

**FACTORS ASSOCIATED WITH SOCIAL GRANT UPTAKE IN SOUTH AFRICA: A
CLOSER LOOK AT THE SPECIAL COVID-19 SOCIAL RELIEF OF DISTRESS
GRANT AMONG THE YOUTH AGED 18 – 35 YEARS.**



**BY: MOYAHABO THOMAS MABALA
STUDENT NUMBER: 1918464**

**SUPERVISED BY: DR. MOTLATSO GODONGWANA
CO-SUPERVISOR: PROF NICOLE DE WET-BILLINGS**

A RESEARCH REPORT SUBMITTED TO THE UNIVERSITY OF THE
WITWATERSRAND, FACULTY OF HUMANITIES, SCHOOL OF SOCIAL SCIENCES,
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN THE FIELD OF DEMOGRAPHY AND POPULATION STUDIES.

March 2023

Declaration

I, Moyahabo Thomas Mabala, declare that this research report is my original work. This report is submitted to the Faculty of Humanities, School of Social Sciences in partial fulfilment of the requirements of the Master of Arts in Demography and Population Studies. To the best of my knowledge, this research report has not been submitted before for any degree or examination at this or any other university.

Candidate's Name: Moyahabo Thomas Mabala

Signature: 

Date: 11 March 2023

Acknowledgements

Firstly, I would like to thank Almighty God for being with me through this journey and giving me the strength to continue when it seemed difficult. Secondly, I would also like to extend our sincere gratitude to my supervisor Doctor Motlatso Godongwana and co-supervisor Prof. Nicole De Wet-Billings for their support, encouragement, and invaluable contributions to this research report. Thirdly, a big thank you to the Demography and Population Studies (DPS) family, it was through our discussions and research update meetings that I was able to give this research a well-defined direction.

Lastly, a special appreciation to my family for the support and prayers that kept me going. Their support inspired me to never give up but rather do my level best. A big thank you to the Mabala Legacy.

Contents

Declaration.....	i
Acknowledgements.....	ii
List Of Tables	v
List Of Figures	vi
Abbreviations.....	vii
Abstract.....	viii
Chapter 1: Introduction.....	1
1.1. Background	1
1.2 Problem Statement	3
1.3 Research question and sub-questions:.....	5
1.4 Research objective and sub-objectives.....	5
1.5 Justification.....	6
Chapter 2: Literature Review and Theoretical Framework.....	8
2.1 Literature Review.....	8
2.2 Theoretical frameworks of the study	10
2.3 Conceptual framework for the study.....	12
2.4 Research Hypotheses	13
Chapter 3: Methodology.....	14
3.1 Study Area	14
3.2 Study design and data source	14
3.3 Study population and sample size	14
3.4 Variables.....	15
3.4.1 Outcome/ dependent variable.....	15
3.4.2 Independent Variables.....	16
3.4 Data Analysis Plan.....	20
3.5 Ethics.....	22
Chapter 4: Results	23

4.1 Descriptive Statistics Results.....	23
4.2 Test for Goodness-of-fit	49
4.3 Test for Multicollinearity.....	49
4.3.1 Pairwise Correlation.....	49
4.3.2 Variance Inflation Factor (VIF)	49
Chapter 5: Discussion.....	50
CHAPTER 6: CONCLUSIONS, RECOMMENDATIONS AND POLICY IMPLICATIONS	57
6.1. Conclusion.....	57
6.3. Recommendations	60
6.4. Contribution to Existing Policy, Programme Implications and Future Research	61
References.....	62
Appendix	71
8.1 Hosmer and Lemeshow’s test output.....	71
8.2 Correlation Coefficient Matrix Output.....	72
8.3 Variance Inflation Factor (VIF) Output.....	73
8.3 Turnitin Report Summary	74

List Of Tables

Table 1: Dependent variable categorisation.....	15
Table 2: Independent variables to be used in this study.....	16
Table 3: Distribution of the youth aged 18-35 who take up the special COVID-19 SRD Grant by demographic, social, and household characteristics.	25
Table 4: Chi-Square distribution of Demographic, socio-economic, and Household Characteristics among the youth aged 18 - 35 taking up the Special COVID-19 SRD Grant.....	28
Table 5: Unadjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characterises in South Africa	32
Table 6: Model 1 Adjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characteristics in South Africa	36
Table 7: Model 2 Adjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characteristics in South Africa	40
Table 8: Model 3 Adjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characteristics in South Africa	43
Table 9: Model 4 Adjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characteristics in South Africa	46
Table 10; Hosmer and Lemeshow's test.....	71
Table 11: Correlation Coefficient matrix.....	72
Table 12: Variance Inflation Factor (VIF) output.....	73

List Of Figures

Figure 1: Sustainable livelihoods framework	11
Figure 2: Conceptual framework, adapted from Sustainable Livelihood Framework.....	12
Figure 3:COVID-19 Social Relief of Distress grant receipt Application status per age group	23
Figure 4: Pie chart showing the number of Special COVID-19 SRD Grants received among successful applicants.	24

Abbreviations

BIG	Basic Income Grant
COVID-19	Coronavirus Disease of 2019
CCT	Conditional Cash Transfers
CSG	Child Support Grant
DSD	Department of Social Development
EPWP	Extended Public Works Programme
UIF	Unemployment Insurance Fund
NIDS-CRAM	National Income Dynamic Survey – Coronavirus Rapid Mobile Survey
SASSA	South African Social Security Agency
SCSRDG	Special COVID-19 Social Relief of Distress Grant
UCT	Unconditional Cash Transfers

Abstract

Background: Globally nearly 900 million people benefited from social assistance in 2017, most of them in the form of cash transfers, which accounts for 44% of the social assistance budget. During the same period, Sub-Saharan Africa was found to be far behind in terms of social assistance coverage, of those living in extreme poverty it is estimated that only 15% of them are receiving social assistance. In South Africa, with a population of 60 million people, it is estimated that 11.4 million of them received some sort of grant at the end of March 2021. When the Special COVID-19 Social Relief of Distress Grant (SCSRDG) was introduced, it received over 9.5 million applications of which only 6.5 million were approved with the youth aged 18 – 34 accounting for 70% of the applicants. As a result of the high number of applicants for the SCSRDG, this study wanted to gain an understanding of the profiles of the applicants.

Objective: To explore the demographic, socio-economic, and household factors associated with the uptake of the Special COVID-19 Social Relief of Distress Grant (SCSRDG) among the youth aged 18 – 35 years in South Africa

Methodology: This study is a quantitative analysis of secondary data obtained from the National Income Dynamics Study – Coronavirus Rapid Mobile Survey 2020 wave 5. The survey interviewed 7074 youth aged between 18 – 35 years. The outcome variable of this study is the Special COVID-19 Social Relief of Distress Grant (SCSRDG) receipt status. To assess the uptake of the grant, descriptive statistics including tables and graphs were used. The predictor variables consist of demographic, socioeconomic and household characteristics, with age as the main predictor variable. To check for the association between the outcome and predictor variables, binary logistic regression was utilised. Where the odd ratio < 1.00 , meant that the outcome was less likely in the index group when compared to the reference.

Results: Using the weighted data, a total of 3 438 046 applicants who applied for the grants received it while 3 003 320 of them did not receive the grant. Among those who received the grant, the majority 1 223 192 of them are aged between 21- 25 years. Most of the applicants were male representing 63.58%. African/Black is the highest population group that applied

for the grant accounting for 90.66% of the applicants while whites account for the least proportion of the applicants at 0.88%. For both that received and did not receive the grant, the African/black population group is the highest when compared to other population groups at 92.93% and 88.07% respectively, while whites are the lowest at 1.31% and 0.40% respectively. Most of the applicants 91.47% were unemployed. A total of 4 994 322 (77.54%) of the applicants reported their dwelling type as formal and 4 891 137 (75.93) reported that they had access to both water and electricity in their household. Most applicants 39.98% come from a household with between 4 – 6 family members. Out of the 14 independent variables included in this study only two variables, marital status, and multiple grants recipients, were statistically significant. Females have a lower likelihood of receiving the grant when compared to males with an odd ratio of 0.6431 and 0.55637 using the unadjusted and adjusted binary regression model, respectively.

Conclusion: This study has found that marital status and multiple grants recipients are the two characteristics that are associated with the uptake of the Special COVID-19 Social Relief of Distress Grant among youth aged 18 – 35 years in South Africa. It found that males as compared to females are more likely to receive the SRD grant, this is because of the initial qualifying criteria that excluded a high number of females that were already receiving the Child Support Grant. This criterion was later changed to say that an applicant of the SCSRDG must not be entitled to a social grant for himself or herself.

Keywords: COVID-19, Unemployment, Social Grants, Youth, South Africa

Chapter 1: Introduction

1.1. Background

Globally nearly 900 million people benefited from social assistance in 2017, it is also estimated that 61% of the total budget of the social protection and labour measures goes to social assistance programmes (Gentilini et al., 2022; Hickey et al., 2018). In 2021 a total budget of \$3 trillion was set aside for these interventions globally, with the United States accounting for most of the spending at 64% (Gentilini et al., 2022). The three types of social assistance offered included cash transfers, utility & financial obligation support and in-kind transfers. Cash transfers¹ which account for 44% of the social assistance budget are the most utilised method of intervention followed by the utility and financial obligation support², and lastly in-kind³ transfers at 33% and 21% respectively on average in over 200 countries (Gentilini et al., 2022).

In recent years Sub-Saharan Africa has seen a growth in social assistance programmes, however, in 2017 when compared with other developed countries, Sub-Saharan Africa was far behind in terms of social assistance coverage (Hickey et al., 2018). Where social assistance coverage refers to the number of people on social assistance compared to those who need social assistance but are not on any social assistance programme. Only 15% of the people who are living in extreme poverty in the Sub-Saharan Africa region are receiving social assistance (Hickey et al., 2018). There are huge disparities when it comes to spending per capita, with high-income countries spending as much as 90 times higher than low-income countries (Gentilini et al., 2022). South Africa has the highest social assistance coverage, covering 48% of the population, in the sub-Saharan Africa region (Hickey et al., 2018).

Out of a total population of 60 million in South Africa, an estimated 11.4 million people received some sort of grant for the financial year ending in February 2021 (Parliament, 2021).

¹ Social Cash Transfers are conditional or unconditional regular payments of money made to incapacitated individuals and households at no cost.

² Utility and financial obligation support refers to utility bill assistance for low-income people

³ In-kind transfers are goods and services provided to individuals or households by the government and non-profit institutions

During that financial year, the government's total spending on grants was just over 218 billion Rands, with Child Support Grant accounting for the largest portion of the spending at 39% followed by Old Age Grant (37%), Disability Grant (11%), Special COVID-19 Social Relief of Distress Grant (9%), Foster Care Grant (2%), Care-Dependent Child (1.6%), and War Veteran Grant & Grant in Aid (0.6%) (Parliament, 2021).

The SCSR DG was introduced in May 2020 and was expected to last for 6 months, that is until October 2020, however, the grant was extended in November for 2 months and again in February 2021 for another 3 months. When it was introduced, it was meant to assist the millions of South Africans who suffered the loss of jobs and income during the National Lockdown (Department of Social Development, 2021). The grant followed a paperless application system which made it inaccessible and exclusionary, especially for those without smartphones and internet access, as a result, those who reside in rural areas experienced far more challenges in accessing the grant as compared to those who reside in urban areas (Senona et al,2021).

The grant was administered under the Disaster Management Act 57 of 2002 when it was introduced, with the uplifting of the National state of disaster on 04 April 2022 this meant that the grant was to be administered under the SASSA Act 9 of 2004 regulations going forward. The shift in the administration of the grant was accompanied by a national call to have the grant as a Basic Income Grant (BIG) going forward. A rapid assessment of the implementation and utilisation of the first phase of the SCSR DG commissioned by the Department of Social Development together with the South African Social Security Agency shows that out of 9.5 million received applications, only 6.5million were approved, with males accounting for 68 percent of the approved applications as compared to 32 percent of females (Department of Social Development, 2021).

The low number of approved SCSR DG applications among females is attributed to the qualifying criteria used during the application process which disqualified a high number of females from applying as they were receiving the Child Support Grant (Department of Social Development, 2021). One of the initial qualifying criteria was that the applicant should not have any income or be receiving any of the other social assistance, this meant that those that are receiving other grants like the Child Support Grant, mostly women, were disqualified from applying for the SCSR DG (Department of Social Development, 2021). The above qualifying criterion was later changed to say that an applicant of the SCSR DG must not be

entitled to a social grant for himself or herself. The assessment also found that the majority (22.9%) of the applicants were aged 20 – 24 years, with Gauteng and KwaZulu-Natal having the highest number of applicants at 21.4% and 21.1% respectively (Department of Social Development, 2021). Most of the applicants (49.8%) have completed matric, while only 4.7% of the applicants indicated that they were employed full-time before the COVID-19 pandemic (Department of Social Development, 2021).

1.2 Problem Statement

In 2021 it was estimated that 9.2% of the global population was living in extreme poverty (World Vision, 2021). Since 2020, this number has increased by 97 million due to COVID-19 and its effects on the economy, making the Sustainable Development Goal by the United Nations of eradicating poverty by 2030 unattainable (World Vision, 2021; United Nations, 2022a). As a responsive measure to the COVID-19 pandemic, most countries made an effort to implement temporal social protection measures for people with little or no income, however, only an estimated 47% of the global population was effectively covered by at least one of the cash benefit temporal social protection measures, leaving out about 4.1 billion people (United Nations, 2022a). In Sub-Saharan Africa, only 4.9% of the unemployed population benefited from the temporal social protection measures (United Nations, 2022).

South Africa faces a great challenge in addressing poverty, inequality, and unemployment, with an estimated unemployment rate of 34.9% and 55.5% of the population living in poverty (South African Government, 2012; Statistics South Africa, 2022a; Statistics South Africa, 2018). Although Social assistance is one of the most effective programmes aimed at assisting the poor in the country, the high number of people living in poverty shows that there is some work that needs to be done to strengthen social assistance programmes in the country. The SCSRG of an amount of R350 per month in the country was not the perfect solution to deal with the devastating effects of the Coronavirus during and post the pandemic (Senona et al.,2021). The amount of R350 was however not linked to any objective measure to reduce poverty and fell below one of the common measures of poverty known as the food poverty line of R624 per person per month (Senona et al,2021, Statistics South Africa, 2021).

Among the drivers of poverty, loss of income is one of the major drivers. During the national coronavirus lockdown as high as 40% of young adults lost their main source of income (Wills et al., 2023). It was during this very same period were food security indicators sparked to their highest with an estimated 47% of people running out of money to buy basic food (Wills et al., 2023). The problem is further compounded by the rising cost of living which includes an increase in the prices of food, petrol, and electricity (Wills et al., 2023). Unemployment is a problem, for all working age groups in the country with the youth being the most affected, it is strongly correlated with crimes such as gender-based violence, burglary and alcohol and drug abuse (Adaiah et al., 2017). If the issue of unemployment in the country is not addressed through proper channels it could have unintended consequences such as humanitarian crisis and social-political instability (Wills et al., 2023).

Income poverty has a direct link to access to basic human rights, which include rights to nutrition, education, and health care, it is estimated that 64% of children in South Africa live in income-poverty households, that is households that live below the poverty line (Hall & Sambu, 2018.) Income poverty is a legacy of the Apartheid system that introduced a socioeconomic distortion, under the apartheid system the African aged received their old age grants every second month while their white counterpart received them monthly (South African Government, 2012). It is estimated that nearly 71% of African children dwell in income-poverty households as compared to only 4% of the white population children (Hall & Sambu, 2018).

Despite government spending on various types of social grants, poverty among the youth in South Africa is on the rise (Statistics South Africa, 2017). Economic theory suggests that the uptake of social grants may undermine labour force participation, by reducing the opportunity cost of not working and making social grant recipients more dependent on grants, studies have found that social assistance especially in the form of grants equips recipients with the necessary resources and economic security for job searching (SARPN - South Africa, 2020, Ncube et al., 2014). When receiving a grant people can apply for jobs and in some instances even start a business to supplement the grant. Apart from unemployment, not much information is available about the demographic, socio-economic and household characteristics of those accessing the SCSRDP among the youth in South Africa. Moreover, this study shall contribute to the literature and body of knowledge on social grants in South Africa as well as provide recommendations on the development of a BIG going forward.

1.3 Research question and sub-questions:

Main Research Question

What is the association of demographic, socio-economic, and household factors with the uptake of the Special COVID-19 Social Relief of Distress Grant among the youth aged 18 – 35 years in South Africa?

Sub-Questions:

Sub-Question 1: What are the levels of the Special COVID-19 Social Relief of Distress Grant uptake among the youth aged 18 – 35 years in South Africa?

Sub-Question 2: What are the demographic, socio-economic, and household characteristics among the youth aged 18 -35 years in South Africa taking up the Special COVID-19 Social Relief of Distress Grant?

Sub-Question 3: What is the association of the demographic, socio-economic, and household characteristics with the uptake of the Special COVID-19 Social Relief of Distress Grant among the youth aged 18 -35 years in South Africa?

