



WAVE 2

National Income Dynamics
Study (NIDS) – Coronavirus
Rapid Mobile Survey (CRAM)

Social assistance during South Africa's national lockdown:

Examining the COVID-19 grant,
changes to the Child Support
Grant, and post-October policy
options

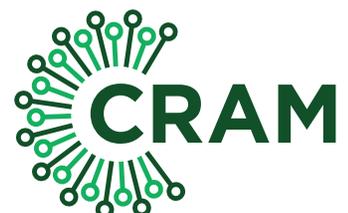
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N.i.D.S.
NATIONAL INCOME DYNAMICS STUDY



CORONAVIRUS RAPID MOBILE SURVEY 2020

Social assistance during South Africa's national lockdown: Examining the COVID-19 grant, changes to the Child Support Grant, and post-October policy options

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30 September 2020

Abstract

In response to the adverse effects of the COVID-19 pandemic, the South African government expanded its system of social assistance by increasing the amounts of all existing social grants and introducing a special COVID-19 grant, both for six months. In particular, the COVID-19 grant has brought millions of previously unreached individuals now into the system. This paper uses new data from Wave 2 of the NIDS-CRAM to analyse the distribution of application for and receipt of the COVID-19 grant, examine how the Child Support Grant (CSG) 'per grant' top-up in May compares to the 'per caregiver' top-up in place from June 2020 onwards, and investigate the costs and welfare effects of several alternative policy options to consider once the expansion of the grants system comes to an end after October. We find that application for and receipt of the COVID-19 grant has been relatively pro-poor, and that conditional on applying, certain individuals are more likely than others to be successful in their application. Despite the grant's progressivity, we show that the extent of under-coverage is however regressive. We show that the 'per child' CSG top-up is more pro-poor than the 'per caregiver' top-up, but only marginally. This is important considering that we estimate the cost of the chosen policy to be substantially cheaper than a six-month 'per child' top-up. Considering alternative post-October policies, we find that an extension of the current grant policy package may be preferable to a Basic Income Grant or special public works programme, however more analysis is required.

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Executive summary

Introduction

In response to the adverse effects of the COVID-19 pandemic on vulnerable groups, governments all around the world have significantly expanded their social protection systems. Such an expansion was included in the South African government's package of relief measures on both the intensive and extensive margins. For six months from May to October 2020, the amounts of every existing social grant were increased and a special COVID-19 Social Relief of Distress (SRD) grant was introduced. This paper uses newly-available representative survey data conducted during South Africa's lockdown – Wave 2 of the NIDS-CRAM – to analyse (i) the distribution of application for and receipt of the special COVID-19 SRD grant, considering this was not feasible using the NIDS-CRAM Wave 1 data, (ii) how the Child Support Grant 'per grant' top-up in May 2020 compares to the 'per caregiver' top-up in place from June 2020 onwards, and (iii) the costs and welfare effects of several alternative policy options to consider once the expansion of the grants system comes to an end after October. These include an extension of the current policy package, a Basic Income Grant of two varied amounts, and a special COVID-19 Public Works Programme.

The special COVID-19 grant has brought millions of previously unreached individuals into the system, and application for and receipt of the grant has been relatively pro-poor. As of the time of the survey, we estimate that of the 11.33 million individuals who applied for the grant, nearly two in every five were successful. Of those who received the grant, the majority are in low-income households: for every individual who lived in quintile 5 households and received the grant in June, nearly four who lived in quintile 1 households received it. Close to 90% of individuals in the former group have never applied. Moreover, of those who lived with at least one household member who received the grant, 60% live in the poorest 40% of households. However, many of these recipient households were previously in the middle of the income distribution and have shifted down due to the pandemic. Vulnerability extends far across the distribution, beyond the poorest, considering the monthly incomes of the poorest 80% of households does not exceed R2 500 per person – lower than the National Minimum Wage. This highlights that social assistance during the lockdown period need not be solely designed as a standard poverty reduction exercise aimed at the poorest households.

Conditional on applying, certain individuals are more likely than others to be successful in their COVID-19 grant application. Of the estimated 2.7 million individuals who received the grant in June 2020, two-thirds were men (1.7 million). This is concerning considering that two-thirds of individuals who lost employment between February and April 2020 were women. This is likely due to the eligibility criterion that current grant recipients — nearly 85% of whom are female — are not eligible to apply for the grant. After controlling for several other factors, we find that men are not statistically more likely than women to receive the grant conditional on applying. We do however find significant differences across provinces, which may speak either to differences in relative efficiencies of provincial grant distribution systems, or other characteristics of the individuals who inhabit them. We also find that those who live in the wealthiest 20% of households are 62% less likely than those in the poorest 20% of households to experience a successful application, which again reflects the progressivity of the grant.

Despite the COVID-19 grant's progressivity, the extent of under-coverage is regressive. In June 2020, a total of nearly 6.5 million individuals were eligible for the COVID-19 grant but did not report receipt, and half of these individuals (3.1 million) live in the poorest third of households. On the other hand, we estimate inclusion error to be relatively low. We suspect there may be several reasons for the high amount of exclusion error, including the fact that there may be a number of eligible non-recipients who are not in distress. However, until SASSA has access to data from all relevant databases in both the private and public sectors, it is likely that payments will continue to

be made to ineligible recipients while many of the eligible will remain excluded. This may have a substantial impact on the total amount paid over the six-month period, straining an already-limited budget.

The ‘per child’ Child Support Grant top-up is more progressive than the ‘per caregiver’ top-up, but only marginally. The CSG top-ups benefit about 7.2 million recipients (caregivers) and 12.8 million beneficiaries (children). The current policy package included an increase in the CSG by R300 per child in May and R500 per caregiver from June to October 2020. This latter characteristic does not consider variation in the number of children per recipient. Although we find that both the ‘per child’ and ‘per caregiver’ top-ups are progressive, the ‘per-child’ top-up is more progressive, but only marginally. This is because more than two-thirds (66.8%) of CSG-receiving households receive more than one CSG. However, we estimate that the cost of the chosen CSG policy is substantially cheaper (R1.2 billion) than a six-month R300 per child top-up. We presume that the chosen policy was chosen due to the additional top-ups to all other existing grants, as well as the introduction of the COVID-19 SRD grant.

Considering alternative post-October policies, we find that an extension of the current grant policy package may be preferable to a Basic Income Grant or public works programme, however more analysis is required. The government’s expansion of social assistance with respect to social grants is due to come to an end in October 2020. However, if the adverse labour market effects of the pandemic persist and disproportionately burden vulnerable individuals and households, policymakers ought to consider implementing appropriate policy beyond October. We consider three alternative policies: an extension of the current policy package, a Basic Income Grant (BIG) of two varied amounts, and a special COVID-19 Public Works Programme which provides limited employment and a transfer equivalent to the National Minimum Wage. Overall, our estimates suggest that an extension of the current grant policy package may have the greatest poverty-reducing impact for a given amount spent, despite being amongst the most expensive (R6.8 billion per month). A BIG of R1 200 exhibits significant potential to reduce poverty, but costs nearly 50% more than an extension of the current policy. Although useful, this analysis is preliminary and does not consider all relevant factors including financing, varied eligibility criteria, depth and severity of poverty, and progressivity to name a few. A more thorough analysis of policy alternatives ought to be conducted prior to any implementation.

1. Introduction

Most governments around the world have implemented national lockdowns that have imposed restrictions on social mobility and interaction in response to the COVID-19 pandemic. Such policy has afforded many countries time to produce the necessary infrastructure and ultimately delay and minimise the spread of the virus. Although the pandemic has posed and continues to pose important risks for public health, such lockdown policies are expected to lead to substantial short and long-term losses in livelihoods, particularly amongst vulnerable groups. Several estimates indicate that the crisis will likely result in the first increase in global extreme poverty since 1998.³ Latest estimates suggest that between 71 and 100 million people could be pushed into extreme poverty in 2020 (effectively eradicating progress made since 2017) and concerningly, more than a third of the new poor are projected to be in Sub-Saharan Africa (Mahler et al., 2020). Extreme poverty is expected to increase by 2.7 percentage points for the region — equivalent to the 2011 regional poverty level (Valensisi, 2020). Importantly, the new poor are expected to be characteristically different from the existing poor. This former group can be regarded as a combination of (i) those who were expected to transition from poor to non-poor in 2020 in absence of the pandemic but are now projected to remain poor, and (ii) those projected to fall into poverty because of the pandemic (Nguyen et al., 2020). In order to effectively reach both the existing and new poor, in addition to other vulnerable groups, such a distinction is particularly important for the optimal design of relief policy.

In response to the adverse effects of the pandemic on vulnerable groups, social protection systems have expanded significantly all around the world. As of 10 July 2020, a total 200 countries or territories had just over 1 000 planned, introduced, or adapted social-protection measures in place, representing a more-than-eightfold increase in measures from 103 measures in 45 countries in March 2020 (Gentilini et al., 2020). Sixty percent of these programs take the form of non-contributory social assistance, with cash transfers accounting for half of these programs (or 30% of global social protection measures). Such an expansion of social assistance was included in the South African government's package of relief measures on both the intensive and extensive margins. For six months from May to October 2020, the amounts of every existing unconditional cash transfer (hereafter referred to as social grants) were increased and a special COVID-19 Social Relief of Distress (SRD) grant was introduced. These changes are expected to benefit nearly 18 million existing grant beneficiaries and a potential 12 million additional recipients (Bhorat et al., 2020a). In particular, the COVID-19 grant has brought millions of previously unreached individuals into the system, with many recipients coming from the middle of the pre-crisis income distribution. This highlights that social assistance during the lockdown period need not be solely designed as a standard poverty reduction exercise aimed at the poorest households.

