline indicated what might be an evolved perception in identifying adequate welfare standards. Whereas, in the comparison across all dimensions noted that essential public services such as energy, water and sanitation still accounted for greater weightings as a result of their impact on the presence of deprivation.

Moreover, the descriptive analysis on the profile of social grant recipients followed, whereby the scrutiny of six identified income sources evidently revealed significant increases in the wage and self-employment income share of the total household income between both periods of the LCS. Likewise, these results further illustrated the moderately shrinking distance between middle-income and higher-income classes, while conversely the contrary may be presumed between poorer deciles and the middle-income households. Consequently, given the hefty reliance on social grants by poor deciles findings indicated that the social grant types with relatively higher real purchasing power included the OAG, DG and CDG (1500 rand monthly average). Conversely, the smallest magnitude was the CSG with approximately 400 rand despite the robust uptake in its beneficiaries over the period of 2008 to 2019.

Meticulously, parallel findings at both person and household levels indicated that across all seven types of social grants female recipients aged between 25-34 years mostly accounted for about 90% of the CSG. For recipients who received at least one grant type almost three

quarters were of African ethnicity. While oddly at person-level analysis, Gauteng featured as one of the top three regions with significantly greater share in social grant recipients, the Eastern Cape and Kwa-Zulu Natal remained highly associated with this significant grant-recipient share at both levels of analysis. Additionally, between both LCSs results indicated that more than 50% of urban residents were social grant recipients. Given that there were about 80% unemployed grant recipients by 2014/2015, these results may be attributed by the findings of approximately 90% of these recipients having lower educational attainment. The few exceptions illustrated at household level revealed that households with relatively larger member size (i.e. 5-6 and above) constituted of significantly more CSG, CDG and FCG recipients. As such, these households were estimated to have three children on average with either single mothers and absent or lower male adult presence.

Furthermore, empirical results on both money-metric and non-money-metric poverty headcount by social grant receipt emphasised the nature of severity of the latter poverty type beyond doubt. That is, even with the contribution of social grant income, the most prominently vulnerable group included being female, African, middle aged and more, despite the marginal reductions in their poverty likelihood. Additionally, the estimated “differences” results indicated prevalent poverty reductions in both social grant statuses of households. Be that it may, findings further illustrated that households with at least one member who was social grant recipient experienced appreciably significant poverty headcount reduction (compared without households without any social grant receipt). However, in both illustrations of money-metric and non-money-metric poverty headcounts, the level of deprivation encountered by the former household group remained relatively higher than that of the latter household group. In other words, while the presence of social grant income contributed towards lessened likelihoods of impoverishment; social grant recipients were still lagging behind non-recipients in terms of welfare standards by end of 2014/2015. Alternatively, the 2×2 matrix analysis of poverty likelihood results illustrated that while non-poor rate between both poverty types increased, similar favourable results on the share of poor in both poverty types declined in both household groups. This decline was sturdier in households with at least one grant-recipient. Empirical results on poverty decomposition by income sources corresponded with earlier findings on income share of total household income.

On other hand, findings on the probit regression indicated corresponding key highlights. However, focusing on the receipt of social grants, despite most dummy variables being

statistically insignificant under money-metric poverty results show that females, middle-aged, White, Coloured and Indian ethnicities were significantly less likely to be non-money-metric poor. Contrary, six provinces in 2008/2009 suffered significantly greater non-money-metric poverty likelihood however this reduced to only four regions by 2014/2015 compared to the reference group. A concave relationship between educational attainment in years (as shown by the squared coefficients) and both poverty types was found. Finally, results showed favourable findings on OAG and DG recipients' poverty likelihood with the exceptional case of multicollinearity around the CSG.

5.3 Conclusion and Policy Recommendations

Amidst the multilateral socioeconomic challenges faced by RSA's majority population, this study generally investigated the impact of social assistance programme on poverty alleviation using the Livings Condition Survey of 2008/2009 and 2014/2015. Likewise, in efforts to provide a comprehensive overview of the conceptualisation and measurement of deprivation in this context the study incorporated both money-metric and non-money-metric poverty approaches to examine efforts (or lack thereof) towards comparable welfare standards for all. In particular, this included examining the trends of social grant receipt in RSA's recent years, conducting descriptive statistics on the demographic characteristics of people deemed poor and simultaneously classified as social grant recipients (compared with their counterparts in society). Further, the empirical investigation also conducted multivariate economic analysis on the target population as probit regressions on both money-metric and non-money-metric poverty probabilities were employed, after controlling for differences in other characteristics.

Concurrently, drawing from the nation's extensive political and socioeconomic chronicles (pre-&-post the former regime) discussions presented in this study showed slow progress in reducing deprivation levels even with the presence of social grant transfers. However, bearing in mind that it was never the state's primary intention to solely use social grant income-support to alleviate poverty, this study illustrated a limited contribution of grant receipt in this context. Consequently, taking into consideration the hefty reliance on social grant income-support for the poor, it is imperative to acknowledge the fiscal strain encountered by the government and to encourage alternatively reformed policy interventions to consider in this regard.

Firstly, following a study by Obi (2007), the importance of establishing a balanced and sustainable relationship between the fiscal policy and monetary policy is essential. With the

objective of influencing economic activity the state's revenue and expenditure decorum interchangeably enacts three types of fiscal stances. Specifically, the implementation of fiscal stimulus is often associated with a budget deficit in efforts to expand the economy. At this point, the state may increase its public expenditure, reduce tax revenue or combine both acts. Public expenditure increase can take form through the state's acquiring of assets from the private sector for redistribution purposes or indirect transfers to the public for consumption expenditure, while on the other hand, relaxed taxation increases disposable income encouraging economic participation. In brief, this expansionary policy is considered beneficial during a recession as it reduces the implications of a recession which may include stagnated wages and high unemployment. Conversely, its downside includes growth in trade deficit and an accelerated inflation similarly to the rates between 2008/2009 that moved from 10.99% to 7.12% (6.09% to 4.58% by end of 2014/2015) (Stats SA, 2020). Contracting fiscal policy involves slowing down economic activities as government spending reduces, collection of tax revenue increases and disposable income shrinks consequently. This policy is often used to avoid or reduce implications of the fiscal stimulus or alternatively manage public debt levels.