1.4 Research objective and sub-objectives

Main Research objective

To explore the association of demographic, socio-economic, and household characteristics with the uptake of the Special COVID-19 Social Relief of Distress Grant among the youth aged 18 -35 years in South Africa

Sub-objectives:

Sub-objective 1: To determine the levels of the Special COVID-19 Social Relief of Distress Grant uptake among the youth aged 18 – 35 years in South Africa.

Sub-objective 2: To describe the demographic, socio-economic, and household characteristics among the youth aged 18 -35 years in South Africa taking up the Special COVID-19 Social Relief of Distress Grant.

Sub-objective 3: To explore the association of the demographic, socio-economic, and household characteristics with the uptake of the Special COVID-19 Social Relief of Distress Grant among the youth aged 18 -35 years in South Africa

1.5 Justification

Poverty is a global problem and some of its causes include unemployment, social exclusion and vulnerability (United Nations, 2021). The COVID-19 pandemic has managed to push back at least 70 million vulnerable people into extreme poverty, those surviving on \$1.90 or less a day (The World Bank, 2022). At a global level in dealing with the problem of poverty, the United Nations through the Sustainable Development Goals has set a target to eradicate extreme poverty by 2030 (United Nations, 2021). South Africa as a United Nations state member is also aiming to eliminate poverty through its National Development Plan 2030 of growing an inclusive economy (South African Government, 2012.).

Section 27 of the constitution of the Republic of South Africa, states that everyone has the right to have access to social security, including, if they are unable to support themselves and their dependents, appropriate social assistance (Department of Justice and Constitutional Development 2015). The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights (Department of Justice and Constitutional Development, 2015). Most of the Government Social grants, like the Child Support Grant, Old Age Grant, Disability Grant, Foster Care Grant, Care Dependent Child Grant, War Veteran Grant, and Grant in Aid, have always been towards vulnerable groups which include children, the aged and people with disabilities, less on the unemployed and underemployed population (Department of Social Development, 2021).

The introduction of the SCSRDG saw more uptake among the youth, accounting for 70% of the total applicants (Department of Social Development, 2021). Some of the contributing

factors to the high number of youth applicants include the high unemployment rate of 46.3% and a poverty rate of 36.7% among the youth (Statistics South Africa, 2021a; Statistics South Africa, 2017). A well-designed social protection system enables beneficiaries to move out of temporary government assistance to full-time work, however, when the system is poorly designed beneficiaries get stuck in a cycle of dependency. This study explored the profile of the characteristics of the youth population aged 18 -35 years accessing the Special COVID-19 SRD grant to gain a better understanding of their needs.

The understanding of these characteristics will assist the government in responding correctly to the high levels of poverty and unemployment among the youth. The profile of the characteristics of the SCSR DG will assist the government in designing programmes that will ensure that beneficiaries can move out of social assistance grants and provide for themselves independently. This profile is meant to assist the government in developing and implementing programmes that are focused on the unemployed youth in the country, such as the development and implementation of the basic income grant.

Chapter 2: Literature Review and Theoretical Framework

2.1 Literature Review

Globally, there has been a great improvement in the number of people living in extreme poverty, a decrease from 36% in 1990 to just below 10% in 2015, however, the rate of decline has been slow between 2015 and now and there is a great risk of the coronavirus pandemic reversing the progress already made (United Nations, 2022). Loss of income is one of the key drivers that is leading poor families to fall deeper into poverty, it is estimated that at least 25 million jobs could be lost because of the pandemic (UNSDG, 2021). Sustainable Development Goal 1 is centred around a target of ending poverty by 2030, however, it is estimated that COVID-19 poses a real threat to this goal, because of the economic fallout global poverty is estimated for the first time in thirty years to increase by as high as 8% (UNU-WIDER, 2020).

In many countries across the world, social protection or assistance is a means-tested benefit for a short period of time that is only meant for those who are unable to provide for themselves (Heggebø et al., 2020). Although it is meant to be a temporary assistance for a short period of time it has been found that there are individuals who receive social assistance for a prolonged period and that there is a high probability that someone who has previously benefited from social assistance will do so in the future (Heggebø et al., 2020). In countries such as Norway and Sweden, the average duration that an individual is on social assistance is 3 – 4 months, and any period above 6 months is considered a long-term social assistance recipient (Bäckman & Bergmark, 2011).

Many factors can make an individual remain on social assistance from the government for a longer period. One of the common reasons is that being on social assistance for a long period may eventually lead the individual to remain on social assistance for a longer period, this may be a result of the negative impact of social assistance on the choices and behaviour of the recipient (Bäckman & Bergmark, 2011). The exit of an individual from a social assistance programme in a shorter period is an indication of an effective programme. Another reason is low educational attainment, which is associated with a low chance of finding a job and eventually exiting the social assistance programme (Mood, 2013).

Several factors lead one to be on a social assistance programme. A study by Kauppinen and colleagues that looked at the social background and life-course events as determinates of being a social assistant beneficiary among the youth found that moving out of the parent's home early and parents being on social assistance increases the individual likelihood of being on a social assistance programme (Kauppinen et al., 2014). However, another study by Heggebø and colleagues did not find any statistical association between childhood disadvantages and social ties with social assistance likelihood (Heggebø et al., 2020).

Social assistance in Sub-Saharan Africa is mostly in cash transfer mode, this can either be Conditional Cash Transfers (CCT) or Unconditional Cash Transfers (UCT) (Owusu-Addo et al., 2018). In the case of CCT, there are conditions that encourage positive spending behaviour in the recipient, such as investing a portion of the transfer for the children's education or health care (Baird et al., 2013). While with UCT, there are no restrictions in terms of how the recipient chooses to spend the transfers (Baird et al., 2013).

Neves and colleagues (2009) in a study on social grants in South Africa, found that the Positive outcomes of social grants by far outweighed the negative effects potentially associated with social grants. Furthermore, the study found little to no evidence to support some of the negative effects associated with social grants, such as increasing fertility among the youth, discouraging labour market work, and reckless spending behaviour by the recipient of the grant (Neves et al., 2009). The study found that social protection in the form of social grants empowers the recipient economically and socially, in the sense that the beneficiaries can engage with the credit market and participate in social reciprocity such as stokvels (Neves et al., 2009).

The South African social grant system is well-designed and effective, and not only does it bring the very poor closer to the poverty line but also assists in lifting some out of poverty (Dubihlela & Dubihlela, 2014). However there remain large gaps in the system, especially for the unemployed working-age population group, the system does not cater for this population group (Köhler & Bhorat, 2020). The Child Support Grant account for the largest number of recipients at 71 percent followed by the older person grant and the disability grant respectively (Köhler & Bhorat, 2020). All the grants are for the vulnerable groups that cannot engage in the labour market.

A study by Mackett, 2020, found that individuals who come from grant-receiving households do not stand a higher chance of getting a job and remain unemployed for a longer duration when compared to those who are from non-grant-receiving households (Mackett, 2020). This can be explained by the lack of skills and or education from the individual and again by the lack of services to the household (Mackett, 2020). The study however does not provide a duration of how much longer the individual remains unemployed and the likelihood of them being employed. No distinction is made between males and females that are from grant receiving households.

In a study to investigate social grant payment methods for old age grant recipients in the Western Cape, Dowman found that most of the recipients were under the age of 60 years (Dowman, 2014). When it comes to population groups the study found that 72% of the respondents were coloured, which can be best explained by the high number of the coloured population in the Western Cape (Dowman, 2014). The majority of the respondents 42% were found to be homeowners, with only 2% reported that they were renting (Dowman, 2014.). On the issue of home ownership, it is not explained if the houses were bought or whether they were received as part of the Government housing subsidy programme. The study did not provide any information regarding the portion of the grant that is used for rent.

2.2 Theoretical frameworks of the study

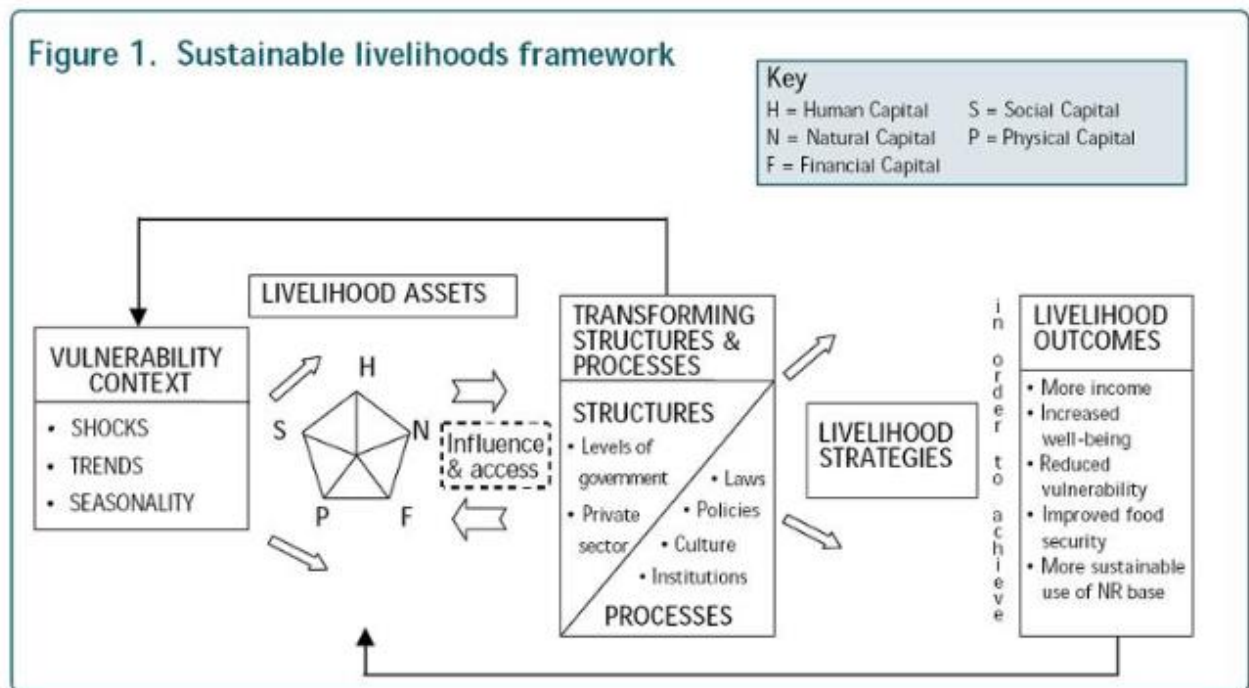
This study used two models, the first one is the theoretical framework: Sustainable livelihood framework and the second one is the conceptual framework which is adapted from the theoretical framework. The sustainable livelihood framework conceptualises holistically the livelihood constraints and opportunities that people experience, these include poverty, socio-economic issues, and food poverty (DFID, 2001). The framework is centred around the 5 different livelihood assets and their interrelationship.

The framework explains the idea that different individuals have different access to livelihood assets, and these include human, social, natural, physical, and financial capital, that they use to achieve their livelihood outcomes (DFID,2001).

- Human assets – individual attributes and skills
- Social assets – social resources that people depend on for a living.
- Natural assets – natural resources that people can draw on for their livelihood.
- Physical assets – basic infrastructure, tools and equipment needed for a livelihood.
- Financial Capital assets – financial resources that people can use to achieve their livelihood objectives.

The vulnerability context includes Shocks, trends, and seasonality, which are the external environment that people do not have control over, and these are considered insecurities in the well-being of an individual (DFID,2001).

Figure 1: Sustainable livelihoods framework



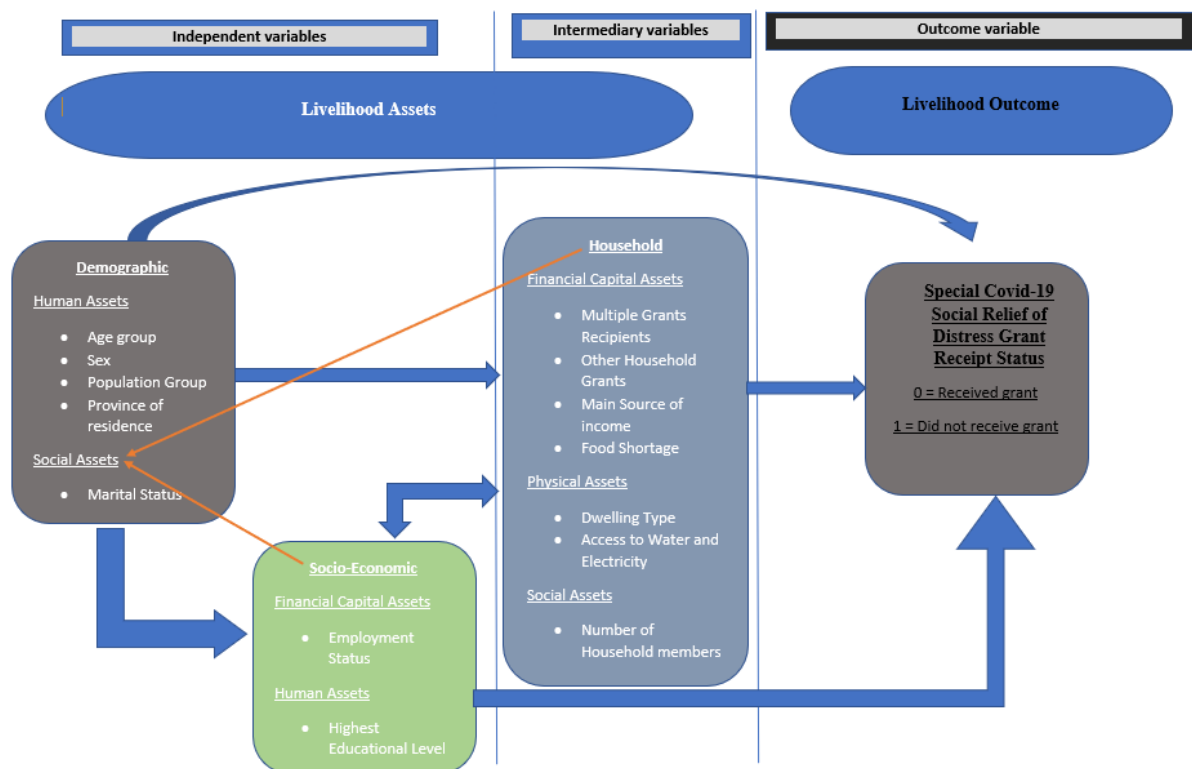
The sustainable livelihoods framework. (Source: DFID, 2001)

These frameworks are relevant to this study as they help provide an understanding of the interaction among the livelihood assets to achieve the livelihood outcomes. In the context of this study, the livelihood outcomes include reduced vulnerability and improved food security. This framework shows how livelihood assets are directly affected by the vulnerability context such as the COVID-19. The COVID-19 pandemic affected how people lived and accessed livelihood assets such as employment. The livelihood assets in return influence structures and processes to develop strategies to improve the livelihood outcomes of the individual. The

structures and process refer to the Government and its legislations, and the strategy that was developed to improve the livelihood of individuals is the SCSR DG.

2.3 Conceptual framework for the study

Figure 2: Conceptual framework, adapted from Sustainable Livelihood Framework



This conceptual framework is adapted from the Sustainable livelihood framework, it shows the interaction between people's livelihood assets to achieve their livelihood outcomes. In adapting this framework, the livelihood assets have been grouped into demographic, socio-economic and household characteristics accordingly. Demographic characteristics are made up of four human assets and one social asset. A further split is applied to the characteristics to indicate the independent variables and the intermediary variables. The independent variables are made up of the demographic and socio-economic characteristics of the individual. While the intermediary variable is their household characteristics.

The independent variables, independently and through the intermediary direct impact and indirect, respectively, on the livelihood outcome of the individual to receive the SCSR DG. The small orange arrows represent a characteristic to asset relationship, while the big blue arrows represent a characteristic to characteristics and/or outcome relationship. All the characteristics independently have a direct impact on the livelihood outcome. Also, through the intermediary characteristics, the independent characteristics have an indirect impact on receiving the SCSR DG.

2.4 Research Hypotheses

This paper tested the following hypotheses.

- H0 (Null): There is no association between demographic, socio-economic, and household factors and the uptake of the Special COVID-19 Social Relief of Distress grant among youth aged 18 – 35 years in South Africa
- H1 (Alternative): There is an association between demographic, socio-economic, and household factors and the uptake of the Special COVID-19 Social Relief of Distress grant among youth aged 18 – 35 years in South Africa

Chapter 3: Methodology

3.1 Study Area

The study area for this study is South Africa, which is the southernmost country on the African continent (Britannica, 2022). The population of South Africa is estimated to be 58.8 million people, with the youth aged 18 – 35 accounting for almost a third of the population at 17.84 million (Statistics South Africa, 2019).

3.2 Study design and data source

This study is a quantitative analysis of cross-sectional secondary data from the National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS-CRAM) 2020 wave 5. The NIDS-CRAM 2020 was conducted between 6 April 2021 and 11 May 2021 and consists of five (5) waves with wave 5 being the last wave (Kerr et al., 2020). Wave 5 was chosen as it is the latest national representative survey that covers the COVID-19 SRD grant.