In our previous work using data from Wave 1 of the National Income Dynamics Study - Coronavirus Rapid Mobile Survey (NIDS-CRAM),⁴ we showed that the adverse labour market effects of the pandemic have been disproportionately borne by individuals in lower-income households: employment loss for individuals who live in the poorest 20% of households accounted for more than a third of total employment loss (or nearly 1 million less people employed) between February and April 2020. Similar patterns were observed for reductions in earnings and working hours. Fortunately, to some extent the progressive nature of the grants system has combatted the regressive nature of the pandemic's economic effects. Through fiscal incidence analysis, we found that the additional government spending on grants was relatively well-targeted to lower-income households in the beginning of the national lockdown. Spending on the Child Support Grant (CSG) was particularly pro-poor. However, despite the importance of the system's expansion, grant-receiving households are not immune to shocks from other sources of income. As such, the top-ups are unlikely to sufficiently compensate for total household income loss.

In this paper, we seek to provide a three-part analysis by making use of the newly available Wave 2 NID-CRAM data, described in more detail in Section 3. First, we conduct an analysis of the

³ Defined as the number of individuals living on less than \$1.90 per day.

⁴ The interested reader is referred to our NIDS-CRAM Wave 1 policy paper here: <https://cramsurvey.org/wp-content/uploads/2020/07/K%C3%B6hler-COVID-19-social-protection-and-the-labour-market-in-South-Africa.pdf>.

distribution of application for and receipt of the special COVID-19 SRD grant, considering this was not feasible to do with the NIDS-CRAM Wave 1 data. Second, with respect to progressivity, we analyse how the Child Support Grant 'per grant' top-up in May 2020 compares to the 'per caregiver' top-up in place from June 2020 onwards, considering we analysed the former in our Wave 1 paper. Third, considering the expansion of the grants system comes to an end after October, we analyse and discuss the costs and welfare effects of several alternative policy options. These include an extension of the current policy package of social assistance (that is, the top-ups to existing grants and the availability of the COVID-19 SRD grant), a Basic Income Grant of two varied amounts, and an employment guarantee we refer to as the COVID-19 Public Works Programme.

The remainder of this paper is structured as follows. Section 2 provides a brief overview of the South African social protection system and its pandemic-induced expansion. Section 3 describes the NIDS-CRAM data and provides an analysis of the quality of the social grants and household income data therein. Section 4 presents our main results of the aforementioned three-part analysis. Finally, Section 5 concludes.

2. An overview of South Africa's social protection system

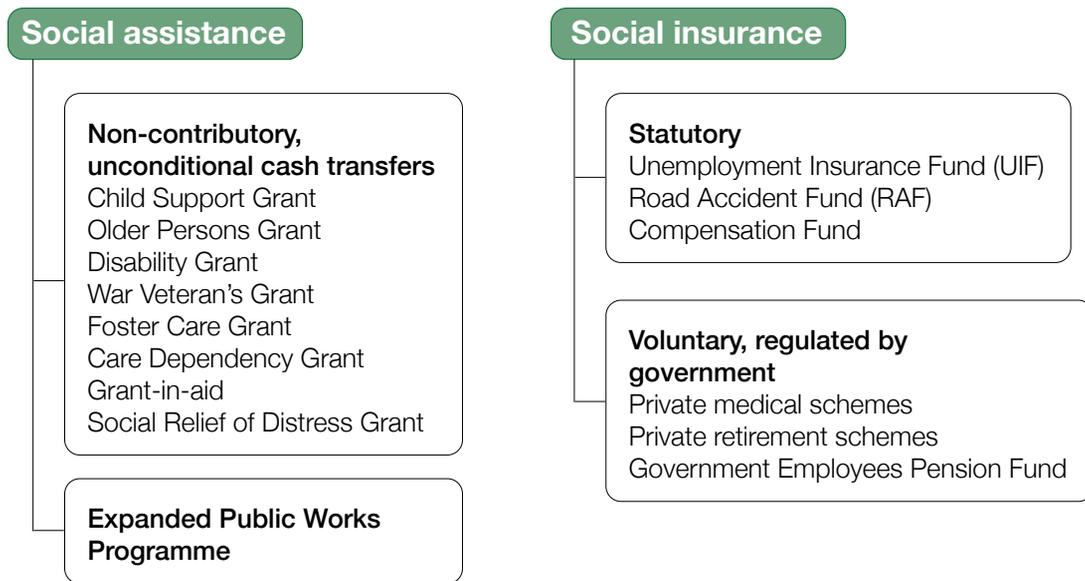
2.1. Pre-COVID-19 social protection in South Africa

In Köhler and Borat (2020), we provided an overview of South Africa's contemporary social protection system prior to the onset of the pandemic. For completeness, we include the overview here. The basic structure of the current social protection system is outlined in *Figure 1*. It is useful to distinguish between social assistance (which protects the poor using cash or in-kind transfers) and social insurance (which protects individuals against adverse events). Primarily, the system consists of tax-financed, unconditional, and means-tested (except for the Foster Care Grant) cash transfers that primarily empower vulnerable children, the elderly, and the disabled (Moore and Seekings, 2019).

Since democratization, social assistance in particular has expanded significantly with nearly 18 million beneficiaries (or nearly one in every three South Africans) as of 2019/20, at a cost of 3.4% of Gross Domestic Product (South African Social Security Agency (SASSA), 2020). Social spending in South Africa is widely documented to be relatively well-targeted towards the poor. This is largely attributable to the use of means testing as a targeting device for social assistance, in addition to the observation that poorer households have more children and the fact that the private health care system is used in preference to the public system for those who can afford it (Van der Berg, 2014).

Social assistance also consists of the Expanded Public Works Program (EPWP) that is, in essence, employment-based basic income security for the working-age population. Introduced in 2004, the EPWP is a government supply-side programme that aims to create employment, aid skills development, and provide income relief for the unemployed by providing temporary work. However, the programme's scale is determined by the government's capacity to create employment opportunities and therefore, it cannot provide jobs to all of the work-seeking unemployed (Peres, 2019).

Figure 1: The basic structure of South Africa's contemporary social protection system



Notes:
 [1] Authors' own arrangement. Source: National Treasury (2020).

Table 1 provides information regarding the evolution of the number of grants distributed by grant type over the last decade. The CSG constitutes the largest grant in the system in terms of number of grants distributed, accounting for 71% (or nearly 13 million) of total grants distributed in 2019/20. As of the end of June 2020, more than three in every five children (64.2%) in South Africa had a caregiver receive a CSG on their behalf.⁵ The grant's large take-up is largely attributable to gradual increases in the age eligibility threshold and a less stringent means test. The means test is set to ten times the grant amount and from 2010, all (income-eligible) children born after 1996 who are younger than 18 years are eligible. The overwhelming majority of CSG recipients (and every other grant type with the exception of the War Veteran's Grant) are women. As of the end of June 2020, of the 7.2 million CSG recipients (not beneficiaries), just 166 000 (or 2.3%) are men (SASSA, 2020). The Older Persons Grant (OPG, formerly the Old Age Pension) and Disability Grant (DG, the only grant intended for working-age adults) are the second and third largest grants, collectively accounting for more than one in every four recipients. More than one in every two South Africans live in a household that receives income from either the CSG or OPG (Bassier et al., 2020). Both the OPG and DG are means-tested, and benefits are more than four times larger than the CSG.

⁵ Based on data from SASSA (2020) of nearly 13 million CSGs distributed, and StatsSA's 2020 mid-year population estimate of just under 20 million children under the age of 18 years.

Table 1: Number of social grants distributed by grant type, 2009/10 versus 2019/20.

	2009/10			2019/20			Growth in recipients (2009/10 - 2019/20) (%)
	Monthly amount (nominal Rands)	Thousands	% of total	Monthly amount (nominal Rands)	Thousands	% of total	
Child Support Grant	240	9 381	68.08	440	12 777	71.00	36.20
Older Persons Grant*	1 010	2 491	18.08	1 860	3 655	20.31	46.73
Disability Grant	1 010	1 299	9.43	1 860	1 058	5.88	-18.55
Foster Care Grant	680	489	3.55	1 040	350	1.94	-28.43
Care Dependency Grant	1 010	119	0.86	1 860	155	0.86	30.25
Total		13 779	100.00		17 996	100.00	30.60

Source: National Treasury (2011, 2020). Authors' own calculations.

Notes:

[1] * Includes War Veterans' Grant recipients whose grant amounts to R1 880 in 2019/20 and R1 030 in 2009/2010, for the 2019/20 financial year the monthly amount here refers to that for individuals between 60 and 75 years of age, and the Older Persons Grant is R1 880 for individuals over 75 years of age.

[2] Recipients per grant may not sum to total recipients due to rounding.

[3] Grant-in-Aid and Social Relief of Distress grant recipients are excluded here.

With respect to social insurance, relatively little progress has been made (Woolard et al., 2011). Social insurance in South Africa is primarily used to protect those in formal sector employment (Van der Berg, 1997; Woolard et al., 2011). Therefore, those who work in the informal sector remain outside this part of the system. Seekings and Matisonn (2012) describe it as a semi-social insurance system owing to the fact that only former contributors are eligible for benefits in the short-term and therefore few chronically-poor individuals are covered. There are three primary social insurance measures: the UIF, the Road Accident Fund (RAF), and the Compensation Fund. With the amended Unemployment Insurance Act of 2001, the latest version of the UIF came into effect in 2002 and seeks to provide short-term protection against unemployment, illness, maternity, the adoption of a child, and death — conditional on prior formal employment. The RAF was introduced in 1996 and seeks to provide compensation for the loss of earnings, general damages, injuries, or death and funeral costs arising from accidents involving motor vehicles on South African roads. Given its mandatory nature, the Fund operates like a universal social insurance scheme (Moore and Seekings, 2019). Finally, the Compensation Fund was introduced in 1993 with the promulgation of the Compensation for Occupation Injuries and Diseases Act, replacing the former racially-orientated Workers Compensation Act of 1941. South Africa's social insurance system also includes a regulated, voluntary component consisting of private medical and retirement schemes for those who can afford it, as well as the Government Employees Pension Fund — a defined benefit pension fund established in 1996 and mandatory to all government employees.