A balance of both fiscal stances is necessary, although risk implications are ultimately inevitable whereby policy makers have to decide which components to reduce and increase expenditure and revenue on. In addition, by its definition the monetary policy needs to feature in this intervention as a result of its influence on inflation rates (Saeed, 2020).

Secondly, as noted by Van der Berg and Bredenkamp (2002) social security system reform may also be needed in this context. Evidently, as indicated by empirical results found in this research the impact of the social assistance programme, particularly the transfer of social grants is limited. Despite the consistently growing rate in beneficiary coverage, the real purchasing power of these grant types may be considered insufficient to some extent in effort of sustaining basic living. Similarly, although an extensive review of the social insurance system was not covered in the scope of this research its eminent gaps are inclusive of failure to recognise and support informal works and other "investment" societies such as "stockvels". Interestingly, the conspicuous debates centralised on formulating and implementing a basic-income-grant in RSA has already captured the Presidency and DSD as additional alternatives towards poverty alleviation (Montatlo, 2021).

Finally, intuitively continuous measures towards enhancing labour market prospects are also very essential in this regard given the results of a concave relationship between educational attainment and employment. That is, parallel with the states determination of child poverty eradication, investing in early childhood learning (i.e. primary and secondary phases as indicated by results) is paramount to ensure better chances for all at different levels of the educational system. Additionally, these need to be accompanied with healthcare support (both physical and mental health), food security, and quality infrastructure and learning resources. Moreover, given an economy with ever-evolving labour skills demanded, educational systems need to move parallel with these demands in order to supply labour tailored for ensuring economic growth and development in the country. Other initiatives may include investing in low-income earners of public works as well as sustainable community outreach programs.



REFERENCES

- Agresti, A. (1990). *Categorical Data Analysis*. New York: John Wiley & Sons.
- Alkire, S. & Foster, J. (2011). Understandings and misunderstandings of multidimensional poverty measurement, *Journal of Economic Inequality*, 9(2): 289-314.
- Allen, V.L., (2010). Theoretical Issues in Poverty Research. *Journal of Social Issues*. 26: 149-167.
- Araar, A., & Duclos, J.Y. (2013). *DASP: Distributive Analysis Stata Package. User Manual, DASP version 2.2*. Universit Laval. PEP CIRPEE and World Bank.
- Armstrong, P. & Burger, C. (2009). Poverty, inequality and the role of social grants: An analysis using decomposition techniques. *Stellenbosch Economic Working Papers 15/2009*. Stellenbosch: University of Stellenbosch.
- Armstrong, P., Lekezwa, B. & Siebrits, K. (2008). Poverty in South Africa: A profile based on recent household surveys. *Stellenbosch Economic Working Papers 04/2008*. Stellenbosch: University of Stellenbosch.
- Banerjee, A.V., & Duflo, E. (2012). *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. Public Affairs, New York. 7: 303.
- Barrientos, A. (2010). Social protection and poverty. *Social Policy and Development Paper No.92*.
- Barrientos, A., & Lloyd-Sherlock, P. (2002). Older and poorer? Ageing and poverty in the South. *Journal of International Development*, 14(8): 1129-1131.
- Bhorat, P., Oosthuizen, M. & Standwix, B. (2021). Social assistance amidst the Covid-19 epidemic in South Africa: Policy Assessment. *South African Journal of Economics* 89(1).
- Bloemen, H. & Stancanelli, E. (2001). Individual wealth, Reservation Wages and Transitions into Employment. 19(2): 400-439.
- Borjas, G. (2011). Poverty and Program Participation among Immigrant Children. *The Future of Children*, 21(1): 247-266.
- Borjas, G. (2016). *Labor Economics*. 6th edition. New York: McGraw-Hill.
- Bourgois, P. (2015). In *International Encyclopedia of the Social & Behavioral Sciences (Second Edition)*.
- Bradshaw, T.K. (2006). Theories of poverty and anti-poverty programs in community development. *Community Development*, 38(1): 7-25.

- Brockerhoff, S. (2013). A review of the development of Social Security Policy in South Africa. *Studies in poverty and inequality institute*, 6(1).
- Burger, R., Van der Berg, S., Van der Walt, S.J. & Yu, D. (2017). The Long walk: considering the enduring spatial and racial dimensions of deprivation two decades after the fall of apartheid. *Social Indicators Research*, 130(3): 1101-1123.
- Case, A. & Deaton, A. (1998). Large cash transfers to the elderly in South Africa. *The Economic Journal*, 108: 450.
- Ceroli, A. & Zani, S. (1990). A fuzzy approach to the measurement of poverty. In Dagum, C and Zenga, M (Eds.), *Income and Wealth Distribution, Inequality and Poverty*. Berlin: Springer Verlag: 272-284.
- Cheli, B. & Lemmi, A. (1995). A totally fuzzy and relative approach to multidimensional analysis of poverty. *Economic Notes*, 24(1): 115-134.
- Clark, D. & Qizilbash, M. (2005). The capability approach and fuzzy poverty measures: an application to the South African context, *Social Indicators Research*, 74(1): 103-139.
- Clark, D. & Qizilbash, M. (2008). Core Poverty, Vagueness and Adaptation: A new methodology and some results for South Africa, *The Journal of Development Studies*, 44(4): 519-544.
- Collett, D. (1991). *Modelling Binary Data*. London: Chapman and Hall.
- Davidson, J.D. (1985). Theories and Measures of Poverty: Toward A Holistic Approach. *Sociological Focus*. 18(3): 177-198.
- Dekker, A., Van Rensburg, L.J., Liffman, R., Thompson, M., Van Der Walt, A., (2009). *Social Security: a conceptual view*.
- Department of Social Development (2002). *Committee reports of the Taylor Committee into a social security system for South Africa*. (8).
- Department of Social Development (2009). *Annual Report for the year ended 31 March 2009*. Republic of South Africa.
- Department of Social Development (2012). *Minister's forward on Social development*. Republic of South Africa.
- Department of Social Development (2015). *Annual Report for the year ended 31 March 2015*. Republic of South Africa.
- Department of Social Development (2019). *Annual Report for financial year 2019/2020*. Republic of South Africa.
- Department of Social Development (2019). *Annual Report for the year ended 31 March 2019*. Republic of South Africa.