The NIDS-CRAM 2020 survey covered questions on income, employment, household welfare, receipts of grants, and knowledge and behavior related to COVID-19. The NIDS-CRAM 2020 forms part of the broader Coronavirus Rapid Mobile Survey (CRAM) in the context of the global coronavirus pandemic and only collects data at the individual level (Kerr et al., 2020).

3.3 Study population and sample size

The target population of this study is the SCSRDG applicants aged 18- 35 years in South Africa. The study was only restricted to those who reported applying for the SCSRDG. The NIDS-CRAM followed a stratified sampling with a batch approach using the NIDS wave 5, conducted in 2017, as the sampling frame (Kerr et al., 2020). The sample size from the NIDS-CRAM wave 5 was made up of 17 568 individuals with a response rate of 40% which

gives a sample size of 7074 completed interviews (Kerr et al., 2020). The total population used in this study consists of a weighted sample size of 6 441 366 COVID-19 SRD grant applicants aged 18 to 35 years.

3.4 Variables

3.4.1 Outcome/ dependent variable

The dependent variable of this study is the SCSR DG receipt status. This variable is derived from the following questions asked in the NIDS-CRAM questionnaire: “Have you applied for the special COVID-19 relief of distress grant? Was your application successful?” The survey responses have been categorised as follows.

Since the study is interested in all those who have applied for the Special COVID-19 SRD grant, all the respondents who answered Yes applied - Yes successful are recategorised as respondents received grant. Those who answered Yes applied - Not successful and Yes applied – application pending are recategorised as respondents did not receive grant. Respondents who never applied for the grant and those who refused to answer the question were excluded from the analysis.

Table 1: Dependent variable categorisation

NIDS-CRAM Survey categorisation	Study categorisation
1 = Yes applied – yes successful 2 = Yes applied – not successful 3 = Yes applied – application pending 4 = No Never applied -8 = Refused	0 = Respondents received grant 1 = Respondents did not receive grant

3.4.2 Independent Variables

This study is based on an analysis of 14 independent variables that were derived from 17 questions asked in the NIDS-CRAM survey. The independent variables have been grouped into the following three groups, demographic, socio-economic and household characteristics.

Table 2: Independent variables to be used in this study.

Study Variable name	NIDS-CRAM Survey Variable name	NIDS-CRAM categorisation	Study categorisation
Demographic Characteristics			
Age Group (Main Independent Variable)	A7	Continuous 18+	18 - 20 Years = 0, 21 – 25 Years = 1, 26 – 30 Years = 2, 31 – 35 Years = 3, Other = 99
Sex	Ba1	Man = 1, Woman = 2, Other = 3, Refused = -8, Don't know = -9	Male = 0, Female = 1, Other = 99,
Population group	Ba2	African/Black = 1, Coloured = 2, Asian/Indian = 3, White = 4, Other = 5, Refused = -8, Don't know = -9	African/Black = 0, Coloured = 1, Asian/Indian = 2, White = 3, Other = 99,
Province of residence	Bb1	Western Cape = 1, Eastern Cape = 2, Northern Cape = 3, Free State = 4, KwaZulu-Natal = 5, North West = 6, Gauteng = 7, Mpumalanga = 8, Limpopo = 9, Refused = -8	Gauteng = 0, Western Cape = 1, Eastern Cape = 2, Northern Cape = 3, Free State = 4, KwaZulu-Natal = 5, North West = 6, Mpumalanga = 7, Limpopo = 8, Other = 99
Marital Status	Ba5	Yes = 1, No = 2, Refused = -8, Don't know = -9	Married/cohabiting = 0, Single = 1, Other = 99

Socio-economic Characteristics			
Employment Status	Merged Ca2 & Ca3	Yes = 1, No = 2, Refused = - 8, Don't know = -9	Employed = 0, Unemployed = 1, Other = 99
Highest Education Level	Ba3	Grade R/0 = 0 Grade 1 (previously Sub A/ class 1) = 1 Grade 2 (previously Sub B/ class 2) = 2 Grade 3 (Std. 1) = 3 Grade 4 (Std. 2) = 4 Grade 5 (Std. 3) = 5 Grade 6 (Std. 4) = 6 Grade 7 (Std. 5) = 7 Grade 8 (Std. 6/ Form 1) = 8 Grade 9 (Std. 7/ Form 2) = 9 Grade 10 (Std. 8/ Form 3) = 10 Grade 11 (Std. 9/ Form 4) = 11 Grade 12 (Std10 / Matric / Senior Certificate / Form 5) = 12 National Certificate Vocational 2 (NCV 2) = 13 National Certificate Vocational 3 (NCV 3) = 14 National Certificate Vocational 4 (NCV 4) = 15 N1 (NATED)/ NTC 1 = 16	Categorised No Schooling = 1, Primary = 2, Secondary = 3, Tertiary = 4, Other = 99

		N2 (NATED)/ NTC 2 = 17 N3 (NATED)/ NTC 3 = 18 No Schooling = 19 ABET Level 1 = 20 ABET Level 2 = 21 ABET Level 3 = 22 Refused = -8 Don't know = -9	
Household Characteristics			
Multiple Grants Recipients	Da9	(CSG) = 1, (OAP) = 2, Disability Grant = 3, Foster Child Grant = 4, Care Dependency Grant = 5, Social relief or distress grant = 6, War veterans grant = 7, COVID-19 Social Relief of Distress Grant (R350) = 8, Other = 9, Grant in aid = 10, NSFAS = 11, Refused = -8, Don't know = -9	COVID-19 Social Relief of Distress Grant (R350) =0, (Child Support Grant) = 1, (Old Age Pension) = 2, Disability Grant = 3, Foster Child Grant = 4, Care Dependency Grant = 5, Social relief or distress grant = 6, War veterans grant = 7, NSFAS = 8, Grant in aid = 9, Other = 99
Other Household Grants	Merged Da1 & Da3	Number Refused -8 Don't know -9	No grant received = 0, 1 -5 grants received = 1, More than 5 grants received = 2, Other = 99
Dwelling type	Bb5	A house or a flat = 1, A traditional house like a mud hut = 2, An informal house like a shack = 3, Other = 4, Refused = -8, Don't know -9	Formal = 0, Traditional = 1, Informal = 2, Other = 99
Access to water and electricity	Bb7 & Bb6	Yes = 1, No = 2, Refused = -8, Don't know = -9	No Access= 0, Water Only= 1, Electricity Only =2, Both = 3, Other = 99

Number of household members	Bc1	Number, refused = -8, Don't know = -9	1 – 3 Member/s = 0, 4 -6 Members = 1, 7- 9 Members = 2, 10 or More Member = 3, Other = 99
Main Source of income	Da12	Income from employment = 1, Income from a business = 2, Government grants = 3, Money from friends or family = 4, Other, specify = 5, Household had no income in March = 6, Pension = 7, Refused = -8, Don't know = -9	Household had no income in March = 0, Income from employment/business = 1, Government Grants = 2, Money from Friends and family = 3, Other = 99
Food shortage	Db1	Yes = 1, No = 2, Refused = -8, Don't know = -9	Yes = 0, No = 1, Other = 99

The variables were chosen and grouped into the 3 groups to provide a profile of the applicants that covers their demographic, socio-economic and household characteristics and to allow for comparison between and within the variables. The choice of the 14 variables was guided by the literature and the sustainable livelihood framework. These variables were chosen to cover four of the assets (Human, Social, Physical and Financial Capital assets) as outlined in the theoretical framework. Literature has indicated a loss of income as a driver that led poor families into poverty, to understand the impact of family and income on the livelihood of an individual this study has included household income and food security related variables (UNSDG, 2021).

Some of the questions from the NIDS-CRAM survey were merged to form one independent variable for this study, an example is question Da1 which was merged with Da3 to produce the variable other household grants. The variable age group is a continuous variable in the NIDS-CRAM survey for the purpose of this study the variable has been recategorised into 4 age groups. Similar to the variable highest education level in the NIDS-CRAM survey the responses are per individual education level while for this study these have been grouped into

five categories. A multicollinearity test was done for all the independent variables to examine the level of collinearity among the study variables.

3.4 Data Analysis Plan

The data were analysed using Stata version 15. The data was cleaned and weighted to cater for over-sampling and under-sampling errors. The analysis was done according to the three sub-objectives. The following weight was applied in Stata to the sample to obtain the correct variance estimates: *svyset cluster [weight = weight], strata(stratum)*

This is the correct weight to apply when doing analyses at an individual level as specified in the NIDS-CRAMS sample design and weighting metadata (Kerr et al., 2020).

Sub-objective 1: To determine the levels of the Special COVID-19 Social Relief of Distress Grant uptake among the youth aged 18 – 35 years in South Africa.

This sub-objective was achieved using descriptive statistics with percentages including tables, graphs, bars, and pie charts to determine the levels of the uptake of the COVID-19 SRD grant among the youth aged 18 - 35 years in South Africa.

The percentage was calculated using the following formula.

$$p_{\text{sub-category}} = (\text{number of people in sub-category} / \text{number of people in category}) \times 100$$

Sub-objective 2: To describe the demographic, socio-economic, and household characteristics among the youth aged 18 -35 years in South Africa taking up the Special COVID-19 Social Relief of Distress Grant.

To achieve this sub-objective, tables with the frequency, Percentage and chi-square were used to describe the demographic, socio-economic, and household characteristics of the youth aged 18 - 35 years in South Africa that are taking up the Special SCSRDG. The following formula was used to calculate the chi-square:

$$\chi^2 = \sum (O_i - E_i)^2 / E_i$$

Where the Chi-Square is denoted by χ^2 and

- O_i = observed value (actual value)
- E_i = expected value.

Sub-objective 3: To explore the association of the demographic, socio-economic, and household characteristics with the uptake of the Special COVID-19 Social Relief of Distress Grant among the youth aged 18 -35 years in South Africa

- To achieve this sub-objective, a Binary logistic regression was used. Binary logistic regression is a form of regression that is used when the outcome variable is dichotomous. The model is used to predict the probability of the occurrence of an event using log odds and odds ratios. If the odd ratio < 1.00, the outcome is less likely in the index group compared to the reference, and if the odd ratio >1.00 then the outcome is more likely in the index group compared to the reference.

The equation of Binary Logistic Regression is as follows:

$$\left[\frac{p(x)}{1-p(x)} \right] = a + b_1x_1 + b_2x_2 + b_3x_3 + \dots$$

Source (Osborne, 2008)

Where:

P=probability of occurrence of an outcome, 1-p= probability of nonoccurrence, p/1-p= odds, Logit (P) is the log of odds, Defined as $y=\ln(p/1-p)$, **a** = the constant of the equation, **b** = the coefficient of the predictor variables.

Test for Goodness-of-fit

Hosmer and Lemeshow's test was used as the goodness of fit test to determine how well the model fits the data used in the study. A good fit will be determined by a large p-value.

Test for Multicollinearity

Lastly, the study tested multicollinearity, the test for multicollinearity examines the level of collinearity among the study variables. This was done by computing a correlation coefficient matrix. If the pairwise correlation coefficients shown in the matrix are below 65%, it can be estimated that there is no multi-collinearity between the predictor variables and that the predictor variables are not highly correlated. To measure the strength of the correlation between the independent variables the Variance Inflation Factor VIF was used. For this study, any variable with a VIF value greater than 4 was considered to indicate multicollinearity.

3.5 Ethics

The study used secondary data from the National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS-CRAM) 2020. The NIDS-CRAM obtained ethical clearance from the University of Cape Town Ethics Committee (REC 2020/04/2017) and reciprocal ethics from the University of Stellenbosch. The data is freely available to the public and does not include any personal information or names of the respondents, thus anonymity is guaranteed. Given that the data is secondary data, there was no need for primary ethics approval from the University of the Witwatersrand Human Research Ethics Committee. The University of the Witwatersrand School Ethics Committee has granted an ethical waiver, with ethics waiver number 74820/3709781, for this study to be conducted because it uses secondary data.

Chapter 4: Results

This section of the report presents the research findings. The findings are presented at three levels in line with the objectives of the study as outlined in the methodology section. First, are the levels of the SCSR DG uptake, followed by the description and lastly the association of the demographic, socio-economic and household characteristics with the uptake of the grant.

4.1 Descriptive Statistics Results

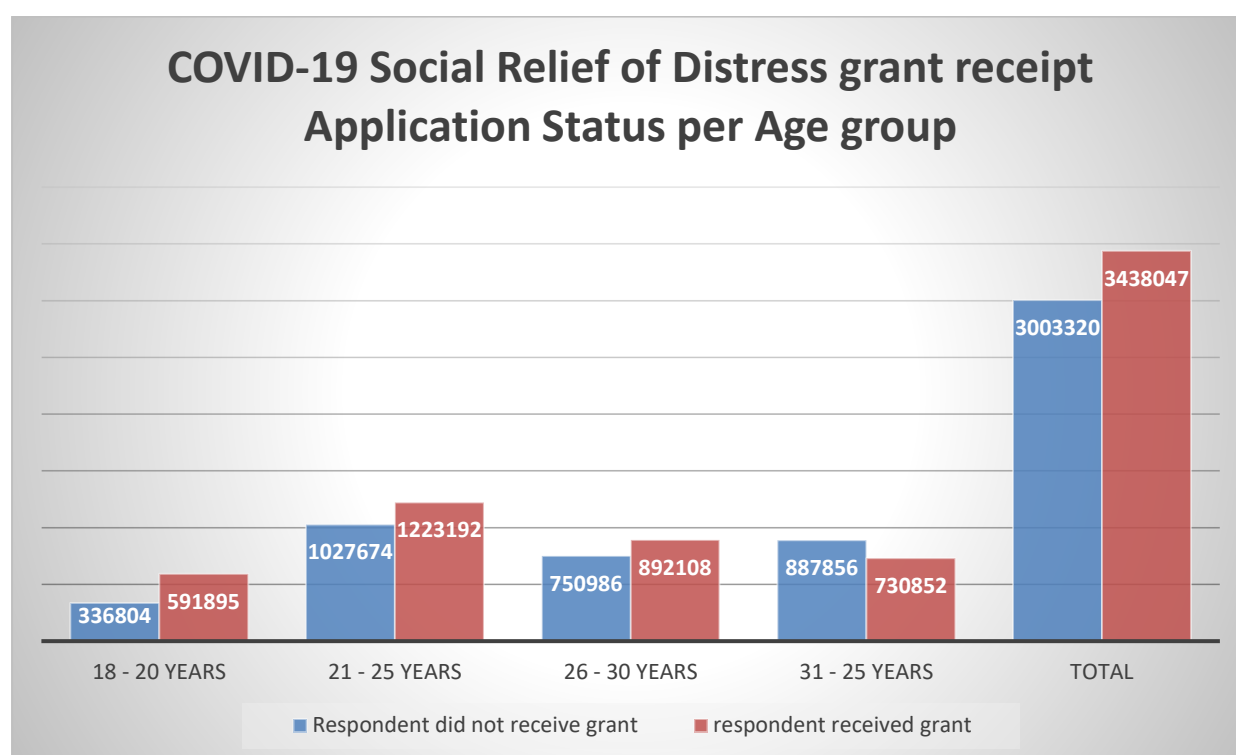


Figure 3: COVID-19 Social Relief of Distress grant receipt Application status per age group

This research explored the associations of demographic, socio-economic, and household factors with the uptake of the Special COVID-19 Social Relief of Distress Grant among the youth aged 18 -35 years in South Africa. The above figure shows the number of grant applicants per age group. A total of 3 438 046 applicants who applied for the grants received the grant while 3 003 320 did not receive it. The age group 21 – 25 years account for the biggest portion of applicants, with a total of 1 027 674 that did not receive the grant and 1 223 192 that received the grant.

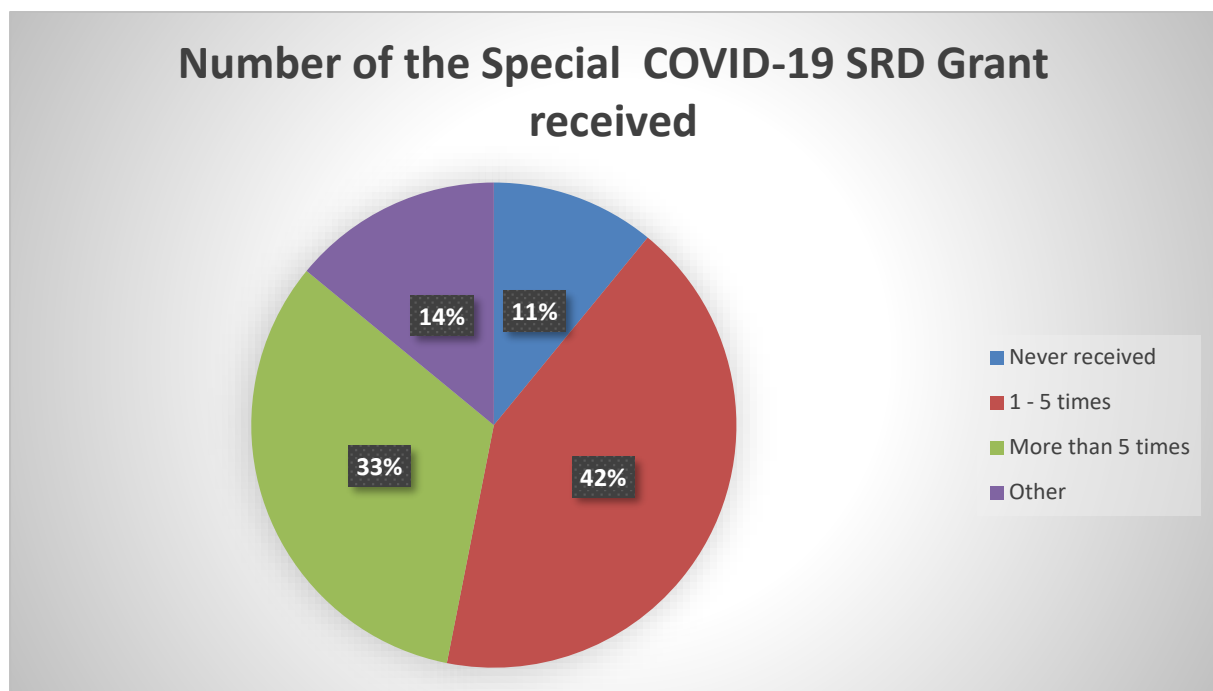


Figure 4: Pie chart showing the number of Special COVID-19 SRD Grants received among successful applicants.