Despite South Africa's relatively comprehensive social safety net, there are still large holes in the net with little provision for the working-aged unemployed (Moore and Seekings, 2019). This is rooted in the fact that, as in Latin America and elsewhere, the structure of South Africa's social protection system relies on the assumption that only 'dependent' categories (such as the elderly, disabled, and children) are in need of support. Prime-aged, able-bodied individuals are presumed to be able to support themselves through the labour market and are therefore excluded from receiving social assistance (Ferguson, 2015). However, such a view neglects the widespread, structural unemployment which plagues South Africa (Bassier et al., 2020). As of the first quarter of 2020,

nearly three in every four (71.7% or approximately 5 million) of the work-seeking unemployed have been so for more than one year.⁶

2.2. Pandemic-induced changes to social assistance in South Africa

The South African government's response to the onset of the pandemic was, relative to the global and Sub-Saharan African average, rapid and stringent (Gustaffson, 2020). Following the declaration of a National State of Disaster on 15 March 2020, South Africa's number of confirmed COVID-19 cases passed 100 just three days later, and a complete national lockdown was initially imposed for 21 days from 26 March. On 9 April, the national lockdown was extended to the end of April. From the beginning of May, a five-stage, risk-adjusted, phased re-opening of the economy was introduced. On 21 April, President Ramaphosa announced the government's package of relief measures: a stimulus amounting to over R500 billion (or approximately 10% of GDP) of which R50 billion was initially allocated to social assistance. Initial economic relief measures of government primarily focused on tax-registered individuals and firms in the formal sector. However, there were several vocal calls for the expansion of social assistance to support low-income households (Bhorat et al., 2020a). Specifically, these calls largely advocated for supplementing the CSG on the intensive margin (i.e. increasing the amount of an existing cash transfer). Analysis using pre-crisis survey data suggested that in the absence of such targeted interventions, the extreme poverty rate amongst vulnerable households may almost triple.⁷

The realised expansion of social assistance by government was on both the intensive and extensive margins: for six months from May to October 2020, the amounts of every existing social grants were increased and the special COVID-19 SRD grant was introduced. This latter transfer is intended for individuals who are unemployed and neither receiving any income nor any other social grant or support from the UIF. Citizens, permanent residents, refugees, asylum-seekers, and special permit holders are all eligible for this grant.⁸ There were, however, both initial and further delays in the processing of applications and payment of the COVID-19 SRD grant, largely owing to the setting up of relevant processes and systems, the late verification of recipient banking details, and issues that the SASSA experienced in gaining access to the correct databases from other state organisations for verification purposes (Auditor-General, 2020). Payments of the special COVID-19 SRD grant began towards the end of May 2020.

These adaptations to the grant system were, of course, heterogenous by grant type. As indicated in *Table 2*, every existing grant with the exception of the CSG was increased on the intensive margin by R250 per month (equivalent to a relative increase of 13% - 24%) from May to October 2020. On the other hand, the CSG was increased by R300 *per grant* for May (a nearly 70% increase attributable to a relatively low pre-COVID-19 level of R440) but R500 *per caregiver* (regardless of the number of eligible children) from June onwards. As such, the benefit of this chosen policy varies by a primary caregiver's number of eligible children. Although caregivers with one child will benefit relatively more from June relative to May, those with two or more children benefit relatively more in May relative to June onwards. Compared to initial calls to increase only the CSG, this decision by the Department of Social Development was presumably taken partly because it was accompanied by the introduction of the new COVID-19 SRD grant as well as increases to all other existing grants.

By simulation, Bhorat et al. (2020a) find that although the chosen social assistance policy appears to cost more and is slightly less progressive relative to only increasing the CSG by R500 per grant, it brings many previously unreached households into the system partly through the introduction of the COVID-19 SRD grant and ultimately leads to the largest reduction in poverty over six months. Bassier et al. (2020) find that the expansion of the CSG is complimentary to the introduction of the COVID-19 SRD grant, and that "this combined policy intervention performs best out of the options considered". Bhorat et al. (2020b) note that the addition of the COVID-19 SRD grant to the

6 Own calculations using Statistics South Africa's 2020 Quarter 1 Quarterly Labour Force Survey microdata.

7 <https://theconversation.com/south-africa-can-and-should-top-up-child-support-grants-to-avoid-a-humanitarian-crisis-135222>.

8 <https://www.iol.co.za/sundayindependent/news/sassa-to-spend-r700m-providing-refugees-with-the-r350-covid-19-relief-grant-49703342>.

system, together with the top-ups to pre-existing grants, has the potential to reach a total 36 million individuals, or approximately 63% of the South African population. As of the beginning of September, R4.8 billion of the total budgeted amount of R11.85 billion for six months (40.5%) had been allocated to approximately 5.5 million successful applicants (of just under 9 million applications).⁹ Considering the top-ups to all other social grants, about R15.3 billion of the total budgeted amount of R29.1 billion (52.6%) for six months had been spent by the end of July. For August to October, approximately R5 billion per month is anticipated to be paid to about 12.3 million recipients (excluding COVID-19 SRD grant recipients), which implies a possible shortfall of R1.1 billion on the available balance (Auditor-General, 2020).

Table 2: Changes to South Africa's social grants, May to October 2020.

Grant	Pre-COVID-19 amount (Rands per grant per month)	Absolute (Rands per grant per month, unless indicated otherwise) and relative (%) increase		COVID-19 amount (Rands per grant per month, unless indicated otherwise)	
		May 2020	June-October 2020	May 2020	June-October 2020
Older Persons Grant*	1 860	250 (13.44%)	250 (13.44%)	2 110	2 110
War Veterans' Grant	1 880	250 (13.30%)	250 (13.30%)	2 130	2 130
Disability Grant	1 860	250 (13.44%)	250 (13.44%)	2 110	2 110
Care Dependency Grant	1 860	250 (13.44%)	250 (13.44%)	2 110	2 110
Foster Child Grant	1 040	250 (24.04%)	250 (24.04%)	1 290	1 290
Child Support Grant	440	300 (68.18%)	500 per caregiver	740	440 per grant + 500 per caregiver
COVID-19 SRD Grant	NA	NA	NA	350	350

Source: Government Gazette No. 43300 dated 9 May 2020. Authors' own compilation.

Notes:

[1] * The grant amount of R1 860 is for individuals aged 60 to 75 years, which increases to R1 880 for individuals older than 75 years of age.

3. Data

3.1. The National Income Dynamics Study: Coronavirus Rapid Mobile Survey

This paper uses data from the first two waves of the NIDS-CRAM, conducted via Computer Assisted Telephone Interviewing (CATI) in the preferred South African official language¹⁰ of the respondent from 7 May to 27 June and 13 July to 13 August 2020, respectively. The NIDS-CRAM is a broadly-representative individual-level panel survey of approximately 7 000 South African adults that will be repeated over several months. Conducted as a collaborative research project by several South African universities, the aim of the survey is to provide frequent, representative data on key socioeconomic outcomes in South Africa during the COVID-19 pandemic and national lockdown. The survey forms part of a broader study, which this paper forms part of, that aims to inform policymaking using rapid, reliable research in the context of the COVID-19 pandemic. The survey instrument includes a wide array of questions on income and employment, household welfare, and COVID-19-related knowledge and behaviour.

In order to be representative while simultaneously adhering to public health protocol and lockdown

⁹ As per the Department of Social development on 2 September here: https://twitter.com/The_DSD/status/1303360408556843011.

¹⁰ With the exception of Ndebele, the questionnaire for Wave 1 was translated into 10 of South Africa's 11 official languages.

regulations, the mobile phone numbers of existing sample participants needed to be obtained. In this light, the NIDS-CRAM sample frame consists of individuals resident in South Africa, aged 18 years or older at the time of fieldwork in April 2020, and who were surveyed in Wave 5 of the National Income Dynamics Study (NIDS) conducted in 2017.¹¹ The NIDS is a nationally representative, panel, face-to-face household survey conducted approximately every two years from 2008 to 2017 and has followed the same 28 000 South African individuals over five waves. The sample was drawn using a stratified sampling design. For more information on the NIDS-CRAM sampling design, the interested reader is referred to Ingle et al. (2020). At several points in this paper, we additionally use data from NIDS Wave 5. Considering attrition across the first two waves of the NIDS-CRAM panel, of the 7 073 individuals who were successfully interviewed in Wave 1, 80.2% (or 5 676 individuals) were successfully interviewed in Wave 2. The attrition rate between the two waves is approximately 19%. Because individuals who attrite tend to be systematically different to individuals who remain in the panel, panel weights are used for the NIDS-CRAM Wave 2 data to correct for non-random attrition.¹² Unless indicated otherwise, all estimates for all periods are weighted using the relevant sampling design weights and account for both the NIDS and NIDS-CRAM complex survey designs to address non-response and ensure representativity.

3.2. How representative is the NIDS-CRAM? Caveats to consider

We believe our estimates come with important caveats due to unavoidable imprecision that render them still approximations. We discuss these caveats here. First, it is important to note that because the NIDS-CRAM sample is drawn from a representative sample of individuals in NIDS Wave 5 (conducted in 2017), the weighted estimates are not necessarily representative of the South African adult population in 2020. Although post-stratification weights make the NIDS Wave 5 sample representative of the South African population in 2017, the weighted NIDS-CRAM estimates are only representative of the outcomes in 2020 of those aged 15 years and older in 2017 who were followed up 3 years later – hence ‘broadly’ representative. Second, it is not unusual to observe disparities between estimates of the NIDS and other household surveys such as the QLFS. This is because NIDS was always designed to be a panel survey representative of the population in 2008, and as such, factors such as selective migration from the sample over time are not accounted for. Since the NIDS-CRAM sample is drawn from the NIDS Wave 5 sample, this characteristic will continue into NIDS-CRAM.