- Faria, V. E. (2002). Institutional reform and government coordination in Brazil's social protection policy. CEPAL review.
- Foster, J. (2010). The Foster-Greer-Thorbecke poverty measures: Twenty-five years later. IIEP Working Paper Series. Elliott School of International Affairs. Washington, DC: The George Washington University Institute for International Economic Policy.
- Foster, J., Greer, J., Thorbecke, E. (1998). Absolute versus relative poverty. *The American Economic Review*, 88(2): 335-341.
- Guillebaud, C.W. (1942). The Evolution of Marshall's Principles of Economics. *The Economic Journal*, 52(208), 330-349.
- Hargreaves, J.R., Morison, L.A., Gear, J.S., Makhubele, M.B., Porter, J.D., Busza, J., Watts, C., Kim, J.C. & Pronyk, P.M. (2007). "Hearing the voices of the poor": assigning poverty lines on the basis of local perceptions of poverty. A quantitative analysis of qualitative data from participatory wealth ranking in rural South Africa. *World Development*, 35(2): 212-229.
- Haughton, J. & Khandker, S.R. (2009). *Handbook on poverty and inequality*. Washington, DC: World Bank.
- Howell, F. (2001). Social Assistance - Theoretical Background. In *Social Protection in the Asia and Pacific*, ed. I. Ortiz, Asian Development Bank, Manila, (ch.7).
- Jackman, R. W. & Miller, R.A. (1996). The Poverty of Political Culture. *American Journal of Political Science*, 40(3), 697-716.
- Jacobs, P., Ngcobo, N., Hart, T. & Baipheti, M. (2010). Developmental social policies for the poor in South Africa: Exploring options to enhance impacts? Conference Paper: Overcoming inequality and structural poverty in South Africa: Towards inclusive growth and development, Johannesburg, September 20-22.
- Jansen, A., Moses, M., Mujuta, S. & Yu, D., (2015). Measurements and determinants of multifaceted poverty in South Africa. *Development Southern Africa*, 32(5): 151-169.
- Klasen, S. & Woolard, I. (2005). Determinants of Income Mobility and Household Poverty Dynamics in South Africa. *Journal of Development Studies*. 41(5): 865-897.
- Leibbrandt, M., Poswell, L., Naidoo, P. & Welch, M., (2006). Measuring recent changes in South African inequality and poverty using the 1996 and 2001 Census data. In Borhat, H., & Kanbur, R (Eds.), *Poverty and policy in post-apartheid South Africa*. Human Sciences Research Council, Cape Town, 95-142.
- Lekezwa, B. (2011). The impact of social grants as anti-poverty policy instruments in South Africa: an analysis using household theory to determine intra-household allocation of unearned income.

- Lestoalo, P.M. (2015). An overview an assessment of different approaches to poverty measurement in South Africa. Pretoria: University of Pretoria.
- Lewis, O., (1966). The Culture of Poverty. 215(4): 19-25. Scientific American, a division of Nature America, Inc.
- Li, C., Poskitt, D. & Zhao, X. (2016). The Bivariate Probit Model, Maximum Likelihood Estimation, Pseudo True Parameters and Partial Identification. Journal of Econometrics, 209(1).
- Lund, F. (2002). Social security and the changing labour market: Access for non-standard and informal workers in South Africa. Social Dynamics, 28(2): 177-206.
- Makhetha, M.T. (2015). A policy-making framework for social assistance in South Africa: the case of the Department of Social Development and the South African Social Security Agency. North West University.
- Miceli, D. (1998). Measuring Poverty Using Fuzzy Sets. National Centre for Social and Economic Modelling. University of Canberra, Australia.
- Mkandawire, T. (2010). Colonial Legacies and Social Welfare Regimes in Africa. United Nations Research Institute for Social Development. 4(2016).
- Montatlo, P.A. (2021). Is basic income grant sustainable?. Researching Capital Markets and Financial Services. Thought Leadership. (September).
- Motloug, B. & Mears, R. (2002). Combating poverty in South Africa. Development Southern Africa. 19(4):531-543.
- Mpedi, L.G. & Strydom, S.N., (2002). (ed) Essential Social Security Law, Kenwyn, Juta, 2001 (Book Review)". 4(841).
- Mpedi, L.G. (2008). Pertinent social security issues in South Africa. Socio-Economic Rights Project. Community Law Centre. University of the Western Cape.
- Mutasa, G. (2012). Disability grant force participation: The case of South Africa. Development Policy Research Unit, 12(156).
- Naidoo, V. (2007). A multidimensional measure of poverty in South Africa. Pretoria: University of Pretoria.
- National Treasury. (2017). Our future work- National Development Plan 2030 Executive Summary. National Planning Commission| Republic of South Africa.
- National Treasury. (various years). Budget Review. Pretoria: National Treasury.
- Neff, D. (2017). Fuzzy set theoretical applications in poverty research. Policy & Society, 32(4): 319-331.
- Obi, O.B, (2007). Fiscal policy and poverty alleviation: Social policy options for Nigeria. African Economic Research Consortium. Nairobi. 164 (February).