The above pie chart shows the number of times successful applicants received the SCSRDG. Most of the applicants, 42%, reported that they received the grant between 1 – 5 times followed by 33% who received the SRD grant more than 5 times. About 11% of the applicants reported that they had never received the SRD grant.

Table 3: Distribution of the youth aged 18-35 who take up the special COVID-19 SRD Grant by demographic, social, and household characteristics.

Characteristics	Categories	Frequency (N)	Percent %
Demographic Characteristics			
Age Groups	18 - 20 Years	928 700	14.42
	21 – 25 Years	2 250 865	34.94
	26 – 30 Years	1 643 094	25.51
	31 – 35 Years	1 618 707	25.13
		6 441 366	100
Sex	Male	4 095 238	63.58
	Female	2 346 129	36.42
		6 441 366	100
Population group	African/Black	5 839 993	90.66
	Coloured	439 742	6.83
	Asian/Indian	104 862	1.63
	White	56 769	0.88
		6 441 366	100
Province of residence	Western Cape	568 727	8.83
	Eastern Cape	779 043	12.09
	Northern Cape	131 853	2.05
	Free State	402 999	6.26
	KwaZulu-Natal	1 305 312	20.26
	North West	209 968	3.26
	Gauteng	1 785 938	27.73
	Mpumalanga	508 700	7.90
	Limpopo	748 829	11.63
		6 441 366	100
Marital Status	Married/cohabiting	1,416,825	22.00
	Single	5,024,541	78.00
		6 441 366	100
Socio-Economic Characteristics			
Employment status	Employed	328 496	7.90
	Unemployed	3 804 372	91.47
	Other	22 256	0.63
		6 441 366	100
Highest educational level	Primary	129,972	2.02
	Secondary	6 283 400	97.55
	Other	27 994	0.43
		6 441 366	100

Characteristics	Categories	Frequency (N)	Percent (%)
Household Characteristics			
Multiple Grants Recipients	Child Support Grant (CSG)	366 544	11.06
	Old Age Pension Grant (OAP)	3 932	0.12
	Disability Grant	5,060	0.15
	Foster Child Grant	429	0.01
	R350 COVID-19 Social Relief of Distress	2 693 427	81.29
	NSFAS	83 817	2.53
	Grant in aid	2 852	0.09
	Other	157 402	4.75
		6 441 366	100
Other Household Grants	No grant received	2 734 370	42.45
	1 – 5 grants received	3 292 988	51.12
	More than 5 grants received	203 455	3.16
	Other	210 552	3.27
		6 441 366	100
Dwelling type	Formal ⁴	4 994 322	77.54
	Traditional ⁵	479 815	7.45
	Informal ⁶	881 391	13.68
	Other	85 838	1.33
		6 441 366	100
Access to Water and Electricity	No Access	234 606	3.64
	Water Only	169 986	2.64
	Electricity Only	1 145 637	17.79
	Both	4 891 137	75.93
		6 441 366	100
Number of Household members	1 – 3 Member/s	2 221 625	34.49
	4 – 6 Members	2 574 969	39.98
	7 – 9 Members	1 262 558	19.60
	10 or More Members	382 214	5.93
		6 441 366	100

⁴ A structure built according to approved plans, i.e. house on a separate stand, flat or apartment, townhouse, room in backyard, rooms or flatlet elsewhere

⁵ A dwelling made of clay, mud, reeds or other locally available materials.

⁶ A makeshift structure not erected according to approved architectural plans, for example shacks or shanties in informal settlements or in backyards.

Main Source of Income	Income from employment/business	2 673 304	42.62
	Government grants	2 757 540	43.97
	Money from friends or family	766 388	12.22
	Household had no income in March	11 328	0.18
	Other, specify	63 27	1.01
		6 441 366	100
Food shortage	Yes	2,247,343	34.89
	No	4,189,232	65.04
	Other	4,790.7247	0.07
		6 441 366	100

Table 3 above indicates the population distribution by demographic, socio-economic and household characteristics. Those aged between 21 – 25 years account for the highest proportion of applicants at 39.94% while those aged 18 – 20 account for the lowest proportion of applicants at 14.42%. Most of the applicants were male representing 63.58% of the total applicants. African/Black is the highest population group that applied for the grant accounting for 90.66% of the applicants while white account for the least proportion of the applicants at 0.88%. Most of the applicants 97.55% indicate that they have secondary education as the highest level of education.

Most of the applicants reside in Gauteng, KwaZulu-Natal, and Eastern Cape representing 27.73%, 20.36%, and 12.09% of the applicants respectively. About 11.06% of those that receive the child support grant have also applied for the SCSRDG. Most of the applicants 91.47% reported their employment status as unemployed. A total of 4 994 322 (77.54%) of the applicants reported their dwelling type is formal and 4 891 137 (75.93%) reported that they have access to both water and electricity in their household.

Most applicants 39.98% come from a household with between 4 – 6 family members followed by those that come from a household with between 1 – 3 members at 34.49%. A total of 43.97% of the applicants reported government grants as their main source of income while only 34.89% reported having a food shortage. Most of the applicants 78% reported that they were single and only 22% reported that they were married/cohabiting.

Table 4: Chi-Square distribution of Demographic, socio-economic, and Household Characteristics among the youth aged 18 - 35 taking up the Special COVID-19 SRD Grant

Independent Variable	Respondents did not receive grant (%)	Respondents received grant. (%)	Chi-Square (P-value)
Demographic characteristics			
Age Group			11.06 (p-value=0.2126)
18 - 20 Years	336 804 (11.21)	591 895 (17.22)	
21 - 25 Years	1 027 67 (34.22)	1 223 191 (35.58)	
26 – 30 Years	750 986 (25.01)	892 108 (25.95)	
31 – 35 Years	887 855 (29.56)	730 851 (21.26)	
Total	3 003 320 (100)	3 438 046 (100)	
Sex			1.00 (p-value =0.4932)
Male	1 855 880 (61.79)	2 239 357 (65.13)	
Female	1 147 439 (38.21)	1 198 688 (36.42)	
Total	3 003 320 (100)	3 438 046 (100)	
Population group			11.55 (p-value=0.3174)
African/Black	2 644 912 (88.07)	3 195 081 (92.93)	
Coloured	291 625 (9.71)	148 117 (4.31)	
Asian/Indian	54 908 (1.83)	49 954 (1.45)	
White	11 876 (0.40)	44 894 (1.31)	
Total	3 003 320 (100)	3 438 046 (100)	
Province of residence			23.45 (p-value=0.2061)
Western Cape	359 998 (11.99)	208 728 (6.07)	
Eastern Cape	394 351 (13.13)	384 690 (11.19)	
Northern Cape	87 026 (2.90)	44 825 (1.30)	
Free State	213 591 (7.11)	189 407 (5.51)	
KwaZulu-Natal	623 689 (20.77)	681 623 (19.83)	
North West	96 158 (3.202)	113 808 (3.31)	
Gauteng	796 740 (26.53)	989 197 (28.77)	
Mpumalanga	196 164 (6.53)	312 535 (9.09)	
Limpopo	235 599 (7.85)	513 229 (14.93)	
Total	3003320 (100)	3438046 (100)	
Marital Status			28.31 (p- value= 0.0003)
Married/cohabiting	905 811 (30.16)	511 013 (14.86)	
Single	2 097 508 (69.84)	2 927 033 (85.14)	
Total	3 003 320 (100)	3 438 046 (100)	
Socio-economic Characteristics			
Highest educational level			0.59 (p-value= 0.7841)
Primary	48 930 (1.63)	81 041 (2.36)	
Secondary	2 942 686 (97.98)	3 340 713 (97.17)	
Other	11 702 (0.39)	16 291 (0.47)	
Total	3 003 320 (100)	3 438 046 (100)	

independent Variable	Respondents did not receive grant (%)	Respondents received grant (%)	Chi-Square (P-value)
Employment status			16.46 (p-value=0.0827)
Employed	128 752 (7.40)	199 744 (8.26)	
Unemployed	1 612 094 (92.60)	2 191 177 (90.65)	
Other	0	26255 (1.09)	
Total	1 740 845 (100)	2 418 278 (100)	
Household Characteristics			
Multiple Grants Recipients			561.37 (p-value=0.000)
Child Support Grant (CSG)	301 338 (74.02)	65 205 (2.24)	
Old Age Pension Grant (OAP)	0	3 931 (0.14)	
Disability Grant	5 060 (1.24)	0	
Foster Child Grant	429 (0.11)	0	
R350 COVID-19 Social Relief of Distress	12 984 (3.19)	2 680 443 (92.23)	
NSFAS	75 368 (18.51)	8 449 (0.29)	
Grant in aid	2 851 (0.70)	0	
Other	9 091 (2.23)	148 310 (5.10)	
Total	407 123 (100)	2 906 339 (100)	
Other Household Grants			6.74 (p-value=0.4274)
No grant received	1 364 960 (45.45)	1 369 410 (39.83)	
1 – 5 grants received	1 422 161(47.35)	1 870 827 (54.42)	
More than 5 grants received	128 522 (4.28)	74 932 (2.18)	
Other	87 675 (2.92)	122 876 (3.57)	
Total	3 003 320 (100)	3 438 046 (100)	
Dwelling type			13.21 (p-value=0.0694)
Formal	2 218 652 (73.87)	2 775 669 (80.73)	
Traditional	225 650 (7.513)	254 164 (7.393)	
Informal	538 606 (17.93)	342 785 (9.97)	
Other	20 410 (0.6796)	65 427 (1.903)	
Total	3 003 320 (100)	3 438 046 (100)	
Access to Water and Electricity			11.28 (p-value=0.0715)
No Access	167 633 (5.58)	66 972 (1.95)	
Water Only	110 338 (3.67)	59 647 (1.74)	
Electricity Only	503 380 (16.76)	642 256 (18.68)	
Both	2 221 967 (73.98)	2 669 170 (77.64)	
Total	3 003 320 (100)	3 438 046 (100)	

independent Variable	Respondents did not receive grant (%)	Respondents received grant (%)	Chi-Square (P-value)
Number of Household members			
1 – 3 Member/s	1 090 491 (36.31)	1 131 134 (32.90)	11.76 (p-value=0.1232)
4 – 6 Members	1 285 156 (42.79)	1 289 813 (37.52)	
7 – 9 Members	437 494 (14.57)	825 063 (24.00)	
10 or More Members	190 178 (6.33)	192 035 (5.59)	
Total	3 003 320 (100)	3 438 046 (100)	
Main Source of Income			
Income from employment/business	1 368 532 (47.00)	1 304 771 (38.83)	8.49 (p-value=0.568)
Government grants	1 127 764 (38.73)	1 629 776 (48.50)	
Money from friends or family	376 253 (12.92)	390 135 (11.61)	
Household had no income in March	5 297 (0.18)	6 030 (0.18)	
Other, specify	39 952 (1.17)	29 320 (0.87)	
Total	2 911 799 (100)	3 360 033 (100)	
Food shortage			
Yes	1 022 085 (34.03)	1 225 258 (35.64)	0.79 (p-value = 0.614)
No	1 981 234 (65.97)	2 207 997 (64.22)	
Other	0	4 791 (0.14)	
Total	3 003 320 (100)	3 438 046 (100)	

Table 4 above depicts a comparison description of the SCSRDG applicants' demographic, socio-economic, and household characteristics among youth aged 18 – 35 years in South Africa. Those aged 21 – 25 account for the majority of both that received and did not receive the grant at 35.58% and 34.22% respectively. There is no significant association between COVID-19 SRD grant receipt status and the age groups, the p-value =0.2126 is greater than 0.05. Most of the applicants were males with over 65.13% of them having received the grant and only 36.42% of women received the grant. For both those who received and did not receive the grant, African/black population group are the majority as compared to other population groups accounting for 92.93% and 88.07% respectively. An estimated 2.36% and 1.63% of applicants who received and did not receive the SCSRDG have primary education as their highest educational level respectively.

Gauteng, KwaZulu-Natal, and Limpopo have the highest number of respondents that received the grant at 28.77%, 19.83%, and 14.93% respectively. Gauteng, KwaZulu-Natal, and Eastern Cape have the highest number of respondents that did not receive the grant at 26.56%, 20.77%, and 13.13% respectively.

Among respondents that received the grant 2.24% of them reported that they also received the Child Support Grant as compared to the 74.02% of respondents that did not receive the SCSR DG but received the Child Support Grant.

The majority of both those who received the grant and those who did not receive it, 39.83% and 45.45% respectively, reported that their household did not receive other grants. A total of 2 191 177 (90.65%) of those who received the grant were unemployed and only 199 744 (8.26%) were employed, similar to those who did not receive the grant 92.60% were unemployed and only 7.40% were employed. An estimated 80.73% and 73.87% of respondents who received the grant and respondents who did not receive the grant respectively reported that they reside in formal dwelling units.

Only 1.95 % of respondents who received the grant reported that they do not have access to both water and electricity as compared to 5.58% of the respondents who did not receive the grant that did not have access to both water and electricity. Most of the respondents that received the grant 37.52% are from households with between 4 – 6 members followed by 32.90% that are from households with between 1 - 3 members. Among respondents that received the grant, government grant represents the highest main source of income at 48.50% followed by income from employment/business at 38.83%, and in the third place is money from friends or family at 11.61%.

A total of 64.22% of the respondents who received the grant indicated that they had no food shortage as compared to 65.97% of the respondents who did not receive the grant that indicated no food shortage. Among the respondents that received the grant majority of them, 85.14% reported that they were single and only 14.86% were married or cohabiting as compared to 69.84% single and 30.16% married or cohabiting among the respondents that did not receive the grant.