Third, although NIDS-CRAM respondents can be matched to their observations in the core NIDS panel, caution should be exercised when making comparisons between these two datasets. NIDS-CRAM uses a much shorter questionnaire (and is thus less detailed) that takes on average 20 minutes to administer, is conducted via CATI as opposed to face-to-face interviews, and is an individual-level, individual-based survey as opposed to being household-based. This latter point presents complications for deriving household-level variables from individual-level variables. In the NIDS-CRAM sampling method, no restriction was made to selecting just one individual per NIDS Wave 5 household, and no attempt was made to check whether successfully re-interviewed individuals resided in the same households as they did in Wave 5. Moreover, NIDS asked the oldest women or most knowledgeable person in the household (where possible) about the household and its members, whereas every respondent in NIDS-CRAM was asked about their household. This has important implications for precise estimates of, for example, household income. The level of detail of the questions in NIDS-CRAM will not allow for full-imputations of income as in NIDS. In the NIDS-CRAM, researchers may need to rely on a one-shot household income question as opposed to deriving household income from aggregating individual item responses as in NIDS. Jain et al. (2020) show that in the NIDS Wave 5 data, the distribution of one-shot household income is lower than the distribution of derived household income. Finally, individuals from larger households were

11 Sample members in the NIDS could be Continuing Sample Members (CSMs) or Temporary Sample Members (TSMs). CSMs were interviewed in every wave of the NIDS, whereas TSMs were interviewed in a given wave only if they were a co-resident of a CSM.

12 The results of a multivariate probit model of the probability of being re-interviewed in Wave 2 conditional on a range of Wave 1 characteristics including race, sex, age categories, province, urban location, an indicator that household income was missing, an indicator that the individual was employed at the time of the Wave 1 interview, and NIDS Wave 5 household per capita income quartiles (not shown here) showed that attrition was statistically significantly higher among self-reported Coloureds and Indians, urban dwellers, the employed, those with missing household income data, and individuals in the top per capita income quintile in NIDS Wave 5.

more likely to be sampled in the NIDS-CRAM relative to individuals from smaller households (Kerr et al., 2020). We emphasise that the reader keeps these concerns in mind throughout the paper.

There remain, however, important advantages of the NIDS-CRAM data that make it incredibly valuable for understanding the current context in South Africa. First, because the survey is designed as a panel, it can provide a substantial amount of information about the dynamics of sampled individuals as the pandemic and lockdown unfolds. At the time of writing there is no comparable existing dataset which can be used to analyse these dynamics. Second, despite unavoidable comparability issues between NIDS-CRAM and other surveys, internal validity and comparisons over time for the sample are not issues of concern. Many of the operational challenges experienced by the NIDS-CRAM survey will almost certainly be experienced by other surveys being conducted during this period. Third, unlike many other rapid mobile surveys conducted to analyse the impacts of COVID-19, the panel nature of the NIDS-CRAM means that researchers can check under- or over-reporting of key variables by linking respondents back to their records in earlier NIDS waves.

3.3. Data on social grants and household income in the NIDS-CRAM

3.1.1 Social grants data

Both Waves 1 and 2 of the NIDS-CRAM contain data on personal and household-level¹³ receipt of social grants. Individuals were asked if they personally received any social grant in (in Wave 2 (June) specifically; Wave 1 had no explicit reference period) and if so, which grant(s) they received. In Wave 2, two additional questions pertaining to the special COVID-19 SRD grant were included. Individuals were asked if they had applied for the grant and whether or not their application was successful (no explicit reference period). These items are notable additions to the NIDS-CRAM questionnaire, as they allow us to analyse not only variation in receipt of this grant, but also variation in the probability of applying for the grant and experiencing either a successful, unsuccessful, or pending application. An analysis of the receipt of this grant is also only feasible with the Wave 2 data, considering that just 44¹⁴ individuals reported receipt in Wave 1, as opposed to 443 in Wave 2. As such, the data allows us to analyse personal receipt for any type of grant.

We choose to specifically focus on the CSG and the OPG (considering they are the largest grants with respect to the number of grants distributed) as well as the COVID-19 SRD Grant. Regarding household-level receipt, individuals were asked how many people in their household received the CSG and the OPG (again, in June specifically in Wave 2; Wave 1 had no explicit reference period). If they did not report an exact number, they were asked if anyone in their household received the relevant grant. Household-level receipt was only asked about these two grants in Wave 1; however, in Wave 2 individuals were additionally asked how many people in their household received the special COVID-19 SRD Grant in June.¹⁵ Therefore, the grants we give focus to in our analysis of household-level receipt are the same grants we focus on for personal receipt.

One aspect of the NIDS-CRAM data that should be explicitly noted is the under-estimation of grant recipients – particularly in Wave 1 – relative to administrative data from SASSA. *Table 1* provides the sample sizes and weighted estimates of the number of grant recipients in the NIDS-CRAM data by level of receipt, grant type, and wave. The weighted NIDS-CRAM estimates suggest there were just under 6.4 million grant recipients¹⁶ in Wave 1. This estimate is significantly lower than official records of just under 18.4 million grants paid out to 11.4 million recipients as of the end of June 2020 (SASSA, 2020). The Wave 2 estimates of 11.9 million recipients are substantially

13 For household-level receipt, given that the NIDS-CRAM is not a household-based survey, we cannot directly observe whether sampled individuals co-reside with other sampled individuals who report being grant recipients. Rather, the questionnaire includes a question on how many people in the respondent's household received a particular grant in the reference month.

14 Or 60 observations if one regards recipients of the "Social relief of distress" grant as the same as the COVID-19 SRD Grant.

15 If individuals reported that they did not know the number, they were then asked if at least one person received the grant. This option allows us to include these observations being categorized as those who "live in COVID-19 SRD recipient households". We can also analyse how many of these grants are received within each household. Although imprecise, we choose to assume such reports of "I don't know, but at least one" imply one person in the household receives the grant. This affects 53 observations.

16 The 95% confidence interval is 5.6 million to 7.1 million recipients of any grant in Wave 1.

better and not statistically significantly different from official records.¹⁷ Similarly, the estimates of the number of OPG recipients of 3.05 million in Wave 1 and 3.4 million in Wave 2 are both close to the aforementioned official record of 3.7 million recipients, with both not statistically significantly different from official records.¹⁸

The CSG estimates are of particular concern in both waves, with estimates from Wave 2 less underestimated. Official records state that, as of the end of June 2020, about 12.8 million CSGs were distributed to just under 7.2 million recipients (SASSA, 2020). However, the NIDS-CRAM estimates point to just over 2 million recipients in Wave 1 and 4.4 million in Wave 2 – both of which do not statistically align with official records.¹⁹ Ardington (2020) notes that this characteristic of the NIDS-CRAM may not be a sample representativity issue but rather be driven by misunderstanding of the question, given the distinction between recipients (caregivers) and beneficiaries (children) of the CSG (unlike other grants).

Table 3: Personal and household-level grant receipt in the NIDS-CRAM by grant type and wave

			Any grant	Child Support Grant	Older Persons Grant	COVID-19 SRD Grant		
						Receipt in June 2020	Applied (as of the time of survey)	Applied and successful (as of the time of survey)
Wave 1 (May and June 2020)	Personal receipt	Obs	1 516	601	672	44	.	.
		Weighted	6 385 990	2 071 249	3 051 182	229 481	.	.
	Household receipt	Obs	.	4 389	2 607	.	.	.
		Weighted	.	18 300 000	11 400 000	.	.	.
Wave 2 (July and August 2020)	Personal receipt	Obs	2 265	967	641	441	1 778	694
		Weighted	11 900 000	4 440 475	3 420 970	2 674 892	11 300 000	4 317 323
	Household receipt	Obs	.	3 429	1 977	1 329	.	.
		Weighted	.	17 300 000	10 100 000	7 891 261	.	.

Source: NIDS-CRAM Waves 1 and 2. Authors' own calculations.

Notes:

[1] Relevant estimates weighted using survey sampling weights after accounting for complex survey design.

[2] Household-level receipt is defined as a respondent reporting living in a household where at least one member reported receiving a grant.

[3] The reference period for receipt was June 2020 for Wave 2 unless indicated otherwise above, whereas there was no explicit reference period in the Wave 1 questionnaire.

Lastly, as previously mentioned, the small sample size of 44 individuals reporting receipt of the special COVID-19 SRD grant in Wave 1 yields an estimate of just 230 000 recipients,²⁰ far off from the 2.5 million recipients as of the end of June and over 4 million approved applications by 22 July, according to official SASSA records.^{21 22} On the other hand, the Wave 2 estimate of 2.6 million

17 The 95% confidence interval is 10.6 million to 13.3 million recipients of any grant in Wave 2.

18 The 95% confidence interval is 2.9 million to 3.9 million recipients of the Older Persons Grant in Wave 2.

19 The 95% confidence interval is 1.7 million to 2.4 million CSG recipients in Wave 1, and 3.8 million to 5 million CSG recipients in Wave 2.

20 The 95% confidence interval is 125 657 to 333 305 recipients of the COVID-19 SRD Grant in Wave 1.

21 <https://www.sassa.gov.za/newsroom/Documents/SASSA%20Sends%20Lifeline%20to%20Rejected%20COVID-19%20Grant%20Applicants.pdf>.

22 Policy Debate Statement by the Minister of Social Development, Ms Lindiwe Zulu, available here: <https://www.gov.za/speeches/minister-lindiwe-zulu-social-development-dept-budget-202021-23-jul-2020-0000>.

recipients in June (95% confidence interval: 2.1 – 3.2 million) is more comparable. This substantial jump in recipients from Wave 1 to 2 may be explained by the initial slow roll-out of the grant. Observing grant expenditure data, R36.5 million was spent on COVID-19 SRD Grants in May, whereas nearly R1 *billion* was spent in June (SASSA, 2020). Considering application (not receipt) data, an estimated 11.3 million applied for the grant in Wave 2, with 4.3 million experiencing a successful application (the remaining applications were either pending or unsuccessful). The discrepancy between the estimated 2.6 million recipients but 4.3 million successful applications observed here may be explained by the difference in reference periods, with the former relating to receipt in June and the latter the time of the interview in July and August.