- Posel, D. & Rogan, M. (2012). Gendered trends in poverty in the post-apartheid period, 1997-2006. *Development Southern Africa*, 29(1): 97-113.
- Posel, D. & Rogan, M. (2013). Measured as poor versus feeling poor: Comparing objective and subjective poverty rates in South Africa. Paper presented at the Economic Society of South Africa (ESSA) Conference, Bloemfontein, September 25-27.
- Qizilbash, M. (2002). A note on the measurement of poverty and vulnerability in the South African context. *Journal of International Development*, 14(6): 757-772.
- Ravallion, M. (1992). Poverty comparisons: a guide to concepts and methods. Living Standards Measurement Study Working Paper No. 88. Washington DC: World Bank.
- Ravallion, M. (1996). Issues in measuring and modelling poverty. *The Economic Journal*, 106 (September): 1328-1343.
- Ravallion, M. (1998). Poverty lines in Theory and Practice. LSMS Working Paper Number 133. Washington, DC: World Bank.
- Ravallion, M. (2012). Fighting Poverty One Experiment at a Time: A Review of Abhijit Banerjee and Esther Duflo's "Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty" [Review of Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty, by A. Banerjee & E. Duflo]. *Journal of Economic Literature*, 50(1), 103–114.
- Rawlings, L.B., Rubio, G.M. (2005). Evaluating the Impact of Conditional Cash Transfer Programs. Oxford University Press on behalf of the World Bank.
- Rogan, M. (2016). Gender and multidimensional poverty in South Africa: applying the global multidimensional poverty index (MPI). *Social Indicators Research*, 126(3): 987-1006.
- Saeed, M. (2020). The effect of monetary policy on poverty alleviation in Parkistan. *Journal of Research & Reviews in Social Sciences. Parkistan*. 3(1): 624-638.
- Schiel, R., Leibbrandt, M., & Lam, D. (2014). Assessing the Impact of Social Grants on Inequality: A South African Case Study. World Institute for Development Economic Research (UNU-WIDER).
- Scott, L. (1997). Regression Models for Categorical and Limited Dependent Variables. *Advanced Quantitative Techniques in the Social Sciences Number 7*. Sage Publications: Thousand Oaks, CA.
- Sen, A.K. (1985). *Commodities and capabilities*. Amsterdam: North-Holland.
- Sinn, Hans-Werner. 1995. A theory of the welfare state. *Scandinavian Journal of Economics*, 97(4): 495–526.
- Sinn, H-W. (1996). Social insurance, incentives and risk taking. *International Tax and Public Finance*, 3: 259–80.

- Skoufias, E. (2005). PROGRESA and its impacts on the welfare of rural households in Mexico Vol.139. Intl Food Policy Res Inst.
- Stark, B. (2009). Theories of Poverty/The Poverty of Theory.
- Statistics South Africa. (2014). Measuring poverty in SA. 5(3). Fieldworker.
- Statistics South Africa. (2015). Methodological report on rebasing of national poverty lines and development of pilot provincial poverty lines: technical report. Pretoria: Statistics South Africa.
- Statistics South Africa. (2017). Consumer Price Index. Pretoria: Statistics South Africa.
- Strauss, Z. & Horsten, D., (2013). A human rights-based approach to poverty reduction: the role of the right of access to medicine as an element of the right of access to health care. 16(3).
- Townsend, P. (1979). Poverty in the United Kingdom. Allen Lane and Penguin Book. London.61-92.
- Van der Berg, S. & Bredenkamp, C. (2002) Devising social security interventions for maximum poverty impact, *Social Dynamics*, 28(2): 39-68.
- Van der Berg, S. & Siebrits, K. (2015). Social security. 6th ed. In Rapley, E., (Ed). Oxford: University of Oxford: 171-189.
- Van der Berg, S. (1998). Ageing, public finance and social security in South Africa. *Southern African Journal of Gerontology*; 7(1): 3-9.
- Van der Berg, S. (1999). South African social security under apartheid and beyond. *Development Southern Africa*; 14(4): 481-503.
- Van der Berg, S. (2010). Current poverty and income distribution in the context of South African history. Working Paper No. 22(10). Stellenbosch: Stellenbosch University.
- Van der Berg, S. (1997). South African social security under apartheid and beyond. *Development Southern Africa*, 14(4): 481-503.
- Van der Berg, S., Louw, M. & Du Toit, L. (2009). Poverty trends since the transition: What we know. Working Paper No. 19. Stellenbosch: Stellenbosch University.
- Van der Berg, S., Siebrits, K. & Lekezwa, B. (2010). Efficiency and equity effects of social grants in South Africa. Working Paper No.15 (10). Stellenbosch: Stellenbosch University.
- Walt, C., Proctor, B. & Lee, C. (2004). Income, Poverty, and Health Insurance Coverage in the United States. U.S. Census Bureau, Current Population Reports, P60-229. U.S. Government Printing Office, Washington, DC.

- Winkelmann, R. (2011). Copula Bivariate Probit Models: With an Application to Medical Expenditures. IZA Institute of Labor Economics. Center for Economic Policy Research (CEPR).
- Woolard, I. & Leibbrandt, M. (1999). Measuring Poverty in South Africa. DPRU Working Paper No 99/33. Cape Town: Development Policy Research Unit, University of Cape Town.
- Woolard, I. & Leibbrandt, M. (2006). Towards a poverty line for South Africa: Background note. Cape Town: Southern Africa Labor and Development Research Unit, University of Cape Town.
- Woolard, I., Harttgen, K. & Klasen, S. (2010). The evolution and impact of social security in South Africa. Paper prepared for the Conference on “Promoting Resilience through Social Protection in Sub-Saharan Africa”, organized by the European Report of Development in Dakar, Senegal, June 28-20.
- World Bank. (2001). World Development Report 2000/2001: Attacking Poverty. New York: Oxford University Press.
- World Bank. (2016). Global Monitoring Report 2015/2016: Development Goals in an Era of Demographic Change. Washington, DC: World Bank.
- World Bank. (2018). South Africa Economic Update. Washington, DC: World Bank. Ed(11).
- Zadeh, L.A. (1965). Fuzzy sets. Information and Control, 8(3): 338-353.