Table 5: Unadjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characteristics in South Africa

Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Demographic Characteristics			
Age Group	LR chi(2) = 25.61 Prob>chi2 = 0.0000 Pseudo R2 = 0.0175		
18 – 20 Years	Reference Category		
21 – 25 Years	0.5483	0.004	[0.3652 – 0.8229]
26 – 30 Years	0.4092	0.000	[0.2666 – 0.6280]
31 – 35 Years	0.3748	0.000	[0.2466 – 0.5695]
Sex	LR chi(2) = 12.30 Prob>chi2 = 0.0005 Pseudo R2 = 0.0084		
Male	Reference Category		
Female	0.6431	0.000	[0.5023 – 0.8236]
Population Group	LR chi(2) = 14.08 Prob>chi2 = 0.0028 Pseudo R2 = 0.0096		
African/Black	Reference Category		
Coloured	0.3575	0.001	[0.1995 – 0.6406]
Asian/Indian	0.4101	0.305	[0.0748 – 2.2493]
White	0.8202	0.843	[0.1151 – 5.8458]
Province	LR chi(2) = 20.74 Prob>chi2 = 0.0079 Pseudo R2 = 0.0142		
Gauteng	Reference Category		
Eastern Cape	0.7825	0.348	[0.1993 – 0.7751]
Northern Cape	0.8383	0.594	[0.4388 – 1.6017]
Free State	0.6387	0.116	[0.3528 – 1.1208]
KwaZulu- Natal	0.9976	0.989	[0.6958 – 1.4303]
North West	1.1578	0.650	[0.6148 – 2.1800]
Western Cape	0.3929	0.007	[0.1993 – 0.7750]
Mpumalanga	1.0365	0.878	[0.6545 – 1.6417]
Limpopo	1.6123	0.053	[0.9931 – 2.6175]
Marital Status	LR chi(2) = 8.01 Prob>chi2 = 0.0046 Pseudo R2 = 0.0055		
Married/cohabiting	Reference Category		
Single	1.5563	0.005	[1.1445 – 2.1162]

Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Socio-economic characteristics			
Employment Status	<i>LR chi(2) = 0.81 Prob>chi2 = 0.3677 Pseudo R2 = 0.0008</i>		
Employed	Reference Category		
Unemployed	1.2448	0.367	[0.7735 – 2.0030]
Household Characteristics			
Other Household Grants	<i>LR chi(2) = 0.05 Prob>chi2 = 0.9969 Pseudo R2 = 0.0000</i>		
No grants received	Reference Category		
1 -5 grants received	0.9700	0.822	[0.7448 – 1.2633]
More than 5 grants received	0.9733	0.932	[0.5217 – 1.8158]
Other	0.9733	0.944	[0.4604 – 2.0575]
Dwelling Type	<i>LR chi(2) = 11.03 Prob>chi2 = 0.0116 Pseudo R2 = 0.0075</i>		
Formal	Reference Category		
Traditional	0.8	0.269	[0.5385 – 1.1884]
Informal	0.05589041	0.003	[0.3807 – 0.8205]
Other	1.6	0.316	[0.6389 – 4.0066]
Access to Water and Electricity	<i>LR chi(2) = 8.60 Prob>chi2 = 0.0719 Pseudo R2 = 0.0059</i>		
No Access	Reference Category		
Water Only	1.0657	0.897	[0.4045 – 2.8077]
Electricity Only	2.1960	0.018	[1.1423 – 4.2218]
Both	1.9231	0.039	[1.0348 – 3.5743]
Number of Household Members	<i>LR chi(2) = 2.19 Prob>chi2 = 0.5346 Pseudo R2 = 0.0015</i>		
1 -3 Member/s	Reference Category		
4 – 6 Members	1.0078	0.959	[0.7479 – 1.3580]
7 – 9 Members	1.2413	0.219	[0.8792 – 1.7524]
10 or More Members	0.9599	0.853	[0.6224 – 1.4805]

Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Main Source of Income <i>LR chi(2) = 7.620 Prob>chi2 = 0.1066 Pseudo R2 = 0.0054</i>			
Household had no income in March	Reference Category		
Income from employment/business	2.0582	0.557	[0.1852 – 22.8730]
Government grants	2.7230	0.415	[0.2453 – 30.226]
Money from friends or family	1.8824	0.610	[0.1652 – 21.4371]
Other	0.6667	0.810	[0.0246 – 18.059]
Food Shortage <i>LR chi(2) = 1.700 Prob>chi2 = 0.4267 Pseudo R2 = 0.0012</i>			
No	Reference Category		
Yes	0.8656	0.259	[0.6735 – 1.1124]
Other	1.6529	0.563	[0.3007 – 9.0864]

Table 5 above shows the Unadjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicant by population characteristics in South Africa. For age groups, the likelihood ratio of 25.61 with a p-value of 0.0000 indicates that age groups are a significant predictor variable for the SCSRDG. All the age groups are statistically significant with 18 – 20 years as the reference age group. The age group 21 – 25 years decreases the odds of a respondent receiving the COVID-19 SRD grant by a factor of 0.5483 when compared to the age group 18 – 20 years. Sex is a significant predictor variable for the COVID-19 SRD grant with a likelihood ratio of 12.30 and p-value of 0.0005. The sex female (CI- [0.5023 – 0.8236]) decreases the odds of respondents receiving the COVID-19 SRD grant by a factor of 0.6431 when compared to the male category.

For the population group, the likelihood ratio chi-square of 14.08 with a p-value of 0.0028 indicates that the population group is a significant predictor variable while controlling for other variables. Only the Coloured population group is statistically significant when compared to the reference category the African/black population group. While the population group coloured with a confidence interval [0.1995 – 0.6406] decreases the odds of a

respondent receiving the COVID-19 SRD grant by a factor of 0.3575 when compared to the African/black population group. Province is a significant predictor variable for the COVID-19 SRD grant application with a likelihood ratio chi-square of 20.74 and a p-value of 0.0079. The province KwaZulu-Natal (CI- [0.4388 – 1.6017]) decreases the odds ratio of a respondent receiving the grant by a factor of 0.9976 while the province Limpopo increases the odds by a factor of 1.6123 when compared to the Gauteng province.

The predictor variables Other Household Grant with a p-value of 0.9969 and Employment Status with a p-value of 0.3677 are not statistically significant predictor variables for a successful COVID-19 SRD grant application. Compared to applicants who reside in formal dwelling units, those who reside in informal (CI- [0.3807 – 0.8205]) and traditional (CI- [0.5385 – 1.1884]) dwelling units are 0.05 and 0.8, respectively, less likely to receive the grants. The predictor variable dwelling type with the likelihood ratio chi-square of 11.03 and a p-value of 0.0116 is a significant predictor variable for the application of the SCSRDG. Applicants that have access to water only (CI- [0.4045 – 2.8077]), electricity only (CI- [1.1423 – 4.2218]) and both water and electricity (CI- [1.0348 – 3.5743]) are 1.06; 2.19 and 1.19 more likely to receive the grants as compared to those that have no access respectively.

As compared to a respondent from a household with 1 - 3 members the odds of a respondent from a household with 4 – 6 members to receive the COVID-19 SRD grant increase by a factor of 1.0078 while controlling for other variables. Applicants whose household's main source of income is from employment/business (CI- [0.1852- 22.8730]) and government grants (CI- [0.2453 – 30.226]) are 2.0582 and 2.7230 more likely to receive the COVID-19 SRD grant when compared to those whose household did not have any income. Applicants who had a food shortage (CI- [0.6735- 1.1134]) are 0.8656 less likely to receive the COVID-19 SRD grants when compared to those who did not have a food shortage. For marital status, the likelihood ratio chi-square of 8.01 with a p-value of 0.0046 indicates that marital status is a significant predictor variable for the SCSRDG. Being single increases the odds of an applicant to receive the COVID-19 SRD grant by a factor of 1.5563 when compared to those who are married/cohabiting.

Table 6: Model 1 Adjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characteristics in South Africa

Adjusted Model 1 LR Chi (38) = 448.49 P-Value = 0.0000 Pseudo R ² =0.4738			
Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Demographic Characteristics			
Age Group			
18 – 20 Years	Reference Category		
21 – 25 Years	0.5665	0.117	[0.2783 – 1.1529]
26 – 30 Years	0.2820	0.002	[0.1277 – 0.6227]
31 – 35 Years	0.2435	0.001	[0.1079 – 0.5493]
Sex			
Male	Reference Category		
Female	0.4720	0.002	[0.2909 – 0.7660]
Population Group			
African/Black	Reference Category		
Coloured	0.4915	0.289	[0.1322 – 1.8265]
Asian/Indian	0.1586	0.201	[0.0094 – 2.6694]
White	1	-	-
Province			
Gauteng	Reference Category		
Eastern Cape	0.7708	0.641	[0.2581 – 2.3021]
Northern Cape	1.7389	0.420	[0.4533 – 6.6699]
Free State	0.3106	0.036	[0.1036 – 0.9274]
KwaZulu- Natal	0.6754	0.322	[0.3109 – 1.4674]
North West	2.2742	0.227	[0.5996 – 8.6251]
Western Cape	0.7114	0.630	[0.1782 – 2.8359]
Mpumalanga	0.7325	0.524	[0.2813 – 1.9072]
Limpopo	0.9730	0.956	[0.3668 – 2.5802]
Marital Status			
Married/cohabiting	Reference Category		
Single	0.6626	0.241	[0.3329 – 1.3184]

Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Highest Education Level			
No Schooling	Reference Category		
Primary	0.0989	0.124	[0.0052 – 1.8869]
Secondary	0.3776	0.416	[0.0362 – 3.9408]
Other	1	-	-
Socio-economic Characteristics			
Employment Status			
Employed	Reference Category		
Unemployed	0.7547	0.480	[0.3456 – 1.6480]
Household Characteristics			
Other Household grants			
No grant received	Reference Category		
1 – 5 grants received	1.0517	0.882	[0.5413 – 2.0438]
More than 5 grants received	0.8986	0.874	[0.2412 – 3.3489]
Other	1.4837	0.680	[0.2281 – 9.6514]
Dwelling Type			
Formal	Reference Category		
Traditional	2.0844	0.074	[0.9313 – 4.6653]
Informal	1.0647	0.895	[0.4208 – 2.6939]
Other	0.8663	0.857	[0.1817 – 4.1286]
Access to Water and Electricity			
No Access	Reference Category		
Water Only	1.1602	0.886	[0.1519 – 8.8636]
Electricity Only	1.1961	0.812	[0.2723 – 5.2525]
Both	1.9135	0.379	[0.4509 – 8.1192]
Other	0.1546	0.205	[0.0086 – 2.7760]

Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Number of Household Members			
1 – 3 Members	Reference Category		
4 – 6 Members	0.2740	0.001	[0.1293 – 0.5804]
7 – 9 Members	0.2569	0.003	[0.1052 – 0.6275]
10 or More Members	0.1840	0.001	[0.0652 – 0.5189]
Main Source of Income			
Household had no income	Reference Category		
Income from employment/business	0.8958	0.969	[0.0034 – 237.0]
Government grants	1.1159	0.969	[0.0043 – 292.6]
Money from friends or family	0.3369	0.703	[0.0012 – 90.89]
Food Shortage			
No	Reference Category		
Yes	0.8775	0.609	[0.5318 – 1.4480]
Other	0.6494	0.767	[0.0375 – 11.23]
_cons	2.6853	0.757	[0.0052 – 1399.4]

Table 6 above shows the first adjusted logistics regression of odds ratios among the SCSR DG applicants by demographic, socio-economic, and household characteristics in South Africa. This model includes all the independent variables used in this study. The Likelihood Ratio Chi2 of 38 degrees of freedom of 448.49 with a p-value of 0.0000 indicates that the adjusted model fits the data significantly. South African youth aged 26 – 30 (CI- [0.1277 – 0.6227]) are 0.2820 less likely to receive the COVID-19 SRD grant as compared to those aged 18 – 20. Females (CI - [0.2909 – 0.7660]) are 0.4720 less likely to receive the grant when compared to males.

The odds of the Coloured (CI- [0.1322 – 1.8265]) and Asian/Indians (CI - [0.0094 – 2.6694]) population groups to receive the COVID-19 SRD grant decreased by a factor of 0.4915 and 0.1586 respectively when compared to the reference population group, African/Blacks.

Northern Cape (CI- [0.4533 – 6.6699]) and North West (CI- [0.5996 – 8.6251]) are the only two provinces whose odds for receiving the COVID-19 SRD grant increase when compared to the reference category, Gauteng, by a factor of 1.7389 and 2.2742 respectively.

An applicant who is single (CI- [0.3329 – 1.3184]) is 0.6626 less likely to receive the COVID-19 SRD grant when compared to a married/cohabiting applicant. The odds of an applicant with Primary education and secondary education as their highest education level decrease by a factor of 0.0989 and 0.3776 when compared to one with no schooling respectively. Unemployed (CI- [0.3456 – 1.6480]) applicants are 0.7547 less likely to receive the grant when compared to the employed applicant.

When compared to an applicant from a household that does not receive any grant the odds of an applicant from a household that receives 1 – 5 grants increase by a factor of 1.0517. Applicants who reside in traditional dwellings (CI- [0.9313 – 4.6653]) are 2.0844 more likely to receive the COVID-19 SRD grant when compared to those who reside in formal dwellings, while those who reside in informal dwellings (CI- [0.4208 – 2.6939]) are 1.0647 more likely when compared to the reference category. Applicants that have access to water only (CI- [0.1519 – 8.8636]) are 1.1602 more likely to receive the SCSR DG when compared to those that have no access, while those that have access to electricity only (CI- [0.2723 – 5.2525]) are 1.1961 more likely and those that have access to both (CI- [0.4509 – 8.1192]) are 1.9135 more likely in comparison to the reference category.

The odds of receiving the COVID-19 SRD grant for an applicant from a household with 4 – 6 members decreases by a factor of 0.2740 when compared to an applicant from a household with 1 - 3 members. The odds increase by a factor of 1.1159 for an applicant whose household's main income is government grants when compared to an applicant whose household does not have any income. An applicant who has suffered a food shortage (CI- [0.5318 – 1.4480]) is 0.8775 less likely to receive the COVID-19 SRD grant when compared to an applicant who did not suffer any food shortage.

Table 7: Model 2 Adjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characteristics in South Africa

Adjusted Model		LR Chi (25) = 233.55		P-Value = 0.0000		Pseudo R ² =0.7963	
Independent Variable		Odds Ratio		P> z		95% Conf. Interval	
Demographic Characteristics							
Age Group							
18 – 20 Years		Reference Category					
21 – 25 Years		6.0229		0.273		[0.2433 – 149.1]	
26 – 30 Years		0.5950		0.750		[0.0242 – 14.59]	
31 – 35 Years		0.2293		0.428		[0.0059 – 8.7818]	
Sex							
Male		Reference Category					
Female		0.0085		0.005		[0.0003 – 0.2335]	
Province							
Gauteng		Reference Category					
Eastern Cape		0.0130		0.051		[0.0001– 1.0248]	
Northern Cape		0.0231		0.189		[0.0000 – 6.3776]	
Free State		0.0247		0.118		[0.0002 – 2.5657]	
KwaZulu- Natal		0.0857		0.082		[0.0053 – 1.3694]	
North West		2.8797		0.502		[0.1311 – 63.211]	
Western Cape		0.1125		0.415		[0.0005 – 21.378]	
Mpumalanga		0.0105		0.064		[0.0003 – 1.2633]	
Limpopo		0.1728		0.359		[0.0040 – 7.3845]	
Marital Status							
Married/cohabiting		Reference Category					
Single		0.2258		0.177		[0.0261 – 1.9573]	
Independent Variable		Odds Ratio		P> z		95% Conf. Interval	
Socio-economic Characteristics							
Employment Status							
Employed		Reference Category					
Unemployed		1.8558		0.612		[0.1704 – 20.215]	

Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Household Characteristics			
Multiple Grants Recipients			
COVID-19 Social Relief of Distress	Reference Category		
Old Age Pension Grant (OAP)	1	-	-
Disability Grant	1	-	-
Foster Child Grant	1	0.123	[0.6358 – 45.20]
NSFAS	0.0665	0.176	[0.0013 – 3.375]
Other	16.9508	0.238	[0.1546 – 1858.2]
Dwelling Type			
Formal	Reference Category		
Traditional	2.2449	0.512	[0.2006 – 25.118]
Informal	0.1774	0.451	[0.0019 – 15.906]
Other	3.0721	0.649	[0.0245 – 384.50]
Number of Household Members			
1 – 3 Members	Reference Category		
4 – 6 Members	0.4449	0.665	[0.0113 – 17.484]
7 – 9 Members	1.2969	0.894	[0.0288 – 58.393]
10 or More Members	0.2569	0.508	[0.0046 – 14.342]
Main Source of Income			
Household had no income	Reference Category		
Income from employment/business	1	-	-
Government grants	12.4666	0.232	[0.1989 – 781.54]
Money from friends or family	7.1700	0.296	[0.1784 – 288.25]
_cons	71.9214	0.205	[0.0967 – 53495.3]

The table 7 above shows the second adjusted logistics regression of odds ratios among the SCSR DG applicants by demographic, socio-economic, and household characteristics in South Africa. This model is based only on the following independent variables: Age Groups, Sex, Province, Marital Status, Employment Status, Multiple Grants Recipients, Dwelling Type, Number of Household Members and Main Source of Income. The Likelihood Ratio Chi2 of 25 degrees of freedom is 448.49 with a p-value of 0.0000 indicates that the adjusted model fits the data significantly. The age group 26 – 30 (CI- [0.2433 – 149.1]) is 6.0229 more likely to receive the COVID-19 SRD grant as compared to those aged 18 – 20. Females (CI - [0.0003 – 0.02335]) are 0.0085 less likely to receive the grant when compared to males.

Only applicants from North West (CI- [0.1311 – 63.211]) are more likely to receive the COVID-19 SRD grant when compared to the reference category, Gauteng, with a likelihood increase by a factor of 2.8797. Being single (CI- [0.0261 – 1.9573]) reduces the likelihood to receive the COVID-19 SRD grant by a factor of 0.2258 when compared to a married/cohabiting applicant. While being unemployed increases the likelihood of receiving the SCSR DG grant by a factor of 1.8558 when compared to the employed applicant. Residing in a traditional dwelling (CI- [0.2006 – 25.118]) increases the likelihood of receiving the COVID-19 SRD grant by a factor of 2.2449 when compared to residing in a formal dwelling while residing in an informal dwelling (CI- [0.0019 – 15.906]) decrease the likelihood by a factor of 0.1774 when compared to the reference category.

An applicant from a household with 7 – 9 members (CI- [0.0288 -58.393]) is more likely by a factor of 1.2969 to receive the SCSR DG when compared to an applicant from a household with 1 - 3 members. The odds increase by a factor of 12.466 and 7.17 for an applicant whose household's main income is government grants and money from friends or family respectively when compared to an applicant whose household does not have any income.