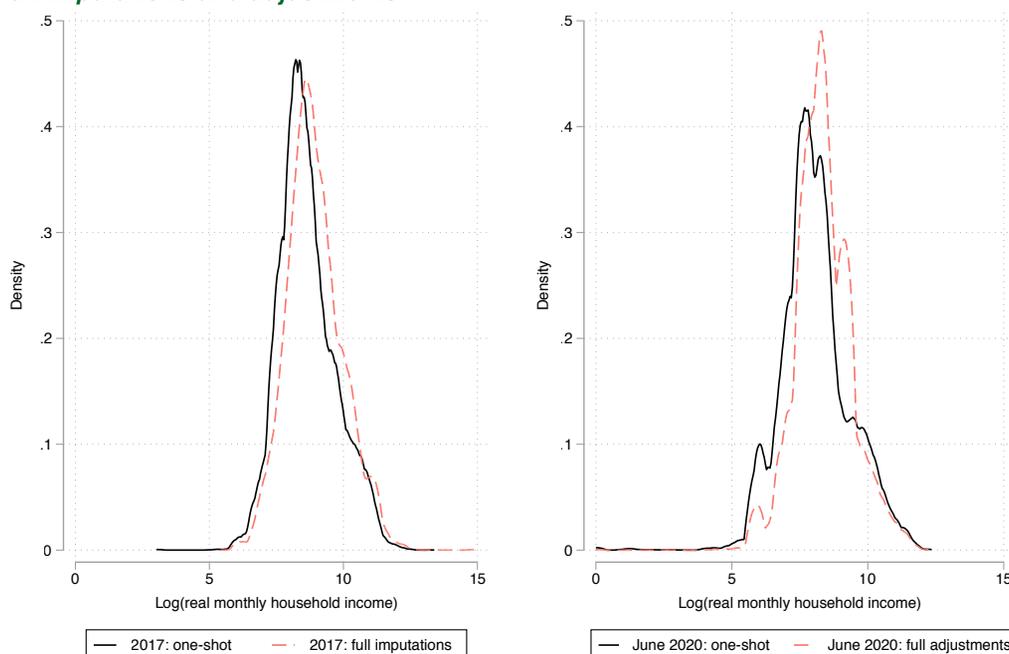
Overall, it appears that the estimates of the number of grant recipients in both waves of the NIDS-CRAM data are under-estimated. However, it is encouraging that the Wave 2 estimates are considerably closer to that of official records – particularly for the number of overall, OPG, and COVID-19 SRD grant recipients. Again, we encourage the reader to keep these concerns in mind throughout the paper.

3.1.2 Household income data

Both Waves 1 and 2 of the NIDS-CRAM and the NIDS contain data on an individual's self-reported monthly household income after tax. Whilst household income in the NIDS Wave 5 is with respect to 2017, Wave 1 of the NIDS-CRAM is with respect to April 2020 and Wave 2 to June 2020. However, there are important differences in how household income is derived between the two surveys. Unlike NIDS, NIDS-CRAM did not survey all individuals co-resident with the original sample member as in previous NIDS waves, and there is no NIDS-CRAM household roster identifying individuals who are in the same household. As a result, researchers can only use household income as reported from a one-shot question in the NIDS-CRAM, whereas the NIDS has both a one-shot question as well as individual household income item-responses that can be aggregated. This has important implications for household income estimates. The left panel of *Figure 2* below shows that, using the NIDS Wave 5 data for adults in the NIDS-CRAM sample, the distribution of 2017 one-shot household income is substantially lower than the distribution of 2017 household income derived from the individual items.²³

²³ Every observation in the NIDS-CRAM Wave 2 data had non-missing household income data in the NIDS Wave 5 data. Furthermore, most (75.3%) report living in the same household at the time of the NIDS-CRAM Wave 2 survey as they did when they were surveyed for NIDS Wave 5 in 2017.

Figure 2: Distribution of real monthly household income in 2017 and June 2020: one-shot items versus full imputations and adjustments



Source: NIDS Wave 5 and NIDS-CRAM Wave 2. Authors' own calculations.

Notes:

[1] Samples in both waves are restricted to NIDS-CRAM Wave 2 respondents.

[2] NIDS Wave 5 data are weighted using relevant post-stratification weight, while NIDS-CRAM Wave 2 data are weighted using (i) the relevant panel weight for the one-shot item, and (ii) computed bracket weights for the adjusted item.

[3] Adjustments made to NIDS-CRAM Wave 2 data are detailed in Section 3.1.2.

In addition to household income in the NIDS-CRAM being likely underestimated due to the one-shot question, a significant number of respondents did not report household income. Of the 5 676 observations in the NIDS-CRAM Wave 2 data, 2 094 (36.9%) had missing numerical household income data. It is plausible to believe that such missing data in the NIDS-CRAM is not missing at random, resulting in biased estimates (Ardington, 2020). We estimate a probit model through Maximum Likelihood Estimation (MLE) to predict the probability of a sampled individual having missing household income data in the NIDS-CRAM Wave 2. The complete model results are presented in *Table A1* in the Appendix. We find that those who are statistically more likely to have missing household income data include those who report usually working in the Wholesale and Retail Trade industry, and those who live in larger households. Such evidence of non-random missing data ought to be kept in mind throughout this paper. If respondents did not report household income in monetary terms, they were requested to report the bracket within which their household income could be categorised. Of the 2 094 respondents who did not report their household income in monetary terms, 1 207 (57.6%) responded with bracket information.

To address these issues in the NIDS-CRAM data, we make several rough adjustments. First, for individuals who reported bracket information, we assign the within-bracket median household income in monetary terms. Second, we use the limited earnings data available to replace household income values with a lower-bound estimate if the latter exceeded the former. This lower-bound is calculated as the sum of three individual items: household-level grant receipt, personal grant receipt, and individual earnings. These two adjustments resulted in a significant reduction of the sample with missing household income data from 2 094 observations (36.9% of the sample) to 888 observations (15.6% of the sample).

Lastly, there may be selection into responding with bracket information. Simply ignoring the bracket responses incorrectly ignores responses that may come from the top end of the income distribution. To address this, we construct bracket weights similar to those constructed in the Post-Apartheid

Labour Market Series (PALMS) version 3.3 dataset.²⁴ These are calculated as the inverse of the probability of responding with an actual Rand amount in a particular bracket, multiplied by the sampling weight for each individual. This process weights up individuals whose reported incomes are in brackets where the proportion of actual monetary responses are lower, relative to brackets where such a response is high.²⁵ The results of the aforementioned two adjustments and the use of bracket weights are summarised in the right panel of *Figure 1* above. Similar to NIDS, it is clear that the distribution of one-shot household income is substantially lower than the distribution of a roughly imputed household income in June 2020. We use these bracket weights to categorise individuals into relevant household income groups (terciles, quintiles, and deciles). Lastly, all income data were inflated to July 2020 Rands. We encourage the reader, however, to keep these adjustments in mind throughout the paper, given that much (but not all) of the analysis relies on our adjusted measure of household income.

4. Results

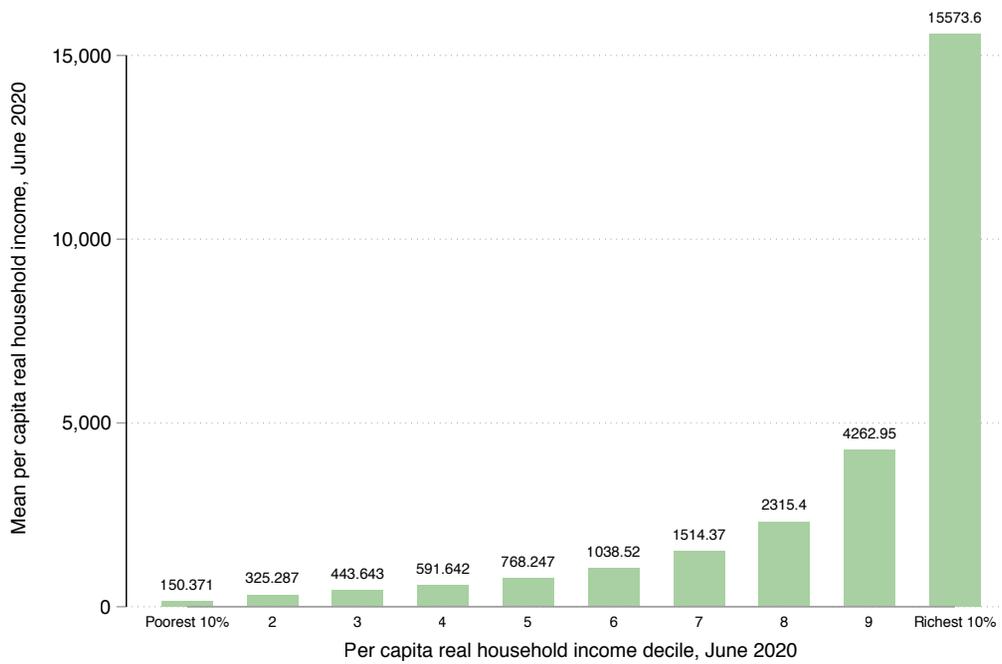
4.1. Examining variation in application and receipt of the special COVID-19 Social Relief of Distress Grant

Before we discuss our results on the application for and receipt of the special COVID-19 SRD grant during the national lockdown, it is important to first note that vulnerability extends far across the household income distribution, beyond the poorest households. This has important implications for the role of the social protection system during the COVID-19 crisis. *Figure 3* presents the distribution of mean real per capita household income across the distribution in June 2020. Keeping our previously discussed adjustments to household income in mind, what is compelling is that not only is the average household's income in the poorest half of households R450 per person per month, but that the incomes of the poorest 80% of households does not exceed R2 500 per person per month. This is lower than the nationally legislated minimum wage of R3 500 per worker per month. On the other hand, the average household in the richest 10% of households has a per capita monthly household income nearly five times the national minimum wage, and more than 20 times the income of the median household. Even considering the pre-crisis distribution of household income using the 2017 NIDS Wave 5 data, we see that low earnings reaches households as far as those in the 7th decile. As expressed by Borat et al. (2020b), this implies that social assistance during the lockdown period need not only be designed as a standard poverty reduction exercise targeted at lower decile households.

²⁴ Available here: <https://www.datafirst.uct.ac.za/dataportal/index.php/catalog/434>

²⁵ For example, if we observe 95% of individuals within the bracket R1 000 - R2 000 gave actual Rand responses, then these individuals will get revised weights equal the sampling weight divided by 0.95. On the other hand, individuals within the bracket R20 000 – R30 000 where 35% gave actual Rand responses will get revised weights equal the sampling weight divided by 0.35. The latter will be weighted up relative to individuals in the lower bracket.