APPENDIX

Table A.1: Social grant eligibility criteria for the fiscal year 2012/2013

Social Grants	Purpose	Who can apply	Amount in Rand	Means Test (Max income & assets to be eligible)
Old Age Grant	Income support for older men and women	60 years or older SA citizens and permanent residents	R 1 880	Income: Single= less than R78 120 pa or Married = less than R156 240 pa Assets: Single = less than R1 115 400 pa or Married = less than R2 230 800 pa
War Veterans' Grant	Income support to older men and women who served in 1st, 2nd WW or the Korean war	60 years or older SA citizens and permanent residents	R1 880	Income: Single =less than R78 120 pa Married = less than R156 240 pa Assets: Single = less than R1 115 400 pa or Married = less than R2 230 800 pa
Disability Grant	Income support to adults who are not able to work because of a mental or physical disability	Adults who are 18 or older SA citizens and permanent residents and refugees	R1,860	Income: Single = less than R78 120 pa Married = R156 240 pa Assets: Single = less than R1 115 400 pa or Married = less than R2 230 800 pa
Grant in Aid	Income support to people (already getting Older Persons; War Veterans or Disability Grant) who need full-time care from someone	Adults who are 18 or older SA citizens and permanent residents	R440	Not means tested
Foster Child Grant	Income support to caregivers of children in foster care (you must have a court order)	Foster parents of children under 18 (or up to 21 on the recommendation of social worker) SA citizens and	R1 040	Not means tested

		permanent residents and refugees		
Care Dependency Grant	Income support to caregivers providing permanent care to children with severe mental or physical disabilities (must have medical assessment)	Parent or caregiver or foster parent of children from 1 up to 18 years (not for infants) SA citizens and permanent residents	R1 860	Income: Single = less than R202 800 pa Married =less than R405 600 pa No Asset test
Child Support Grant	Income support to caregivers of children in need.	Parent or primary caregiver of children born on or after 31 December 1993. SA citizens and permanent residents	R440	Income: Single = less than R48 000 pa Married =less than R 96 000 pa No Asset test

Source: Brockerhoff, S. (2013). Studies in poverty and inequality institute.



UNIVERSITY of the
WESTERN CAPE

Table A.2: Vertical weights

Dimensions	Categories	LCS 2008/09		LCS 2014/2015	
		Proportion of households (%)	Vertical Weight	Proportion of households (%)	Vertical Weight
Dwelling	1. Formal house/flat	71.07	0.0000	73.82	0.0000
	2. Informal dwelling	28.93	1.0000	26.18	1.0000
Electricity	1. Electricity	73.58	0.0000	82.19	0.0000
	2. Gas	2.12	0.0802	3.41	0.1916
	3. Paraffin/Coal	10.41	0.4743	4.85	0.4640
	4. Wood/Dung	13.89	1.0000	9.54	1.0000
Water	1. Tap in dwelling	44.90	0.0000	46.29	0.0000
	2. Tap in premises	27.04	0.4974	29.29	0.5454
	3. Public tap	16.99	0.8058	14.65	0.8182
	4. Other	6.46	1.0000	5.24	1.0000
Sanitation	1. Toilet facility	61.43	0.0000	64.75	0.0000
	2. Pit latrine	30.59	0.7931	30.72	0.8712
	3. Bucket latrine	1.52	0.8325	1.34	0.9092
	4. None	7.27	1.0000	3.20	1.0000
Refuse removal	1. Removed once a week	59.42	0.0000	65.53	0.0000
	2. Removed less often	2.31	0.0569	2.05	0.0595
	3. Communal refuse dump	1.81	0.1015	3.12	0.1500
	4. Own refuse dump	28.84	0.8122	25.76	0.8973
	5. No access	7.62	1.0000	3.54	1.0000
Telephone	1. Both Landline telephone and cell phone	13.69	0.0000	8.55	0.0000
	2. Either one	70.44	0.8161	84.57	0.0000
	3. None of both	15.87	1.0000	6.87	1.0000
Education of household head	1. Above Matric	14.81	0.0000	15.20	0.0000
	2. Matric	14.66	0.1721	20.95	0.2471
	3. Incomplete secondary	40.95	0.6528	42.15	0.7442
	4. Incomplete primary	17.09	0.8534	13.46	0.9029
	5. No schooling	12.49	1.0000	8.23	1.0000
Labour market status of household head	1. Employed	58.75	0.0000	62.35	0.0000
	2. Not employed	41.25	1.0000	37.65	1.0000

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Table A.3: Horizontal weights

Dimensions	LCS 2008/09	LCS 2014/15
Dwelling	0.1560	0.1562
Energy	0.2089	0.2429
Water	0.1232	0.1150
Sanitation	0.1434	0.1359
Refuse	0.1459	0.1516
Telephone	0.0390	0.0188
Education	0.0722	0.0657
Employment	0.1114	0.1139

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.



Table A.4: Nominal monthly amounts of each type of social grant, 2000-2021

	Nominal monthly amounts						
	Old age grant	Disability grant	Care dependency grant	War veteran grant	Foster care grant	Child support grant	Grant in aid
2000	540	540	540	558	390	100	100
2001	570	570	570	588	410	110	110
2002	640	640	640	658	460	140	130
2003	700	700	700	718	500	160	150
2004	740	740	740	740	560	170	170
2005	780	780	780	780	590	180	180
2006	820	820	820	838	590	190	180
2007	870	870	870	890	620	200	200
2008	940	940	940	960	650	215	210
2009	1 010	1 010	1 010	1 030	680	240	240
2010	1 080	1 080	1 080	1 100	710	250	250
2011	1 140	1 140	1 140	1 160	740	270	270
2012	1 200	1 200	1 200	1 220	770	280	280
2013	1 260	1 260	1 260	1 280	800	290	290
2014	1 350	1 350	1 350	1 370	830	310	310
2015	1 415	1 415	1 415	1 435	860	330	330
2016	1 505	1 505	1 505	1 525	890	360	N/A
2017	1 600	1 600	1 600	1 620	920	380	N/A
2018	1 690	1 690	1 690	1 720	960	400	N/A
2019	1 780	1 780	1 780	1 800	1 000	425	N/A
2020	1 860	1 860	1 860	1 880	1 040	445	N/A
2021	1 890	1 890	1 890	1 910	1 050	460	N/A

Source: National Treasury (various years).