Table 8: Model 3 Adjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characteristics in South Africa

Adjusted Model 3 LR Chi (30) = 82.20 P-Value = 0.0000 Pseudo R2=0.0562			
Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Demographic Characteristics			
Age Group			
18 – 20 Years	Reference Category		
21 – 25 Years	0.5085	0.002	[0.3323 – 0.7779]
26 – 30 Years	0.3596	0.000	[0.2288 – 0.5654]
31 – 35 Years	0.3265	0.000	[0.2095 – 0.5089]
Sex			
Male	Reference Category		
Female	0.6229	0.000	[0.4778 – 0.8119]
Population Group			
African/Black	Reference Category		
Coloured	0.4424	0.023	[0.2187 – 0.8950]
Asian/Indian	0.2865	0.167	[0.0487 – 1.6856]
White	1.3932	0.747	[0.1856 – 10.4588]
Province			
Gauteng	Reference Category		
Eastern Cape	0.7733	0.365	[0.4433 – 1.3492]
Northern Cape	1.0442	0.905	[0.5128 – 2.1266]
Free State	0.5865	0.083	[0.3210 – 1.0715]
KwaZulu- Natal	0.8925	0.585	[0.5933 – 1.3427]
North West	1.1871	0.612	[0.6115 – 2.304]
Western Cape	0.4850	0.066	[0.2243 – 1.0491]
Mpumalanga	0.8582	0.638	[0.5435 – 1.4529]
Limpopo	1.1424	0.280	[0.7924 – 2.2371]
Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Household Characteristics			

Other Household grants			
No grant received	Reference Category		
1 – 5 grants received	0.8636	0.398	[0.6147 – 1.2132]
More than 5 grants received	0.9103	0.817	[0.4099 – 2.0212]
Other	0.9085	0.814	[0.4086 – 2.0197]
Dwelling Type			
Formal	Reference Category		
Traditional	0.7573	0.217	[0.4871 – 1.1774]
Informal	0.6736	0.086	[0.4290 – 1.0576]
Other	1.4323	0.468	[0.5421 – 3.7841]
Access to Water and Electricity			
No Access	Reference Category		
Water Only	0.9478	0.917	[0.3470 – 2.5892]
Electricity Only	1.6140	0.191	[0.7869 – 3.3108]
Both	1.4564	0.607	[0.7339 – 2.8902]
Other	0.5166	0.607	[0.0415 – 6.4189]
Number of Household Members			
1 – 3 Members	Reference Category		
4 – 6 Members	1.0080	0.965	[0.7050 – 1.4412]
7 – 9 Members	1.0941	0.685	[0.7090 – 1.6882]
10 or More Members	0.9517	0.864	[0.5395 – 1.6789]
Food Shortage			
No	Reference Category		
Yes	1.0473	0.737	[0.7996 – 1.3720]
Other	1.3303	0.749	[0.2318 – 7.6361]
_cons	2.7941	0.019	[1.1805 – 6.6131]

The table 8 above shows the third adjusted logistics regression of odds ratios among the SCSR DG applicants by demographic and household characteristics in South Africa. This model consists of 9 of the 14 independent variables: Age Group, Sex, Population Group, Province, Other Household Grants, Dwelling type, Access to water and Electricity, Number

of Household Members and Food Shortage. The Likelihood Ratio χ^2 of 30 degrees of freedom is 82.20 with a p-value of 0.0000 indicates that the adjusted model fits the data significantly. The category age groups show that applicants aged 31 – 35 (CI- [0.2095 – 0.5089]) are 0.3265 less likely to receive the COVID-19 SRD grant as compared to those aged 18 – 20. While Females (CI - [0.4778 – 0.8119]) are 0.6229 less likely to receive the grant when compared to males.

Northern Cape (CI- [0.5128 – 2.1266]), North West (CI- [0.6115 – 2.3040]) and Limpopo (CI- [0.7924 – 2.2371]) are the only three provinces whose odds for receiving the COVID-19 SRD grant increase when compared to the reference category, Gauteng, by a factor of 1.0442, 1,1871 and 1.1424 respectively. Traditional (CI- [0.4871 – 1.1774]) and Informal (CI- [0.4290 – 1.0567]) dwelling applicants are 0.7573 and 0.6736 respectively, less likely to receive the SCSRDG when compared to formal dwelling applicants.

Applicants that have access to electricity only (CI- [0.7869 – 1.33108]) are 1.6140 more likely to receive the SCSRDG when compared to those that have no access, while those that have access to water only (CI- [0.3470 – 2.5892]) are 0.9478 less likely in comparison to the reference category. The odds of receiving the COVID-19 SRD grant for an applicant from a household with 1 – 3 members and 4 – 6 members increase by a factor of 1.0080 and 1.0941 respectively, when compared to an applicant from a household with 1 - 3 members. Lastly, an applicant who has suffered a food shortage (CI- [0.7996 – 1.3720]) is 1.0473 more likely to receive the COVID-19 SRD grant when compared to an applicant that did not suffer any food shortage.

Table 9: Model 4 Adjusted Logistic Regression Showing Odds Estimates of the Special COVID-19 SRD grants applicants by population characteristics in South Africa

Adjusted Model 4 LR Chi (24) = 73.80 P-Value = 0.0000 Pseudo R ² =0.0505			
Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Demographic Characteristics			
Age Group			
18 – 20 Years	Reference Category		
21 – 25 Years	0.5361	0.04	[0.3524 – 0.8154]
26 – 30 Years	0.3915	0.000	[0.2500 – 0.6129]
31 – 35 Years	0.3640	0.000	[0.2330 – 0.5686]
Sex			
Male	Reference Category		
Female	0.6204	0.000	[0.4768 – 0.8072]
Province			
Gauteng	Reference Category		
Eastern Cape	0.7804	0.369	[0.4541 – 1.3411]
Northern Cape	0.8206	0.561	[0.4214 – 1.5980]
Free State	0.6068	0.103	[0.3331 – 1.1055]
KwaZulu- Natal	0.9277	0.710	[0.6243 – 1.3786]
North West	1.2205	0.551	[0.6342 – 2.3485]
Western Cape	0.3644	0.005	[0.1799 – 0.7381]
Mpumalanga	0.9795	0.933	[0.6044 – 1.5875]
Limpopo	1.4463	0.154	[0.8703 – 2.4034]
Marital Status			
Married/cohabiting	Reference Category		
Single	1.3129	0.111	[0.9390 – 1.8355]
Household Characteristics			
Other Household grants			
No grant received	Reference Category		
1 – 5 grants received	0.8696	0.416	[0.6211 – 12175]
More than 5 grants received	0.9082	0.810	[0.4149 – 1.9877]
Other	0.9032	0.802	[0.4082 – 1.9983]

Independent Variable	Odds Ratio	P> z	95% Conf. Interval
Dwelling Type			
Formal	Reference Category		
Traditional	0.7566	0.206	[0.4909 – 1.1662]
Informal	0.6161	0.022	[0.4069 – 0.9330]
Other	1.5489	0.374	[0.5956 – 4.0626]
Number of Household Members			
1 – 3 Members	Reference Category		
4 – 6 Members	0.9983	0.993	[0.7001– 1.4236]
7 – 9 Members	1.1241	0.595	[0.7299– 1.7311]
10 or More Members	0.9614	0.891	[0.5474 – 1.6883]
Food Shortage			
No	Reference Category		
Yes	1.0433	0.756	[0.7980 – 1.3641]
Other	1.3266	0.753	[0.2286 – 7.6999]
_cons	2.8634	0.001	[1.5302 – 5.5382]

The table 9 above shows the fourth adjusted logistics regression of odds ratios among the SCSRDG applicants by demographic and household characteristics in South Africa. This model only includes 8 of the 14 independent variables. The Likelihood Ratio Chi² of 24 degrees of freedom is 73.80 with a p-value of 0.0000 indicating that the adjusted model fits the data significantly. The youth aged 26 – 30 (CI- [0.2500 – 0.6129]) are 0.3914 less likely to receive the COVID-19 SRD grant as compared to those aged 18 – 20. Females (CI - [0.4769 – 0.8072]) are 0.6204 less likely to receive the grant when compared to males.

Applicants from Limpopo Province (CI- [0.8702 – 2.4034]) are 1.4463 more likely to receive the COVID-19 SRD grant, while applicants from Western Cape (CI- [0.1799 – 0.7381]) are 0.3644 less likely to receive the grant when compared to the reference category, Gauteng. An applicant who is single (CI- [0.9391 – 1.8355]) is 1.3128 more likely to receive the COVID-19 SRD grant when compared to a married/cohabiting applicant.

An applicant from a household that receives 1 – 5 other household grants, is 0.8696 less likely to receive the COVID-19 SRD grant when compared to an applicant from a household that does not receive any of the other grants. Being an applicant who resides in a traditional dwelling (CI- [0.4909 – 1.1662]) decreases the likelihood of receiving the grant by a factor of 0.7566 when compared to an applicant from a formal dwelling.

The odds of receiving the COVID-19 SRD grant for an applicant from a household with 7 – 9 members increase by a factor of 1.1240 when compared to an applicant from a household with 1 - 3 members. Lastly, an applicant who has experienced a food shortage (CI- [0.7981 – 1.3641]) is 1.0433 more likely to receive the COVID-19 SRD grant when compared to an applicant who did not experience any food shortage.

4.2 Test for Goodness-of-fit

Hosmer and Lemeshow's test was used as the goodness of fit test to determine how well the model fits the data used in the study. A good fit was determined by a large p-value. The goodness of fit results show that the Hosmer-Lemeshow chi-square with a degree of freedom of 8 is 3.16 with a P-value of 0.9237 for all the independent variables, this shows that the data adjusted binary regression models fit the data reasonably.

4.3 Test for Multicollinearity

4.3.1 Pairwise Correlation

A correlation coefficient matrix is used to examine the level of collinearity among the study variables. A pairwise correlation coefficient between two predictor variables below 65%, can be used to estimate that there is no presence of multi-collinearity between the predictor variables and that the predictor variables are not highly correlated with each other. Table 11 in the appendix shows the correlation coefficient matrix of the predictor variables. Age group is significantly correlated with Sex, marital status, and number of household members. The variable population group is significantly correlated with the variable province and marital status. While the variable other household grant is significantly correlated with employment status and access to water and electricity.

4.3.2 Variance Inflation Factor (VIF)

The Variance Inflation Factor (VIF) was used to measure the strength of the correlation between the independent variables. Where a variable with a VIF value exceeding 4 was considered to indicate multicollinearity. Table 12 in the appendix shows the results of the Variance Inflation Factor output. The following variables have a VIF exceeding four for at least one of the response categories, Other Household grants, employment status, access to water and electricity, main source of income and marital status.

Chapter 5: Discussion

The objective of this study was to explore the associations of demographic, socio-economic, and household factors with the uptake of the Special COVID-19 Social Relief of Distress Grant among youth aged 18 -35 years in South Africa. This study found a positive association between only one demographic and one household characteristic with the uptake of the SCSR DG. Among the 14 characteristics assessed, this study found a positive association to exist between marital status and multiple grant recipients with the outcome variable.

The study found that the uptake of the SCSR DG is higher in the age group 21 – 25 years. In South Africa, the age group 21 – 25 years is the average graduating age group and accounts for the highest level of enrolment in higher education institutions at over 41% (Department of Higher Education and Training, 2021). A study by Kauppinen and colleagues describes leaving your parental home at this age as leaving your parental home early and this is strongly associated with unemployment and receiving social assistance (Kauppinen et al., 2014)

The introduction of the SCSR DG as a temporary provision of assistance for people who were in need and could not meet their family's most basic needs in South Africa during the pandemic has brought forth a special population group that has always been excluded from most of the government social assistance programmes. This is the unemployed working age population, not only is this population group special but it is also vulnerable, in the sense that they have reached their independence age but are financially dependent.

The economic fallout because of the COVID-19 pandemic led to a high number of jobs and income losses for many South Africans living in poverty. Although the SCSR DG was for those affected by economic fallout, it followed a means test approach and had qualifying criteria in place. One of the qualifying criteria when the grant was first introduced was that to receive the grant, the applicant should be of working age, and not have any source of income including social grants and unemployment insurance benefits.

The multivariate unadjusted regression of this study shows that an unemployed applicant is more likely to receive the grant when compared to an employed applicant. This is best explained by the above qualifying criteria for receiving the grant. During the application verification process, the South African Social Security Agency checked and verified the bank

statements of the applicants to ensure that the applicant was not employed or receiving any income. However, with the change in the administration of the grant, the above criterion was changed to say that an applicant must not be entitled to a social grant for himself or herself (South African Social Security Agency, 2023). This meant that those who were receiving the Child Support Grant, Foster Child Grant and the Child Dependency Grant were now eligible to apply for the SCSR DG. The rapid assessment of the implementation and utilisation of the special COVID-19 SRD grant by the Department of Social Development, 2021, indicated that over 70% of the grant applicant were unemployed even before the COVID-19 pandemic, given the COVID-19 restrictions in the country there was little chance for applicants to find employment (Department of Social Development, 2021). This shows that the issue of unemployment among the youth was already there before the COVID-19 era.

Most of the youth had secondary school as their highest educational level, which makes it even more difficult for them to enter the labour market, since the early 2000 there has been a decrease and minimal growth in the employment of unskilled labour, mainly due to technological advancement (Graham-et-al, 2015). Graduate unemployment estimated at 8% is not a major area of concern but youth with less than matric unemployment which is estimated at 55% is an area of concern (Graham-et-al, 2015). A study by Meyer, 2017, that looked at possible solutions to improve the employability of the youth entrepreneurship training and development is a possible solution to the current South African youth unemployment issue ((Meyer, 2017).

The study also found that females were less likely to receive the SRD grant when compared to males. The study also revealed that males account for over 63% of the SRD grant applicants. This is consistent with the implementation and utilisation of the SCSR DG assessment conducted by the Department of Social Development in 2021 and the NIDS-CRAM wave 3 synthesis report (Spaull-et-al, 2021). Not only are Females less likely to receive the SCSR DG and the Unemployment Insurance Fund (UIF) but they are more prone to poverty despite accounting for the largest number of unemployed youth when compared to males (Posel & Rogan, 2012; Spaull-et-al, 2021).

Females on the other hand are dominating when it comes to other grants such as the Child Support Grant, and as a result, they were restricted from accessing the SCSR DG (Spaull-et-al, 2021). This presents a gender bias in the South African social assistance system since the

child support grant received by the female adults is for their children (Spaull-et-al, 2021). Meaning that the CSG cash transfer needs to be shared between the mother and the child.

This study found that the African/Black population group accounted for most of the special COVID-19 SRD Grant applicants at 90 percent. Coloured, Asian/Indian, and white population groups are all less likely to receive the SCSR DG when compared to the African/black population group. The high uptake levels of the SCSR DG by the African/Black population group reflect the extent of poverty among this population group (Department of Social Development, 2021). The African/Black population experienced the highest rate of both household and child hunger during COVID-19, this was worsened by the removal of the top-up on the child support grant and the old age grant (Spaull-et-al, 2021.; Jacobs, 2017; Statistics South Africa, 2015).

This is further supported by findings from Gradin, 2013, which aimed to explain why poverty and material deprivation in South African are significantly higher among those of African descent than among whites, which found that the apartheid system left a legacy of huge differences in poverty across ethnic groups with African/Black population group dominating the lower poverty line (Gradin, 2013). This can to some extent be explained by the income difference between the population groups. In a study that looked at race and income distribution among three countries, Gradin found that Black/Africans had the lowest income when compared to whites, with the income margin in South Africa being the largest (Gradin, 2014)

There is variation when it comes to the uptake of the SRD grant across provinces with Gauteng followed by Kwa-Zulu Natal having the highest number of applicants. Although this corresponds with the population distribution it is inconsistent with the provincial unemployment rate (Statistics South Africa, 2022a). According to Statistics South Africa, quarterly labour force survey Eastern Cape and Free State have the highest levels of unemployment in the country (Statistics South Africa, 2022a). The reason for this might be that even those who are not job seeking could have applied for the grant, this includes students of working age.

The results from all four multivariate unadjusted regression models indicate that only applicants from North West are more likely to receive the SRD grant when compared to Gauteng province applicants. This is consistent with findings by Neves and colleagues in their study which looked at the use and effectiveness of social grants in South Africa,

although they found that North West does not have significant explanatory power in the receipt of social grants, it is part of the top four provinces with the highest number of adult poverty (Statistics South Africa, 2017a.; Neves et al., 2009).

The study also found that in 2 out of the 3 multivariate adjusted regression models an applicant that comes from a household that received 1 – 5 times of other grants is also less likely to receive the SRD grant when compared to an applicant that comes from a household that does not receive any government grant. This is inconsistent with other studies by (Anyanwu, 2014; Heggebø et al., 2020; Meyer & Nishimwe-Niyimbanira, 2016). In their study, Heggebø and colleagues found that an individual from a family with both parents receiving grants is more likely to be a grant recipient (Heggebø et al., 2020). The reason for this is that households that are already receiving grants from the government are poor and usually combine their incomes for survival (Meyer & Nishimwe-Niyimbanira, 2016).