Figure 3: Mean real per capita household income across the distribution, June 2020



Source: NIDS-CRAM Wave 2. Authors' own calculations.

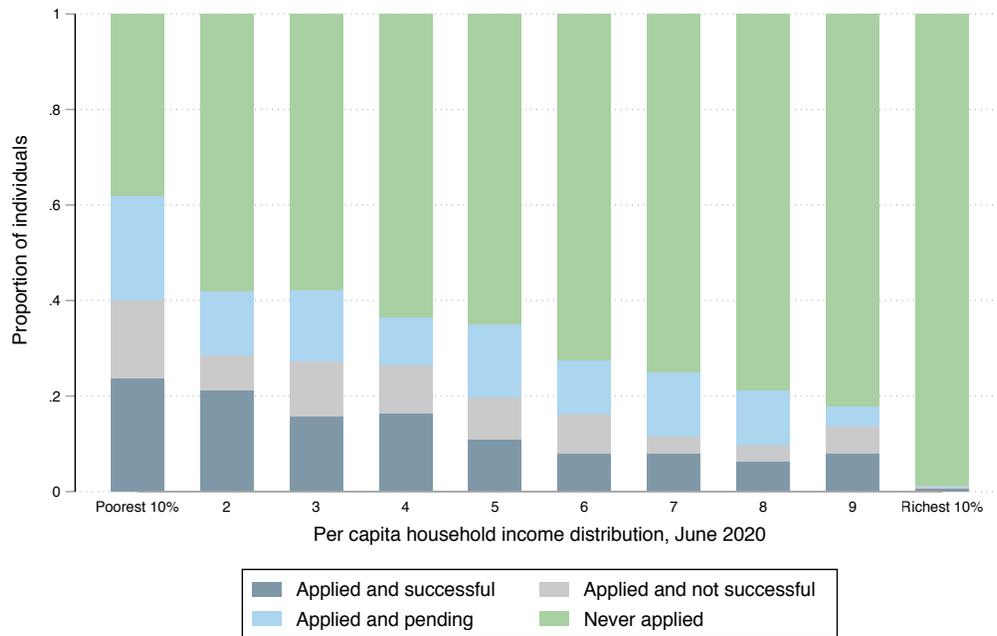
Notes:

[1] Data weighted using calculated bracket weight.

[2] Adjustments made to household income data are detailed in Section 3.1.2.

Given the extent of vulnerability across the household income distribution, we now turn to analysing the distribution of application for and receipt of the special COVID-19 SRD grant. We estimate that as of the time of the NID-CRAM Wave 2 survey in July and August 2020, of the 11.33 million individuals who reported applying for the grant, 4.32 million (nearly two in every five, or 38.1%) were successful. The remaining 7 million individuals either report a pending (4.35 million, or 38.5%) or rejected (2.65 million, or 23.4%) application. However, application for and receipt of the grant appears to have been relatively pro-poor: most individuals who applied for the grant, and were successful in their application, are in the middle and lower parts of the June 2020 household income distribution (see *Figure 4*). Conditional on applying, 23% of individuals (1.4 million) in the poorest quintile of households were successful, in contrast to 4.5% (250 000) in the richest quintile. Close to 90% of individuals in this latter group never applied, in contrast to nearly one in every two individuals in the poorest quintile. Up to the richest quintile, pending applications do not vary considerably across the distribution, although individuals in the poorest quintile of households were more likely than others to experience this outcome (17.64%, or 1.1 million individuals).

Figure 4: Application status of the special COVID-19 Social Relief of Distress Grant across the household income distribution, June 2020



Source: NIDS-CRAM Wave 2. Authors' own calculations.

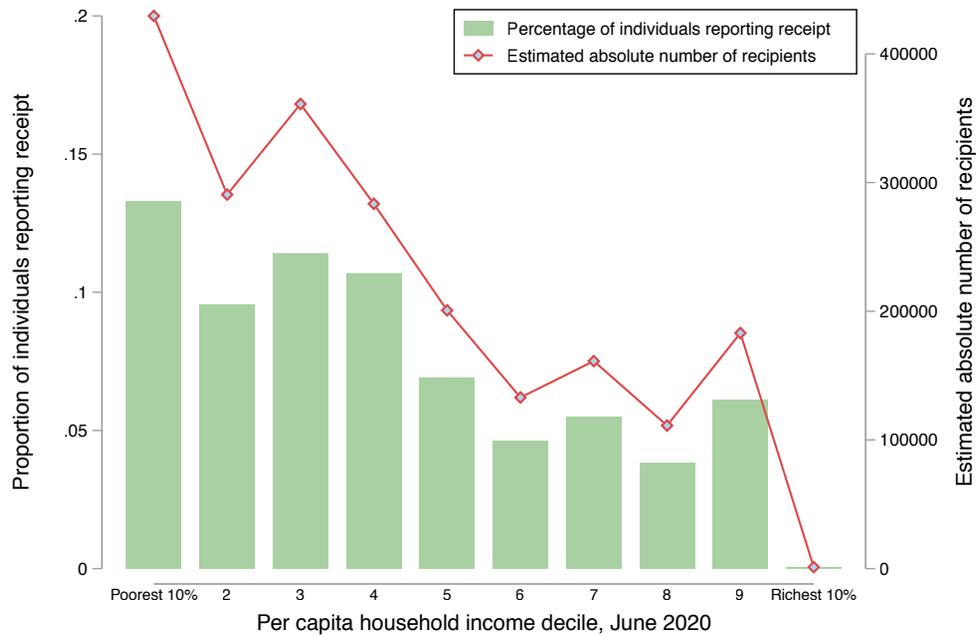
Notes:

[1] Data weighted using relevant sampling weight.

[2] The relevant question had no explicit reference period.

Although the above findings refer to application (successful or not) of the grant at the time of the survey, we can also analyse variation in actual receipt in June 2020. *Figure 5* presents the distribution of personal receipt of the COVID-19 SRD grant, in June 2020, across the June 2020 household income distribution. Our aforementioned finding holds: in both absolute and relative terms, individuals who live in poorer households were more likely than others to receive the grant. About 11.5% of individuals (or 720 000) who live in the poorest 20% of households received the grant in June 2020. This is in sharp contrast to the 3.3% (184 000) who live in the richest 20% of households. In other words, for every person who lived in quintile 5 households and received the grant in June, nearly four who lived in quintile 1 households received the grant. Household-level receipt was also progressive, as indicated in *Figure 6*: of the 7.9 million individuals who co-resided at least one household member who received the COVID-19 SRD grant in June, about three in every five (59.5%) live in the poorest 40% of households, as opposed to 5.6% who live in the richest quintile of households.

Figure 5: Distribution of personal receipt of the special COVID-19 Social Relief of Distress Grant across the household income distribution, June 2020

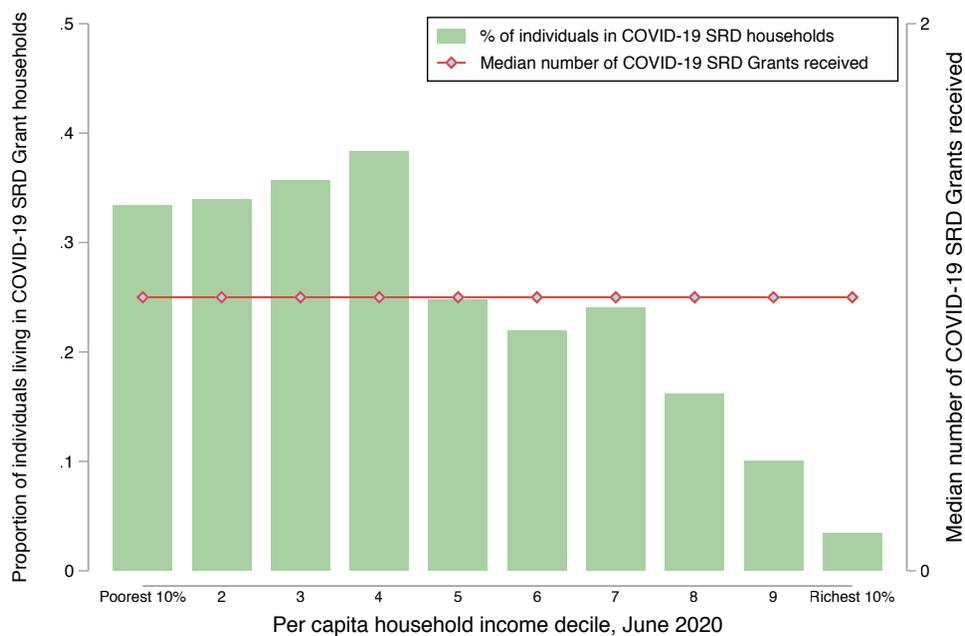


Source: NIDS-CRAM Wave 2. Authors' own calculations.

Notes:

[1] Data weighted using relevant sampling weight.

Figure 6: Distribution of household-level receipt of the special COVID-19 Social Relief of Distress Grant across the household income distribution, June 2020



Source: NIDS-CRAM Wave 2. Authors' own calculations.