Table A.5: Real monthly amounts of each type of social grant, 2000-2021

	Real monthly amounts (2016 Dec prices)						
	Old age grant	Disability grant	Care dependency grant	War veteran grant	Foster care grant	Child support grant	Grant in aid
2000	1 374	1 374	1 374	1 420	992	254	254
2001	1 360	1 360	1 360	1 403	979	263	263
2002	1 425	1 425	1 425	1 465	1 024	312	290
2003	1 431	1 431	1 431	1 468	1 022	327	307
2004	1 507	1 507	1 507	1 507	1 141	346	346
2005	1 538	1 538	1 538	1 538	1 164	355	355
2006	1 565	1 565	1 565	1 599	1 126	363	344
2007	1 551	1 551	1 551	1 586	1 105	357	357
2008	1 509	1 509	1 509	1 541	1 043	345	337
2009	1 503	1 503	1 503	1 533	1 012	357	357
2010	1 534	1 534	1 534	1 563	1 009	355	355
2011	1 551	1 551	1 551	1 578	1 007	367	367
2012	1 540	1 540	1 540	1 566	988	359	359
2013	1 527	1 527	1 527	1 552	970	352	352
2014	1 541	1 541	1 541	1 564	947	354	354
2015	1 546	1 546	1 546	1 568	940	361	361
2016	1 548	1 548	1 548	1 569	916	370	N/A
2017	1 563	1 563	1 563	1 582	898	371	N/A
2018	1 579	1 579	1 579	1 607	897	374	N/A
2019	1 594	1 594	1 594	1 611	895	380	N/A
2020	1 617	1 617	1 617	1 635	904	387	N/A
2021	1 574	1 574	1 574	1 590	874	383	N/A

Source: National Treasury (various years).

Table A.6: Money-metric poverty gap ratios, with and without social grants

	2008/2009		2014/2015	
	With grants	Without grants	With grants	Without grants
<u>All</u>				
All	0.1629	0.2876	0.1041	0.2094
<u>Gender of head</u>				
Male	0.1283	0.2148	0.0784	0.1461
Female	0.2141	0.3977	0.1406	0.2991
<u>Race of head</u>				
African	0.1909	0.3361	0.1238	0.2437
Coloured	0.0806	0.1700	0.0498	0.1292
Indian	0.0539	0.1255	0.0091	0.0387
White	0.0661	0.0997	0.0075	0.0318
<u>Age of head</u>				
0-14 years	0.3133	0.5198	0.4571	0.4571
15-24 years	0.2224	0.2693	0.1784	0.2194
25-34 years	0.1430	0.1925	0.1157	0.1647
35-44 years	0.1521	0.2217	0.0990	0.1603
45-54 years	0.1721	0.2574	0.1099	0.1799
55-64 years	0.1745	0.3441	0.0892	0.2461
65+ years	0.1587	0.5468	0.0631	0.3681
<u>Province</u>				
Western Cape	0.0817	0.1308	0.0491	0.0971
Eastern Cape	0.1954	0.3966	0.1505	0.3304
Northern Cape	0.1905	0.3768	0.1284	0.2793
Free State	0.1585	0.3086	0.0961	0.2261
KwaZulu-Natal	0.1997	0.3449	0.1237	0.2591
North West	0.1607	0.3046	0.1227	0.2571
Gauteng	0.1162	0.1762	0.0672	0.1146
Mpumalanga	0.1811	0.3089	0.1191	0.2220
Limpopo	0.2508	0.4439	0.1697	0.3411
<u>Area type</u>				
Urban	0.1161	0.1958	0.0736	0.1371
Rural	0.2615	0.4815	0.1759	0.3792
<u>Education of head</u>				
Primary	0.2377	0.4560	0.1549	0.3752
Secondary	0.1665	0.2665	0.1252	0.2243
Matric	0.0926	0.1233	0.0628	0.0916
Matric + Cert ./ Dip.	0.0687	0.0904	0.0246	0.0358
Degree	0.0452	0.0543	0.0104	0.0126
<u>Employment status of head</u>				
Unemployed/ Inactive	0.2610	0.5178	0.1953	0.4328
Employed	0.0939	0.1260	0.0491	0.0744

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Table A.7: Money-metric squared poverty gap ratios, with and without social grants

	2008/2009		2014/2015	
	With grants	Without grants	With grants	Without grants
<u>All</u>				
All	0.1087	0.2413	0.0621	0.1626
<u>Gender of head</u>				
Male	0.0901	0.1794	0.0488	0.1101
Female	0.1369	0.3349	0.0809	0.2372
<u>Race of head</u>				
African	0.1237	0.2800	0.0737	0.1889
Coloured	0.0561	0.1393	0.0297	0.0991
Indian	0.0455	0.1132	0.0056	0.0298
White	0.0639	0.0963	0.0053	0.0283
<u>Age of head</u>				
0-14 years	0.2107	0.4276	0.3297	0.3297
15-24 years	0.1549	0.2064	0.1110	0.1546
25-34 years	0.0995	0.1522	0.0745	0.1279
35-44 years	0.1028	0.1768	0.0602	0.1216
45-54 years	0.1179	0.2093	0.0664	0.1360
55-64 years	0.1144	0.2967	0.0485	0.1944
65+ years	0.0933	0.4995	0.0282	0.3014
<u>Province</u>				
Western Cape	0.0627	0.1072	0.0324	0.0740
Eastern Cape	0.1192	0.3378	0.0836	0.2591
Northern Cape	0.1263	0.3194	0.0803	0.2210
Free State	0.0979	0.2438	0.0534	0.1648
KwaZulu-Natal	0.1336	0.2952	0.0719	0.2052
North West	0.1045	0.2551	0.0711	0.1951
Gauteng	0.0873	0.1490	0.0437	0.0871
Mpumalanga	0.1146	0.2495	0.0703	0.1702
Limpopo	0.1597	0.3714	0.1007	0.2701
<u>Area type</u>				
Urban	0.0816	0.1626	0.0462	0.1041
Rural	0.1651	0.4075	0.0995	0.3002
<u>Education of head</u>				
Primary	0.1507	0.3836	0.0892	0.2952
Secondary	0.1103	0.2140	0.0750	0.1702
Matric	0.0720	0.1041	0.0407	0.0688
Matric + Cert ./ Dip.	0.0586	0.0807	0.0157	0.0263
Degree	0.0435	0.0517	0.0072	0.0092
<u>Employment status of head</u>				
Unemployed/ Inactive	0.1735	0.4552	0.1205	0.3550
Employed	0.0633	0.0912	0.0268	0.0465

Source: Own calculations using the LCS 2008/2009 and 2014/2015 data.