Social grants assist and improve the wellbeing of the recipient as well as their family members, this is because recipients of the grants use the money for the benefit of everyone in the household (Mokoena & Ngwakwe, 2022; Biyase, 2018). Three out of the four multivariate adjusted regression models where the variable number of household members was included indicate that an applicant from a household with 7 – 9 family members is more likely to receive the grant when compared to an applicant from a household with 1 – 3 family members. The study also revealed that over 24 percent of the SRD recipients are from a family of 7 – 9 members. This is consistent with the literature, Anyanwu found that adding a member to a household increases the probability of poverty in a household (Anyanwu, 2014). The DSD also found that most of the SRD grant applicants are from a household with 4 family members (Department of Social Development, 2021). Another study indicates that out of those who received the SRD grant 89% of them reported that the grant made a positive impact in their lives and a further 80% indicated that the grant made a positive impact in the lives of their household members (Mokoena & Ngwakwe, 2022).

Neves and colleagues also found that many impoverished households are formed around a social grant recipient and that households that receive social grants are usually large in size and have a demographic effect which includes attracting unemployed family members into the household (Neves et al., 2009). Literature also indicates because of the low family income among these households, income pooling among grants recipients is common and is strongly associated with welfare improvement of household members (Neves et al., 2009).

Informal dwelling is usually associated with shacks in informal settlements or in backyards while traditional dwelling is associated with rural areas and lack of services. The study found when all 14 independent variables are included in the model an applicant who resides in an informal dwelling unit is more likely to receive the SRD grant when compared to those who reside in formal dwelling units and that applicants that reside in traditional units were also more likely to receive the grant when compared to those who reside in formal dwelling units. This is because people in informal settlements and rural areas are the most affected by poverty, according to a report on poverty trends in South Africa, urban areas are less affected by poverty when compared to rural areas (Statistics South Africa, 2017).

This can be explained by the lack of basic services in rural areas, having access to water and electricity can assist with finding employment and can also assist with other income generating activities, like running a car wash. The COVID-19 SRD grant application process was only electronic and required access to a computer or a smartphone, which both use electricity as the power source. The study found that applicants who have access to water only, electricity only and both water and electricity are more likely to receive the SRD grant when compared to those with no access to water and electricity. This is because those that have access to electricity were able to get information about the grant in real time. Literature also points out that in some cases the SRD COVID-19 grant was used to pay for water and electricity (Mokoena & Ngwakwe, 2022).

The study also found that applicants from a household with a government grant as the main source of income are more likely to receive the COVID-19 SRD grant when compared to those who are from households with no income. The study further indicated that most of the applicants reported government grants as their main source of income. This is consistent with Statistics South Africa, 2022, the general household survey that reported grants as the main source of income for over 52% of households (Statistics South Africa, 2022). Government grants remain the main source of income for poor households and have proven to have a positive impact on poor households, such as reducing poverty and encouraging school attendance and enabling job seeking (Armstrong et al., 2008).

Literature indicates that the COVID-19 pandemic had a negative impact on food security, especially for impoverished households, which at some point or another suffered food shortages (Vanleeuw et al., 2022; Mokoena & Ngwakwe, 2022). When controlling for other variables 2 out of 3 of the multivariate adjusted models of this study found that an applicant

from a household that had encountered food shortage is more likely to receive the SRD grant when compared to one that has not encountered any food shortage. Only 35% of the applicants reported a shortage of food in their households. This is consistent with other studies including the Study by Spaull and colleagues which found that child hunger increased drastically during the national lockdown (Spaull-et-al., 2021). The rapid assessment by the Department of Social Development also indicated that almost 50 percent of the applicants reported a shortage of money to buy food (Department of Social Development, 2021). Food shortage had a negative impact on the social and wellbeing of the applicants during the lockdown, and the removal of the top-up on the social grants contributed to this greatly (Van der Berg et al., 2021; Department of Social Development, 2021).

The series of lockdowns to curb the spread of the virus exacerbated food shortages in poor households, in addition to the R350 COVID-19 grant the government also assisted poor households with food parcels to mitigate the impact of the Coronavirus pandemic (Van der Berg et al., 2021). Most of the special COVID-19 SRD grant money was put to good use and helped to improve the wellbeing of the household, a study by Mokena and Ngwakwe, 2022, on the Government COVID-19 Social Grant in South Africa indicates that over 93 percent of the COVID-19 SRD grant was used by the recipient to buy food for the household (Mokoena & Ngwakwe, 2022).

This study used four different multivariate adjusted regression models to control the high variance of the estimated coefficients because of the multicollinearity of the independent variables. In each model, the highly correlated variables were interchanged. The first model contains all the independent variables used in this study and has a Pseudo R^2 of 0.4738. This model was improved by dropping five highly correlated independent variables. The following variables were dropped from the first model to improve the model Pseudo R^2 to 0.7963; population group, highest educational level, other household grants, food shortage and access to water and electricity. The resultant model is considered the better model as removing and interchanging remaining independent variables does not improve the model Pseudo R^2 further.

This gives support to the adapted conceptual framework which is adapted from the Sustainable livelihood framework. The conceptual framework shows how the interaction between people's livelihood assets can help them achieve their livelihood outcomes. The outcome may be reduced vulnerability and improved food security. In this study, the different

demographic, socio-economic and household characteristics that represent the assets of the individual interact with one another to achieve the livelihood outcome of receiving the Special COVID-19 SRD grant. It is also important to note that the independent variables or the assets do not carry the same amount of influence towards the livelihood outcome. This is best explained by the change in the likelihood of the independent variable in each model in the absence of other variables.

CHAPTER 6: CONCLUSIONS, RECOMMENDATIONS AND POLICY IMPLICATIONS

6.1. Conclusion

In conclusion, this study shows similar results as other studies conducted on the uptake of the Special COVID-19 Social Relief of Distress Grant in South Africa. This study has identified some demographic and household characteristics that are associated with the uptake of the Special COVID-19 Social Relief of Distress Grant among the youth aged 18 – 35 years in South Africa. Marital status and multiple grants recipients are the two characteristics that were found to be statistically associated with the uptake of the special COVID-19 SRD grant, with those who are married less likely to receive the grant and those who are from households that receive multiple grants more likely to receive the COVID-19 SRD Grant.

The study found that males as compared to females are more likely to receive the SRD grant. The sex of the grant recipient is very important, literature has pointed out that female grant recipients tend to manage and control the grant more efficiently than males (Rommelzwaal et al., 2018). The initial qualifying criteria that excluded applicants who were receiving social grants on behalf of others, especially females who were receiving the child Support Grant introduced a gender bias to the grant, however, this was later rectified when the qualifying criterion was changed to say that an applicant should not be entitled to a social grant for him/herself.

Unemployment in South Africa is on the rise, leaving more and more people to depend on government assistance. The COVID-19 pandemic economic fallout has resulted in more than 3 million job losses in the country, with females accounting for over 58% of the net job losses (Spaull et al., 2020). The COVID-19 SRD grant was the first grant in the country that catered for the unemployed citizens of the working age group, although it was temporary assistance for the duration of the pandemic. A more permanent and sustainable assistance targeted at this population is needed.

Issues of employment go together with the issues of education attainment, this study found that over 97% of the SRD recipients have secondary education as their highest level of education. Higher educational attainment is associated with a better paying job, during the pandemic unskilled and those less educated experienced the highest job losses (Heggebø et

al., 2020; Spaull-et-al., 2020). Most of the SCSRDG recipients only have secondary school as their highest level of education, which presents a problem of unemployability, especially in the skilled and professional sectors. The fourth industrial revolution is going to impact the labour market significantly with some skills becoming obsolete while other workers will have to adapt their skills or learn new skills to keep up with the technology. This is going to worsen the issue of youth employment especially, among those with less than matric.

Population groups is another demographic characteristic of major concern when it comes to the uptake of social grants, this is because of the legacy of the apartheid system that has left huge social difference across population groups. There is more work that needs to be done as far as affirmative action to correct the historical past and inequality is concerned. This study deals with the issues of social grants in an era of a pandemic that has reversed the progress made against poverty over the past 25 years, not just in South Africa but globally. The introduction of a new short-term social grant was necessary and much needed to protect people's health, jobs and income and will assist the poor from falling deep into poverty (United Nations, 2022a). These social grants issues especially among the youth are very important to the achievement of the Sustainable Development Goals (SDGs) and require urgent attention and constant monitoring.

Most of the grant applicants are from provinces with metropolitan municipalities, which indicates a strong urban bias. This contradicts the South African poverty profile through geographic location lenses. Provinces with metropolitan municipalities tend to have higher education levels, and better access to infrastructure and technology (Department of Social Development, 2021). While Provinces without metropolitan are primarily rural and lack the basic services in some parts. Basic services such as water and electricity form part of the South African Social Safety net. Applicants who have access to both electricity and water have the highest ratio odds of receiving the grants. This is because the application for the grant was electronic and required an electronic device such as a computer or a smartphone. Electricity was essential to communicate the information regarding the SRD grant, most of the applicants utilised the USSD channel to apply for the grant (Mokoena & Ngwakwe, 2022; Department of Social Development, 2021).

This study has provided insight into the demographic, socio-economic and household characteristics of the Special COVID-19 SRD grant recipients aged 18 – 35, this insight helps address the issue of poverty and unemployment facing this special population group. The

recommendations of this are in line with the findings of this study and can assist greatly in the development and implementation of the Basic Income Grant. This study has also highlighted the issue of gender bias when it came to the implementation of the Special COVID-19 SRD Grant, an issue that needs to be attended to when it comes to the development of the Basic Income Grant.

6.2. Strength of the study

This is one of the studies in South Africa to explore the association of demographic, socio-economic and household characteristics with the uptake of the Special COVID-19 Social Relief of Distress Grant using a qualitative approach with a national representative sample. Using the quantitative approach, the study was able to produce four multivariate adjusted binary regression models, to predict the likelihood of an applicant to receive the SCSR DG grant. No other study in South Africa has explored this association using four different models. The four models are examples of different scenarios that will assist policymakers in South Africa in planning, developing and implementing sustainable programmes targeted at the youth with different characteristics.

6.3. Limitations

The study (NIDS-CRAM) offered R40 in airtime for participating in the study and an entry into the lucky prize draw for 1 of 3 R4000 in-store vouchers. Although this may encourage participation it also presents a limitation in that participants might be doing it for the airtime and entry into the prize draw, meaning that the responses given might not be factual. Another limitation of the data is that the question on marital status “*Do you have a partner or are you married (including traditional marriage)?*” does not make a provision for divorced and widows. The response is limiting the respondent to being single or married, this affects the profiling of divorced and widows in this study. Lastly, the study does not speak to the portion of females whose application for the Special COVID-19 SRD Grant was declined, because of them receiving the Child Support Grant or any other grant for that matter.

6.3. Recommendations

The high inflation rates and the unemployment rates suggest that going forward only a few people will be able to afford to provide for their families, while the proportion of those living in poverty increases. South Africa needs to develop permanent strategies that are aimed at the unemployed working age population to protect them from falling deeper into the pockets of poverty. It is fundamental for the country to consider the needs of this population to improve their welfare and access to social services.

It is against this background that this study recommends that the Department of Social Development together with the South African Security Agency develop and implement the Basic Income Grant (BIG) that will replace the Special COVID-19 Social Relief of Distress Grant going forward. In a study that compared options to replace the special COVID-19 SRD and reduce poverty in the country by Goldman and colleagues, they argue that the basic income grant although it comes at a great cost will have the greatest impact on poverty as compared to the newly proposed family poverty grant (Goldman et al., 2021). The main difference between the two grants is that the family Poverty grant is aimed at households that have a monthly income below the poverty line while the basic income grant is simply the extension of the Special COVID-19 SRD grant to include the CSG caregivers with a different qualifying age and income threshold (Goldman et al., 2021).

This is further supported by Mokoena and Ngwakwe who argue that the basic income grant has the potential to alleviate extreme poverty and is easier to implement as compared to any other household related income grant (Mokoena & Ngwakwe, 2022). Furthermore, it is also recommended that for the Basic Income Grant to have desired impact on poverty it should not be pitched at the current amount of the special COVID-19 SRD grant of R350, the amount should be revised to be in line with the food poverty line of R624 per month (Goldman et al., 2021; Senona et al, 2021; Statistics South Africa, 2021).

Lastly, this study recommends that the Department of Labour together with the Department of Public Works relook at the design of the Extended Public Works Programme (EPWP). Currently, participants are randomly selected, and there are no job security and fringe benefits for participating in the programme (Hlatshwayo, 2017). The EPWP is a great programme in the sense that it has dual benefits, it provides employment and two it provides training, this study therefore, recommends that participation in the programme should be

targeted (Goldman et al., 2021; Hlatshwayo, 2017). A priority index matrix should be part of the selection process, this matrix should prioritise according to age, gender, education level, number of dependents and other poverty indicators.

6.4. Contribution to Existing Policy, Programme Implications and Future Research

This study is beneficial to both the Department of Social Development (DSD) and the South African Social Security Agency (SASSA). The special COVID-19 SRD Grant when first introduced was administered under the Disaster Management Act as the country had declared a national state of disaster. This was until the uplifting of the national state of disaster that saw the grant being administered by the DSD under regulations. The Social Assistance Act 13 of 2004 and the South African Social Security Agency Act 9 of 2004 do not explicitly cater for the Social Relief of Distress grant. The introduction of the proposed basic income grant will require a review and amendments to the Social Assistance Act.

Further research is important that outlines the extent of the impact that the COVID-19 SRD had on the lives of the poor and gives an understanding of those who qualify for the grant but did not apply for it. The impact assessment will assist in the development of other programmes that will assist the impoverished and help them out of poverty. A projection on the future uptake of the grant will also assist the Minister of Finance and the entire finance portfolio in better planning and budget allocation.

References

- Adaiah, Bhorat, H., Jabulile, Thornton, A., & Zee, K. V. der. (2017, March 31). *Socio-Economic Determinants of Crime in South Africa: An Empirical Assessment*. Africa Portal; Development Policy Research Unit (DPRU).
<https://www.africaportal.org/publications/socio-economic-determinants-crime-south-africa-empirical-assessment/>
- Anyanwu, J. C. (2014). Marital Status, Household Size and Poverty in Nigeria: Evidence from the 2009/2010 Survey Data. *African Development Review*, 26(1), 118–137.
<https://doi.org/10.1111/1467-8268.12069>
- Armstrong, P., Lekezwa, B., & Siebrits, K. (2008). *Poverty in South Africa: A profile based on recent household surveys*.
- Bäckman, O., & Bergmark, Å. (2011). *Escaping welfare? Social assistance dynamics in Sweden*. Retrieved March 8, 2023, from <https://0-journals-sagepub-com.innopac.wits.ac.za/doi/abs/10.1177/0958928711418855>
- Baird, S., Ferreira, F. H. G., Özler, B., & Woolcock, M. (2013). Relative Effectiveness of Conditional and Unconditional Cash Transfers for Schooling Outcomes in Developing Countries: A Systematic Review. *Campbell Systematic Reviews*, 9(1).
<https://www.proquest.com/docview/1773958619/abstract/7D17F4418A1B411DPQ/1>
- Biyase, M. (2018). Assessing the impact of social grants on household welfare using morning after simulation and PSM approach. *MPRA Paper*, Article 84477.
<https://ideas.repec.org/p/pramprapa/84477.html>
- Britannica. (2022). *South Africa | History, Capital, Flag, Map, Population, & Facts*. Retrieved June 20, 2022, from <https://www.britannica.com/place/South-Africa>

Department of Higher Education and Training. (2021) - *Fact Sheet on Age for Students in PSET Institutions.pdf*. (2021). Retrieved December 16, 2022, from <https://www.dhet.gov.za/Information%20Systems%20Coordination/Fact%20Sheet%20on%20Age%20for%20Students%20in%20PSET%20Institutions.pdf>

Department of Justice and Constitutional Development. (2015). *The Constitution of the Republic of South Africa, 1996: As adopted on 8 May 1996 and amended on 11 October 1996 by the Constituent Assembly*

Department of Social Development. (2021) -*The Rapid Assessment of the Implementation and Utilisation of the Special COVID-19 Social Relief of Distress Grant*. (2021). Retrieved May 30, 2022, from <https://www.dsd.gov.za/index.php/latest-news/21-latest-news/410-the-rapid-assessment-of-the-implementation-and-utilisation-of-the-special-COVID-19-social-relief-of-distress-grant>

DFID. (2001). Department for International Development – sustainable livelihoods sheets

Retrieved July 22, 2022, from <https://www.livelihoodscentre.org/documents/114097690/114438878/Sustainable+livelihoods+guidance+sheets.pdf/594e5ea6-99a9-2a4e-f288-cbb4ae4bea8b?t=1569512091877>

Dowman, C. S. (2014). INVESTIGATING SOCIAL GRANT PAYMENT METHODS FOR OLD AGE GRANT RECIPIENTS IN THE WESTERN CAPE.

Dubihlela, J., & Dubihlela, D. (2014). Social Grants Impact on Poverty among the Female-Headed Households in South Africa: A Case Analysis. *Mediterranean Journal of Social Sciences*, 5(8), 160.