Notes:

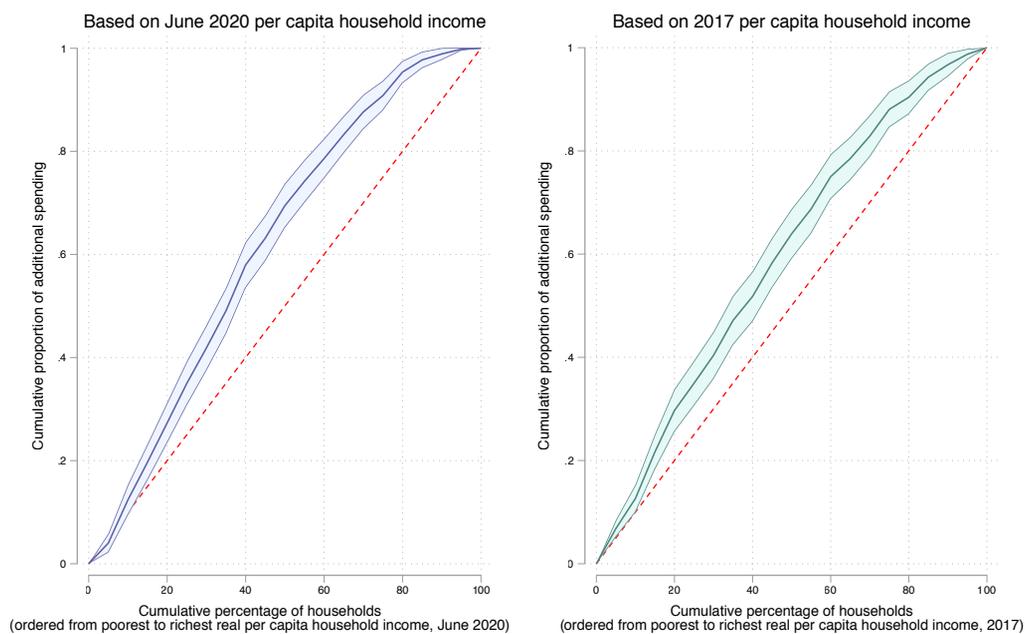
[1] Data weighted using relevant sampling weight.

Interestingly, when we consider personal receipt of the grant across the pre-crisis distribution of income (using 2017 NIDS Wave 5 data) amongst individuals who were living in the same household in June 2020, the distribution is less progressive relative to the June 2020 distribution. The relevant distribution is presented in *Figure A1* in the Appendix. Whereas 12% of individuals in the poorest

2017 quintile of households received the grant in June 2020 – not far off from the equivalent 2020 rate of 11.5% above - 10.5% of individuals in the middle of the 2017 distribution (quintile 3 households) received the grant, in contrast to 5.8% of individuals in the middle of the June 2020 distribution. This is not necessarily unexpected, considering that (i) as discussed above, low earnings and vulnerability extend far beyond the poorest household deciles in both 2017 and June 2020, and (ii) many households who were previously in the middle of the household income distribution have shifted down the distribution as a result of income losses stemming from the pandemic and national lockdown. Again, this highlights the notion that social protection during the lockdown period ought not to solely target the poorest household deciles, but additionally those who were adversely affected by the pandemic and previously unreached by the system.

The concentration curves in *Figure 7* further highlight the pro-poor nature of the distribution of the COVID-19 SRD grant in June 2020. The left panel plots the cumulative proportion of spending on the grant at the household-level (R350 multiplied by the number of COVID-19 SRD grants reportedly received in a respondent’s household) against the cumulative proportion of households ordered from poorest to richest by per capita household income in June 2020. Nearly 8 million individuals lived in a household that received the COVID-19 SRD grant in June. The left panel further shows that about 80% of the spending on the grant accrued to the poorest 60% of households; that is, households which had monthly per capita household incomes less than about R1 000. When we consider the right panel which presents the cumulative distribution of receipt based on individual’s pre-crisis household income — given that many households which were previously in the middle of the distribution prior to the crisis have shifted down — the distribution of the grant is still pro-poor and not substantially different; however, a greater proportion was distributed amongst those previously in the middle of the distribution.

Figure 7: Concentration curves of the total spending on the special COVID-19 Social Relief of Distress Grant on the household-level, by household income in June 2020 versus 2020



Source: NIDS Wave 5 and NIDS-CRAM Wave 2. Authors’ own calculations.

Notes:

[1] Data weighted using relevant sampling weight.

[2] Shaded region represents the 95% confidence interval.

[3] Sample for 2017 restricted to individuals who, at the time of the NIDS-CRAM Wave 2 survey, report living in the same household they did at the time of the NIDS Wave 5 survey in 2017 (75.3% of NIDS-CRAM Wave 5 sample).

Comparing the current social grants system (including its pandemic-induced expansion) to its pre-crisis version, the eligibility criteria of pre-existing grants have not changed. Importantly, however, the addition of the special COVID-19 SRD grant has resulted in millions of previously unreached

individuals now being brought into the social assistance system. This is the result of one particular eligibility criterion of the COVID-19 SRD grant: any individual who already receives any other social grant is ineligible to receive the grant. It is important to analyse the characteristics of these previously unreached individuals. *Table 4* presents several demographic characteristics of applicants and recipients of the COVID-19 SRD grant. Of the 2.7 million individuals who received the grant in June 2020, the majority were self-reported African (2.5 million) and male (1.7 million). This latter observation is likely due to the aforementioned eligibility criterion that current grant recipients — nearly 85% of whom are female — are not eligible to apply for the COVID-19 SRD grant. However, the fact that two in every three recipients in June were male is concerning, considering that two-thirds of individuals losing employment between February and April 2020 were women (Casale and Posel, 2020). However, even conditional on those that did apply, men were more likely than women to experience a successful application. The female share of COVID-19 grant recipients seems to have increased to about 44% at the time of the survey.

Individuals living in urban areas were less likely to have received the COVID-19 SRD grant in June relative to their non-urban counterparts and, conditional on applying, they were also less likely to experience a successful application. In absolute terms, the number of urban dwelling individuals who reported receipt of the grant in June is not dissimilar from their non-urban counterparts (both are approximately 1.36 million), although conditional on applying, a greater number were successful as of the time of the survey (2.37 million versus 1.94 million). Similarly, a greater absolute number of urban dwellers were not successful in their application relative to non-urban dwellers (1.5 million versus 1.1 million). Lastly, the probability of experiencing a non-successful application is not dissimilar between these two groups, although urban dwellers were significantly more likely to have never applied.

Considering the observed variation in the probability of (i) receipt of the COVID-19 SRD grant, (ii) applying for it, and (iii) experiencing a successful application (conditional on applying), such variation between groups of individuals may be explained by several other observable characteristics. One important question to answer is: what are the determinants of an individual experiencing a successful COVID-19 SRD grant application, conditional on applying? In this light, we use Maximum Likelihood Estimation (MLE) to estimate several probit models of the likelihood of experiencing a successful application, conditional on applying, on a vector of observable covariates; namely, sex, age, race, highest level of education, area and province of residence, marital status, employment status, usual main industry and occupation, and several household-related variables such as size, household income, its main source of income, and whether or not the household receives at least one CSG or OP grant. We use two dependent variables in our models. First, the 'broad' models estimate the likelihood of experiencing a successful application (conditional on applying) against experiencing a non-successful application (i.e. the application is either pending or was rejected). Second, the 'narrow' models compare the likelihood of a successful application to that of a strictly rejected application. We focus on the results of the narrow model, given that it is our preferred specification. The complete results of these models are presented in *Table A2* in the Appendix, while we summarise the results in the coefficient plot in *Figure 8* below.²⁶

²⁶ In *Figure 7*, we only show variables where the coefficient on at least one category (or in the case of a binary variable, the coefficient on the variable itself) was statistically significantly different from zero at the 10% level, with the exception of sex.

Table 4: Who was brought into the system? Characteristics of recipients, non-recipients, applicants, and non-applicants of the special COVID-19 Social Relief of Distress Grant

	At time of interview in July/August 2020												Received in June 2020	
	Applied, successful		Applied, not successful		Applied, pending		Never applied							
	Relative (%)	Absolute	Relative (%)	Absolute	Relative (%)	Absolute	Relative (%)	Absolute	Relative (%)	Absolute	Relative (%)	Absolute	Relative (%)	Absolute
All	12.28	4 317 323	7.54	2 650 302	12.39	4 357 969	67.79	23 800 000	7.60	2 674 892				
African	13.60	3 754 630	8.29	2 288 098	13.32	3 677 209	64.80	17 900 000	9.00	2 494 958				
Coloured	12.42	405 654	7.33	239 500	14.39	469 861	65.86	2 150 975	4.57	149 391				
Asian/Indian	6.60	56 173	11.84	100 772	19.00	161 777	62.56	532 619	0.08	710				
White	2.94	100 866	0.64	21 933	1.43	49 122	94.98	3 255 068	0.89	29 833				
Male	14.47	2 388 301	8.94	1 475 490	15.92	2 627 959	60.67	10 000 000	10.19	1 684 170				
Female	10.34	1 929 023	6.30	1 174 812	9.27	1 730 010	74.09	13 800 000	5.30	990 722				
Traditional area	15.26	376 995	6.66	164 544	13.48	332 882	64.59	1 595 287	10.90	269 242				
Urban	11.48	2 367 449	7.28	1 501 897	11.41	2 353 588	69.83	14 400 000	6.58	1 361 234				
Rural	13.49	1 565 332	8.08	937 085	14.37	1 667 352	64.06	7 431 182	8.98	1 041 497				
Per capita household income quintile, June 2020														
1	22.56	1 413 464	12.01	752 346	17.64	1 105 605	47.79	2 994 652	11.48	720 146				
2	16.09	933 634	10.79	626 143	12.73	738 326	60.39	3 503 113	11.08	644 542				
3	9.47	547 280	8.50	491 330	13.31	768 867	68.72	3 971 238	5.78	333 698				
4	7.10	413 429	3.56	207 110	12.41	722 611	76.94	4 480 242	4.67	272 438				
5	4.51	256 906	3.22	183 791	2.35	133 711	89.92	5 126 276	3.26	184 264				
Per capita household income quintile, 2017														
1	17.92	999 088	9.11	507 833	17.20	959 035	55.78	3 110 560	12.22	682 761				
2	12.83	802 586	8.93	558 677	12.57	786 283	65.68	4 110 091	8.23	514 808				
3	16.23	1 131 439	7.82	545 344	13.04	909 110	62.90	4 384 906	10.49	732 957				
4	11.13	835 769	6.93	520 126	15.49	1 163 296	66.45	4 990 094	7.09	537 950				
5	6.20	548 442	5.86	518 323	6.11	540 245	81.83	7 239 139	2.35	206 417				

Source: NIDS Wave 5 and NIDS-CRAM Wave 2. Authors' own calculations.