Table A.8: Probit regressions on money-metric poverty likelihood (coefficients)

	LCS 2008/2009			LCS 2014/2015		
	[I]	[II]	[III]	[I]	[II]	[III]
Gender: Female	0.1715***	0.1605***	0.1756***	0.1625***	0.1264***	0.1678***
Race Coloured	-0.4039***	-0.3465***	-0.4060***	-0.4861***	-0.4755***	-0.4868***
Race: Indian	-0.5626***	-0.4892***	-0.5684***	-0.9851***	-0.8952***	-0.9908***
Race: White	-0.1134*	-0.1259**	-0.1201**	-0.6702***	-0.6437***	-0.3779***
Age: 15-24 years	0.42511	0.2427	0.4261	0.3733	0.3230	0.3903
Age: 25-34 years	0.2142	0.0144	0.2185	0.1624	0.0969	0.1821
Age: 35-44 years	0.1046	-0.0821	0.1075	-0.0377	-0.0954	-0.0177
Age: 45-54 years	0.0396	-0.1245	0.0426	-0.1939	-0.2222	-0.1748
Age: 55-64 years	-0.1138	-0.2274	-0.1134	-0.4277	-0.4008	-0.4110
Age: 65+ years	-0.3562	-0.3572	-0.3532	-0.6222	-0.5516	-0.6074
Province: Eastern Cape	0.2317***	0.2387***	0.2339***	0.2755***	0.2795***	0.2762***
Province: Northern Cape	0.3613***	0.3723***	0.3640***	0.2156***	0.2393***	0.2171***
Province: Free State	0.2991***	0.3057***	0.3022***	0.0992	0.1011	0.1014
Province: KwaZulu-Natal	0.1725***	0.1824***	0.1745***	0.0623	0.0756	0.0637
Province: North West	0.0557	0.0592	0.0575	0.0619	0.0637	0.0621
Province: Gauteng	0.1557***	0.1595***	0.1563***	-0.0211	-0.0368	-0.0221
Province: Mpumalanga	0.0889	0.0806	0.0899	-0.0471	-0.0706	-0.0477
Province: Limpopo	0.2807***	0.2622***	0.2839***	0.0917	0.0723	0.0911
Area type: Rural	0.3374***	0.3371***	0.3372***	0.2848***	0.2813***	0.2863***
Education years	0.0175*	0.0051	0.0175*	0.0173	0.0074	0.0178
Education years squared	-0.0062***	-0.0055***	-0.0062***	-0.0061***	-0.0066***	-0.0071***
Employed	-0.6949***	-0.7398***	-0.6991***	-0.9642***	-1.0265***	-0.9688***
Number of children	0.2279***	0.1915***	0.2326***	0.0241***	0.2120***	0.2451***
Number of males 15-59 years	0.0856***	0.0995***	0.0864***	0.0714***	0.0821***	0.0721***
Number of females 15-59 years	0.0767***	0.0726***	0.0806***	0.0201	0.0141	0.0263
Number of elderly 60+ years	-0.1227***	-0.0145	-0.1097***	-0.5115***	-0.3901***	-0.4942
Receipt: Old-age grant		-0.4042***			-0.3056***	
Receipt: Disability grant		-0.3619***			-0.6118***	
Receipt: Child grant		0.2741***			0.2624***	
Receipt: Dependency grant		-0.2155			-0.4664***	
Receipt: Foster care grant		-0.1232			-0.1978***	
Receipt: Grant in aid		-0.1563			-0.4268	
Receipt: War veteran grant		-0.3955			N/A	
Number of members receiving at least one social grant			-0.2250			-0.0244
Number of observations	24 747	24 747	24 747	23 292	23 292	23 292
Chi-squared statistics	3 844.28	4 086.38	3 840.38	3 207.58	3 365.93	3 210.22
Probability > Chi-squared statistic	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R-squared	0.2571	0.2676	0.2572	0.2946	0.3088	0.2946

*** Significant at 1%

** Significant at 5%

* Significant at 10%

Table A.9: Probit regressions on non-money-metric poverty likelihood (coefficients)