Gentilini, U., Almenfi, M. B. A., Iyengar, T. M. M., Okamura, Y., Downes, J. A., Dale, P., Weber, M., Newhouse, D. L., Rodriguez Alas, C. P., Kamran, M., Mujica Canas, I. V., Fontenez, M. B., Asieduah, S., Mahboobani Martinez, V. R., Reyes Hartley, G. J.,

Demarco, G. C., Abels, M., Zafar, U., Urteaga, E. R., ... Aziz, S. (2022). *Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures*. World Bank. <https://openknowledge.worldbank.org/handle/10986/37186>

Goldman, M., Bassier, I., Budlender, J., Mzankomo, L., Woolard, I., & Leibbrandt, M. (2021). Simulation of options to replace the special COVID-19 Social Relief of Distress grant and close the poverty gap at the food poverty line. *WIDER Working Paper Series*, Article wp-2021-165. <https://ideas.repec.org/p/unu/wpaper/wp-2021-165.html>

Gradin, C. (2013). Race, Poverty and Deprivation in South Africa. *Journal of African Economies*, 22(2), 187–238. <https://doi.org/10.1093/jae/ejs019>

Gradín, C. (2014). Race and Income Distribution: Evidence from the USA, Brazil and South Africa. *Review of Development Economics*, 18(1), 73–92. <https://doi.org/10.1111/rode.12070>

Graham, L. (2015). Retrieved August 22, 2023, from https://d1wqtxts1xzle7.cloudfront.net/39903028/ChildGauge2015-lowres-libre.pdf?1447254878=&response-content-disposition=inline%3B+filename%3DParenting_poverty_and_young_people_in_So.pdf&Expires=1692672517&Signature=NHNoCUM07b0BeZILVunsWIWwhedGz5mWOdcY8dbktVn~1AppIAkZ-sYlfD1-8BG75ewp6yCM5GINZmtrr4eCDuHhWQcDJKiyy4QSJl5vcah0UMtSeSPO56HfY1WYQctKbqXNSTk0~xtjz1101VxUj0KuXMc5vUiRHYHx~JqQRSoQTi7ypzXDbYxGeTpbKR7zBOqhxnkxPosbvSDOkpopxlC3yYFzZoLqr6~PNf2jLObvm1PNGKpUbqAX7JdeZQq~UD2XAvv4n4gxOk6rG12Yc9Iu05A7ttaXp12vE-5dkQz1f9~X3AJzySw1Cmbu-3p~6UPcOO0vcigE4Spp7~w__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA#page=53

Hall, K., & Sambu, W. (2018). *Income poverty, unemployment, and social grants*. 7.

- Heggebø, K., Dahl, E., & van der Wel, K. A. (2020). Disentangling the dynamics of social assistance: A linked survey—Register data cohort study of long-term social assistance recipients in Norway. *PLOS ONE*, 15(3), e0230891.
<https://doi.org/10.1371/journal.pone.0230891>
- Hickey, S., Lavers, T., Niño-Zarazúa, M., & Seekings, J. (2018). *The Negotiated Politics of Social Protection in Sub-Saharan Africa* (SSRN Scholarly Paper No. 3135701). Social Science Research Network. <https://papers.ssrn.com/abstract=3135701>
- Hlatshwayo, M. S. (2017). The Expanded Public Works Programme: Perspectives of direct beneficiaries. *The Journal for Transdisciplinary Research in Southern Africa*, 13(1), e1–e8. <https://doi.org/10.4102/td.v13i1.439>
- Jacobs, M. (2017). *Public-private sector wage differentials and household poverty among Black South Africans*.
- Kauppinen, T. M., Angelin, A., Lorentzen, T., Bäckman, O., Salonen, T., Moisio, P., & Dahl, E. (2014). Social background and life-course risks as determinants of social assistance receipt among young adults in Sweden, Norway and Finland. *Journal of European Social Policy*, 24(3), 273–288. <https://doi.org/10.1177/0958928714525818>
- Köhler, T., & Bhorat, H. (2020). *COVID-19, social protection, and the labour market in South Africa are social grants being targeted at the most vulnerable?*
http://www.dpru.uct.ac.za/sites/default/files/image_tool/images/36/Publications/Working_Papers/DPRU%20WP%20202008.pdf
- Kerr, A., Ardington, C., & Burger, R. (2020). Sample design and weighting in the NIDS-CRAM survey. 7.
- Mackett, O. (2020). Social Grants as a Tool for Poverty Reduction in South Africa? A Longitudinal Analysis Using the NIDS Survey. *African Studies Quarterly*, 19(1), 41–63.

- Meyer, D. F., & Nishimwe-Niyimbanira, R. (2016). The impact of household size on poverty: An analysis of various low-income townships in the Northern Free State region, South Africa. *Etude de La Population Africaine*, 30(2). <https://doi.org/10.11564/30-2-811>
- Meyer, N. (2017) Retrieved August 22, 2023, from
<https://repository.nwu.ac.za/bitstream/handle/10394/27470/2017South%20Africa.pdf?sequence=1&isAllowed=y>.
- Mokoena, S., & Ngwakwe, C. (2022). Government's COVID-19 Social Grant in South Africa: A Synopsis of the Effect on Recipients. *HOLISTICA – Journal of Business and Public Administration*, 13(2), 93–101. <https://doi.org/10.2478/hjbpa-2022-0017>
- Mood, C. (2013). Social Assistance dynamics in Sweden: Duration dependence and heterogeneity. *Social Science Research*, 42(1), 120–139.
<https://doi.org/10.1016/j.ssresearch.2012.07.005>
- Neves, D., Samson, M., van Niekerk, I., & Hlatshwayo, S. (2009). *The use and effectiveness of social grants in South Africa*. 110.
- Ncube, N., Tanga, P. T., & Bhumira, B. (2014). The Impact of De-agrarianisation on the Socio-economic Well-being of Rural Inhabitants in South Africa. *Journal of Human Ecology*, 48(3), 399–406. <https://doi.org/10.1080/09709274.2014.11906810>
- Osborne, J. W. (2008). *Best Practices in Quantitative Methods*. SAGE.
- Owusu-Addo, E., Renzaho, A. M. N., & Smith, B. J. (2018). The impact of cash transfers on social determinants of health and health inequalities in sub-Saharan Africa: A systematic review. *Health Policy and Planning*, 33(5), 675–696.
<https://doi.org/10.1093/heapol/czy020>

Posel, D., & Rogan, M. (2012). Gendered trends in poverty in the post-apartheid period, 1997–2006. *Development Southern Africa*, 29(1), 97–113.

<https://doi.org/10.1080/0376835X.2012.645645>

Remmelzwaal, S., Horn, A., & Wustrow, I. (2018). *Do social grants affect the decision to look for work?*

SARPN - South Africa. (2020). Retrieved July 24, 2022, from

https://sarpn.org/documents/d0001041/sum_report.php

South African Government. (2012). *National Development Plan 2030: Our future—Make it work* Retrieved May 30, 2022, from <https://www.gov.za/documents/national-development-plan-2030-our-future-make-it-work>

South African Social Security Agency. (2023). *08 March 2023 ENGLISH YOU AND YOUR GRANTS 2022-23.pdf*. (n.d.). Retrieved August 21, 2023, from <https://www.sassa.gov.za/publications/Documents/08%20March%20%202023%20ENGLISH%20YOU%20AND%20YOUR%20GRANTS%202022-23.pdf>

Spaull et-al. (2020). *NIDS-CRAM-Wave-2-Synthesis-Report.pdf*. (2020). Retrieved December 18, 2022, from <https://cramsurvey.org/wp-content/uploads/2020/10/1.-Spaull-et-al.-NIDS-CRAM-Wave-2-Synthesis-Report.pdf>

Spaull -et-al. (2021). *NIDS-CRAM-Wave-3-Synthesis-Report.pdf*. (n.d.). Retrieved March 10, 2023, from <https://cramsurvey.org/wp-content/uploads/2021/02/1.-Spaull-N.-Daniels-R.-C-et-al.-2021-NIDS-CRAM-Wave-3-Synthesis-Report.pdf>

Posel, D., & Rogan, M. (2012). Gendered trends in poverty in the post-apartheid period, 1997–2006. *Development Southern Africa*, 29(1), 97–113.

<https://doi.org/10.1080/0376835X.2012.645645>

Statistics South Africa. (2017). *Poverty trends in South Africa: An examination of absolute poverty between 2006 and 2015*. Statistics South Africa.

Statistics South Africa. (2017a). Living conditions survey 2014/15 Retrieved March 10, 2023, from <https://www.statssa.gov.za/publications/P0310/P03102014.pdf>

Statistics South Africa (2019). *SA population reaches 58,8 million | Statistics South Africa*. Retrieved June 20, 2022, from <https://www.statssa.gov.za/?p=12362>

Statistics South Africa, (2021). *National poverty lines 2021*. Retrieved May 30, 2022, from <http://www.statssa.gov.za/publications/P03101/P031012021.pdf>

Statistics South Africa. (2021a). *Youth still find it difficult to secure jobs in South Africa | Statistics South Africa*. Retrieved May 31, 2022, from <https://www.statssa.gov.za/?p=14415>

Statistics South Africa, (2022). *Publication | Statistics South Africa*. Retrieved May 30, 2022, from https://www.statssa.gov.za/?page_id=1854

Statistics South Africa, (2022a). Retrieved December 17, 2022, from <https://www.statssa.gov.za/publications/P0211/P02111stQuarter2022.pdf>

Statistics South Africa. (2022b). Mid-year population estimate. Retrieved March 10, 2023, from <https://www.statssa.gov.za/publications/P0302/P03022022.pdf>

The World Bank. (2022). [Text/HTML]. World Bank. Retrieved March 3, 2023, from <https://www.worldbank.org/en/topic/poverty/overview>

United Nations. (2021) - *1_Why-It-Matters-2020.pdf*. (n.d.). Retrieved March 3, 2023, from https://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/1_Why-It-Matters-2020.pdf

United Nations. (2022) - *E_2022_55_Statistical_Annex_I_and_II.pdf*. (n.d.). Retrieved July 25, 2022, from https://unstats.un.org/sdgs/files/report/2022/E_2022_55_Statistical_Annex_I_and_II.pdf

United Nations. (2022a). The Sustainable Development Goals Report. *United Nations Sustainable Development*. Retrieved May 1, 2022, from <https://www.un.org/sustainabledevelopment/poverty/>

UNSDG. (2021). *Shared responsibility, global solidarity: Responding to the socio-economic impacts of COVID-19*. Retrieved May 31, 2022, from <https://unsdg.un.org/resources/shared-responsibility-global-solidarity-responding-socio-economic-impacts-COVID-19>, <https://unsdg.un.org/resources/shared-responsibility-global-solidarity-responding-socio-economic-impacts-COVID-19>

UNU-WIDER: *Press Release: COVID-19 fallout could push half a billion people into poverty in developing countries*. (2020, April 8). UNU-WIDER. <https://www.wider.unu.edu/news/press-release-COVID-19-fallout-could-push-half-billion-people-poverty-developing-countries>

Van der Berg, S., Patel, L., & Bridgman, G. (2021) *Hunger in South Africa during 2020: Results from Wave 3 of NIDS-CRAM*

- Vanleeuw, L., Zembe-Mkabile, W., & Atkins, S. (2022). Falling through the cracks: Increased vulnerability and limited social assistance for TB patients and their households during COVID-19 in Cape Town, South Africa. *PLOS Global Public Health*, 2(7), e0000708. <https://doi.org/10.1371/journal.pgph.0000708>
- Wills, G., Patel, van der Berg, S., & Mpeti, B. (2023). *Household Resource Flows and Food Poverty during South Africa's Lockdown: Short-Term Policy Implications for Three Channels of Social Protection* (SSRN Scholarly Paper No. 4331504). <https://doi.org/10.2139/ssrn.4331504>
- World Bank. (2023). [Text/HTML]. World Bank. Retrieved March 3, 2023, from <https://www.worldbank.org/en/topic/poverty/overview>
- World Vision. (2021) - Global poverty: Facts, FAQs, and how to help. (2021, August 23). *World Vision*. <https://www.worldvision.org/sponsorship-news-stories/global-pove>

Appendix

8.1 Hosmer and Lemeshow's test output

Table 10; Hosmer and Lemeshow's test

Logistic model for Covid19 Grant Application Status, goodness-of-fit test

(Table collapsed on quantiles of estimated probabilities)

Group	Prob	Obs_1	Exp_1	Obs_0	Exp_0	Total
1	0.3595	18	19.1	52	50.9	70
2	0.4405	28	27.6	41	41.4	69
3	0.4958	33	32.9	37	37.1	70
4	0.5299	39	35.5	30	33.5	69
5	0.5734	36	38.6	34	31.4	70
6	0.6223	45	41.4	24	27.6	69
7	0.6603	41	45.0	29	25.0	70
8	0.7049	48	47.2	21	21.8	69
9	0.7648	50	51.3	20	18.7	70
10	0.9074	57	56.5	12	12.5	69

```
number of observations =      695
number of groups =      10
Hosmer-Lemeshow chi2(8) =      3.16
Prob > chi2 =      0.9237
```

8.2 Correlation Coefficient Matrix Output

Table 11: Correlation Coefficient matrix

	Age_gr~p	Sex	Popula~p	Province	Other_~s	Emplom~s	Dwelli~e
Age_group	1.0000						
Sex	-0.0673* 0.0285	1.0000					
Population~p	0.0227 0.4610	0.1004* 0.0011	1.0000				
Province	0.0020 0.9485	-0.0646* 0.0357	-0.1472* 0.0000	1.0000			
Other_hous~s	0.0502 0.1026	-0.1138* 0.0002	-0.0241 0.4334	-0.0179 0.5606	1.0000		
Emploment_~s	-0.0069 0.8518	0.0020 0.9566	-0.0092 0.8041	-0.0133 0.7189	0.3465* 0.0000	1.0000	
Dwelling_t~e	0.0240 0.4364	-0.0211 0.4923	-0.0156 0.6117	0.0418 0.1740	-0.0254 0.4096	-0.0041 0.9126	1.0000
Access_to_~E	-0.0247 0.4216	-0.0076 0.8052	0.0001 0.9972	-0.0033 0.9156	0.0994* 0.0012	0.0015 0.9688	-0.0133 0.6658
No_of_HH_m~s	-0.0899* 0.0034	0.1028* 0.0008	-0.0192 0.5318	0.1148* 0.0002	0.0337 0.2731	-0.0406 0.2737	-0.0226 0.4630
Main_sourc~e	0.0351 0.2611	-0.0142 0.6500	-0.0210 0.5022	0.0227 0.4671	-0.0110 0.7253	-0.0002 0.9965	-0.0101 0.7465
Food_short~e	0.0101 0.7428	-0.0594 0.0534	-0.0147 0.6319	0.0584 0.0576	-0.0124 0.6882	-0.0050 0.8917	-0.0094 0.7596
Marital_St~s	-0.2727* 0.0000	0.0007 0.9823	-0.0935* 0.0023	-0.0202 0.5125	0.0287 0.3509	0.0241 0.5165	-0.0349 0.2566
	Access~E	No_of_~s	Main_s~e	Food_s~e	Marita~s		
Access_to_~E	1.0000						
No_of_HH_m~s	0.0337 0.2740	1.0000					
Main_sourc~e	0.0035 0.9120	0.0106 0.7345	1.0000				
Food_short~e	-0.0009 0.9761	0.0137 0.6561	-0.0027 0.9300	1.0000			
Marital_St~s	0.0298 0.3326	0.0710* 0.0208	-0.0012 0.9691	0.0018 0.9537	1.0000		

8.3 Variance Inflation Factor (VIF) Output

Table 12: Variance Inflation Factor (VIF) output

Age_group	VIF	1/VIF	Sex	VIF	1/VIF	Population~p	VIF	1/VIF
1	3.21	0.311885	1	1.99	0.501720	1	1.52	0.657380
2	2.36	0.424038				2	1.05	0.948229
3	2.65	0.376878						
Province	VIF	1/VIF	Household_~e	VIF	1/VIF	Other_hous~s	VIF	1/VIF
1	1.63	0.613056	1	3.11	0.321647	1	5.77	0.173355
2	1.69	0.591070	99	1.13	0.882081	2	1.92	0.520415
3	1.46	0.685070				99	1.25	0.798346
4	1.41	0.709929						
5	3.80	0.262822						
6	1.36	0.734573						
7	1.82	0.548075						
8	1.85	0.540921						
Emplomen~s	VIF	1/VIF	Dwelling_t~e	VIF	1/VIF	Access_to_~E	VIF	1/VIF
1.Emplomen~s	9.61	0.104014	1	1.41	0.710829	1	1.59	0.630298
			2	1.52	0.658717	2	8.57	0.116675
			99	1.07	0.935080	3	21.97	0.045513
						99	1.19	0.842361
No_of_HH_m~s	VIF	1/VIF	Main_sourc~e	VIF	1/VIF	Food_short~e	VIF	1/VIF
1	3.80	0.263402	1	17.78	0.056235	1	1.90	0.526665
2	3.15	0.317048	2	37.33	0.026790	99	1.04	0.960507
3	2.50	0.400126	3	7.44	0.134373			
Marital_~s	VIF	1/VIF						
1.Marital_~s	7.28	0.137328						
Mean VIF				4.73				

8.3 Turnitin Report Summary