	LCS 2008/2009			LCS 2014/2015		
	[I]	[II]	[III]	[I]	[II]	[III]
Gender: Female	-0.0695***	-0.0874***	-0.0814***	-0.0790***	-0.1038***	-0.0927***
Race Coloured	-0.9705***	-0.9550***	-0.9667***	-0.8531***	-0.8567***	-0.8583***
Race: Indian	-1.6237***	-1.6044***	-1.6157***	-1.3746***	-1.3520***	-1.3737***
Race: White	-1.7382***	-1.7324***	-1.7206***	-1.0893***	-1.0565***	-1.0621***
Age: 15-24 years	0.4285	0.3774	0.4345	-3.5151***	-3.5591***	-3.4941***
Age: 25-34 years	0.2859	0.2221	0.2859	-3.6158***	-3.6768***	-3.6055***
Age: 35-44 years	-0.0072***	-0.0675***	-0.0048***	-3.6379***	-3.7000***	-3.6264***
Age: 45-54 years	-0.2602***	-0.3075***	-0.2573***	-3.8789***	-3.9314***	-3.8628***
Age: 55-64 years	-0.3378***	-0.3705***	-0.3271***	-3.9893***	-4.0374***	-3.9631***
Age: 65+ years	-0.4447***	-0.4554***	-0.4425***	-4.1002***	-4.1491***	-4.0732***
Province: Eastern Cape	0.6158	0.6099	0.6121	0.7213	0.7213	0.7191
Province: Northern Cape	0.0631*	0.0612*	0.0584*	0.1436	0.1406	0.1406
Province: Free State	-0.1182***	-0.1264***	-0.1207***	-0.1587***	-0.1631***	-0.1639***
Province: KwaZulu-Natal	0.2160	0.2157	0.2139	0.4179	0.4221	0.4161
Province: North West	-0.1866***	-0.1881***	-0.1891***	-0.2734***	-0.2694***	-0.2747***
Province: Gauteng	0.1662	0.1673	0.1679	0.1331	0.1409	0.1390
Province: Mpumalanga	0.0779	0.0735	0.0761	0.1361	0.1407	0.1398
Province: Limpopo	0.3626	0.3505	0.3566	0.4201	0.4238	0.4215
Area type: Rural	1.5889	1.5905	1.5915	1.7209	1.7174	1.7187
Education years	-0.0191***	-0.0220***	-0.0195***	-0.0256***	-0.0283***	-0.0271***
Education years squared	-0.0076***	-0.0073***	-0.0074***	-0.0066***	-0.0063***	-0.0063***
Employed	-0.6363***	-0.6356***	-0.6261***	-0.8159***	-0.8046***	-0.8017***
Number of children	0.4817	0.0259	0.0354	0.0481	0.0305	0.0341
Number of males 15-59 years	-0.0376***	-0.0349***	-0.0392***	-0.0504***	-0.0534***	-0.0555***
Number of females 15-59 years	-0.0469***	-0.0561***	-0.0579***	-0.0791***	-0.0951***	-0.1017***
Number of elderly 60+ years	0.0018***	0.0130**	-0.0355***	-0.1304***	-0.1502***	-0.1872***
Receipt: Old-age grant		-0.0500***			0.0475*	
Receipt: Disability grant		-0.0331***			0.0335**	
Receipt: Child grant		0.1437			0.1298	
Receipt: Dependency grant		0.3114			-0.0275***	
Receipt: Foster care grant		-0.0278***			0.0300**	
Receipt: Grant in aid		-0.3182***			-0.0678***	
Receipt: War veteran grant		0.4158			N/A	
Number of members receiving at least one social grant			0.0609*			0.0779*
Number of observations	24 747	24 747	24 747	23 292	23 292	23 292
Chi-squared statistics	6 307.57	6 348.92	6 320.02	15 514.36	15 533.83	15 528.42
Probability > Chi-squared statistic	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R-squared	0.4914	0.4925	0.4918	0.5172	0.5179	0.5177

*** Significant at 1%

** Significant at 5%

* Significant at 10%

Table A.10: Supplementary Probit regressions on money-metric poverty likelihood (marginal effects)

	LCS 2008/2009							
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
Receipt: Old-age grant	0.1063							
Receipt: Disability grant		0.1009						
Receipt: Child grant			0.3565					
Receipt: Dependency grant				0.1022				
Receipt: Foster care grant					0.1696			
Receipt: Grant in aid						0.0635*		
Receipt: War veteran grant							-0.1132***	
Number of members receiving at least one social grant								0.2817
Number of observations	25 075	25 075	25 075	25 075	25 075	25 075	25 075	25 075
Chi-squared statistics	146.84	64.97	2200.40	5.22	38.48	0.55	0.94	1593.38
Probability > Chi-squared statistic	0.0000	0.0000	0.0000	0.0224	0.0000	0.4591	0.3321	0.0000
Pseudo R-squared	0.0056	0.0024	0.0968	0.0002	0.0015	0.0000	0.0000	0.0727
	LCS 2014/2015							
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
Receipt: Old-age grant	0.0086***							
Receipt: Disability grant		0.0333***						
Receipt: Child grant			0.2857					
Receipt: Dependency grant				0.0852*				
Receipt: Foster care grant					0.1627			
Receipt: Grant in aid						-0.0632***		
Receipt: War veteran grant							N/A	
Number of members receiving at least one social grant								0.2067
Number of observations	23 380	23 380	23 380	23 380	23 380	23 380	23 380	23 380
Chi-squared statistics	1.39	8.17	1565.22	4.72	46.01	0.55	0.00	897.93
Probability > Chi-squared statistic	0.2392	0.0042	0.0000	0.0297	0.0000	0.4597	N/A	0.0000
Pseudo R-squared	0.0001	0.0004	0.0901	0.0002	0.0018	0.0000	0.0000	0.0549

*** Significant at 1%

** Significant at 5%

* Significant at 10%

Table A.11: Supplementary Probit regressions on non-money-metric poverty likelihood (marginal effects)

	LCS 2008/2009							
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
Receipt: Old-age grant	0.2124							
Receipt: Disability grant		0.1571						
Receipt: Child grant			0.2743					
Receipt: Dependency grant				0.2055				
Receipt: Foster care grant					0.1412			
Receipt: Grant in aid						0.0899*		
Receipt: War veteran grant							-0.0902***	
Number of members receiving at least one social grant								0.2718
Number of observations	25 075	25 075	25 075	25 075	25 075	25 075	25 075	25 075
Chi-squared statistics	521.24	149.36	1279.20	18.94	26.04	1.13	0.53	1433.12
Probability > Chi-squared statistic	0.0000	0.0000	0.0000	0.0000	0.0000	0.2874	0.4659	0.0000
Pseudo R-squared	0.0206	0.0053	0.0535	0.0007	0.0010	0.0000	0.0000	0.0625
	LCS 2014/2015							
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
Receipt: Old-age grant	0.1882							
Receipt: Disability grant		0.1569						
Receipt: Child grant			0.2022					
Receipt: Dependency grant				0.1817				
Receipt: Foster care grant					0.1903			
Receipt: Grant in aid						0.0741*		
Receipt: War veteran grant							N/A	
Number of members receiving at least one social grant								0.2250
Number of observations	23 380	23 380	23 380	23 380	23 380	23 380	23 380	23 380
Chi-squared statistics	529.44	155.52	774.32	20.40	58.42	0.54	0.00	1 000.75
Probability > Chi-squared statistic	0.0000	0.0000	0.0000	0.0000	0.0000	0.4637	N/A	0.0000
Pseudo R-squared	0.0197	0.0063	0.0377	0.0008	0.0021	0.0000	0.0000	0.0536

*** Significant at 1%

** Significant at 5%

* Significant at 10%