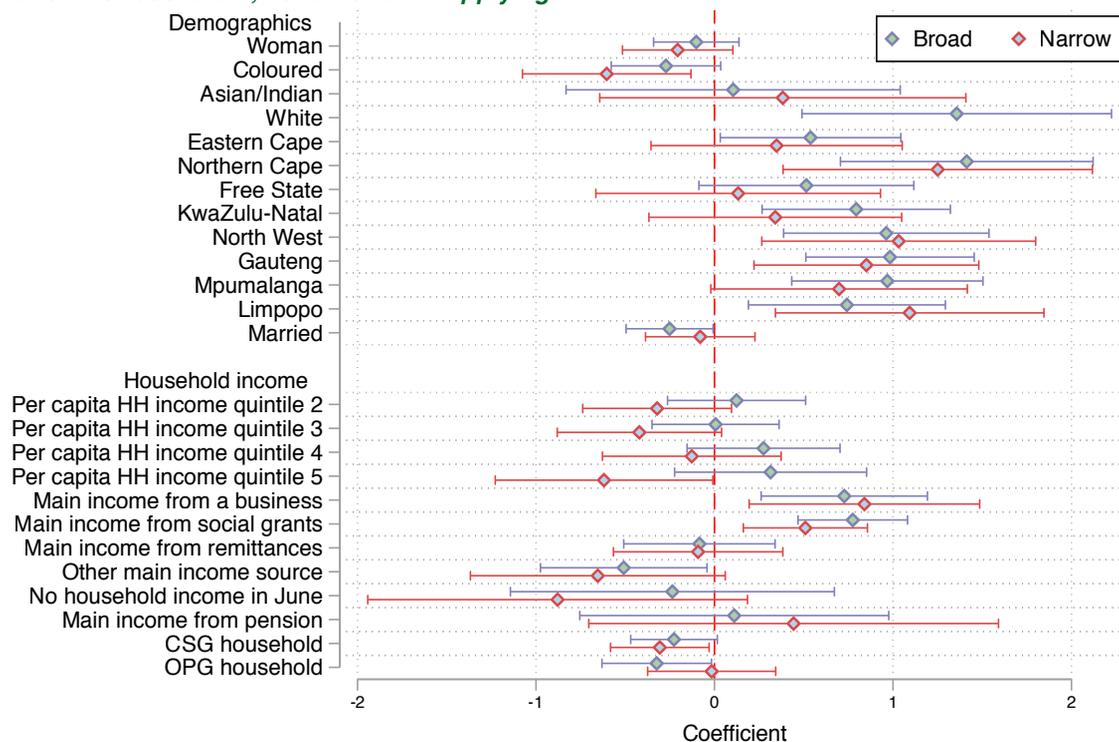
Notes:

[1] All estimates weighted using survey sampling weights after accounting for complex survey design.

Analysing the results of our probit models as presented in *Figure 8*, it is clear that conditional on applying, certain individuals are more likely than others to obtain a successful COVID-19 SRD grant application. The results are interpreted as the change in the probability of receiving the grant (conditional on applying) for a given individual/household characteristic, assuming all else constant. Considering demographics, it is notable that women are neither more nor less likely than men to experience a successful application conditional on applying. We observe significant variation in these probabilities across provinces, which may speak either to differences in relative efficiencies of provincial grant distribution systems, or other characteristics of the individuals who inhabit them. Relative to the Western Cape, those living in the Northern Cape, North West, Gauteng, and Limpopo are 0.85 to 1.25 times more likely to be successful in their application. We observe no significant differences in these conditional probabilities for individuals of varying marital statuses, levels of education, labour market statuses, or usual industry and occupation of employment.

Turning to household characteristics, it is notable that those who live in households where the main income source is from a business or social grant are significantly more likely to be successful in their application (84% and 51% respectively), relative to those whose main household income is from employment. Considering social grants are relatively well-targeted, this is analogous to our finding that individuals who live in the wealthiest 20% of households are 62% less likely than those in the poorest 20% of households to experience a successful application. On the other hand, individuals who live in households which receive the CSG are 31% less likely to experience this outcome relative to non-CSG-recipient households. This latter finding may be because such household members may not be eligible for the COVID-19 SRD grant (for instance, members are already recipients of another grant, or the age of other members (such as CSG beneficiaries: children) deems them ineligible).

Figure 8: The determinants of the probability of successful receipt of the special COVID-19 Social Relief of Distress Grant, conditional on applying



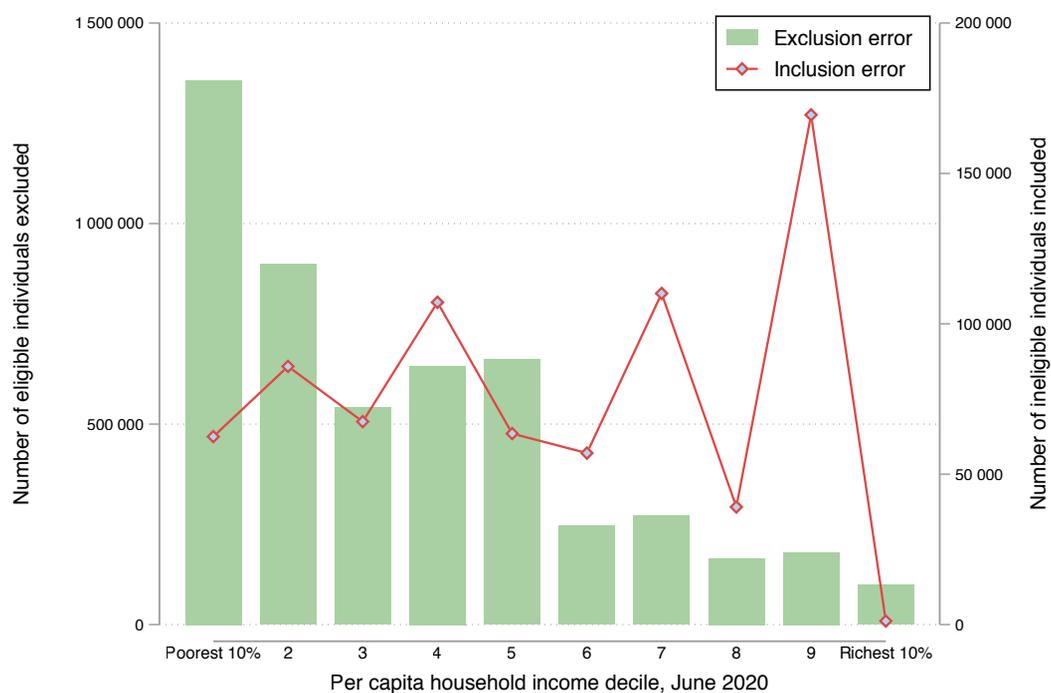
Source: NIDS-CRAM Wave 2. Authors' own calculations.

Notes:

- [1] All estimates derived from probit regression models weighted using survey sampling weights after accounting for complex survey design.
- [2] Complete regression models presented in *Table A1* in the appendix.
- [3] 'Broad' refers to models which have a binary dependent variable equal to one if, conditional on applying, a respondent reported being successful in their application, and zero if they report being either unsuccessful or their application was still pending; 'Narrow' models are similar, except this latter group is restricted to those who experienced a strictly rejected application.
- [4] Base groups for categorical variables = African, Western Cape, not married, main household income is from employment, per capita HH (household) income quintile 1.
- [5] Variables only presented here if one of their coefficients were statistically significant at least at the 10% level, with the exception of sex.
- [6] Estimate for the 'White' population group excluded from the 'Narrow' model due to an insufficient sample size.

We seek next to analyse under- and over-coverage of the COVID-19 SRD grant; that is, the number of eligible individuals who do not report receipt of the grant (exclusion error: under-coverage) and how many ineligible individuals there are that do (inclusion error: over-coverage). *Figure 9* presents the distribution of both exclusion and inclusion error across the household income distribution in June 2020.²⁷ What is immediately clear is that, despite the COVID-19 SRD grant's previously observed pro-poor distribution, the extent of under-coverage is regressive. We estimate that in June 2020, a total of nearly 6.5 million individuals were eligible for the COVID-19 SRD grant but did not report receipt, and half of these individuals (3.1 million) live in the poorest third of households. However, this is not necessarily unexpected, given that most of the eligible who do report receipt are also more likely to be in these households. Looking at inclusion errors — that is, ineligible individuals who do report receipt — we estimate them to be relatively low at about 900 000 individuals. Considering that we cannot identify all eligibility criteria for the grant in the NIDS-CRAM data, this number is likely overestimated. Indeed, in an audit of the pandemic-related social assistance spending as of the end of July 2020, the report of the Auditor-General of South Africa indicated just under 33 000 recipients who were not eligible to receive the grant because they they were employed in government or received income from other sources (Auditor-General, 2020). The payment of grants to these individuals was due to SASSA having limited access to various databases needed to adequately conduct their verification process. According to the Auditor-General's report, SASSA only uses a few databases from the UIF, SARS, and NSFAS to perform validation checks.

Figure 9: Exclusion and inclusion errors: Distribution of absolute number of eligible non-recipients and ineligible recipients of the special COVID-19 Social Relief of Distress Grant, June 2020



Source: NIDS-CRAM Wave 2. Authors' own calculations.

Notes:

[1] Data weighted using relevant sampling weight.

[2] An individual is regarded as eligible if they were not employed, were above the age of 18, did not receive any other social grant, and did not receive any UIF income or benefit in June 2020.

[3] An inclusion error is defined here as an ineligible individual reporting receipt of the COVID-19 SRD Grant in June 2020; an exclusion error is defined here as an eligible individual reporting non-receipt of the COVID-19 SRD Grant in June 2020.

27 It should be noted that given what is available in the NIDS-CRAM data, we are only able to code individuals as eligible for the grant by using limited eligibility criteria. Individuals here are coded as eligible if they are not employed, above the age of 18 years, do not receive any other social grant in June 2020, and did not receive any benefit from the UIF or TERS in June 2020. The data does not permit us to identify NSFAS beneficiaries, individuals who live in government-subsidised housing, or those who are eligible for UIF benefits. Therefore, our estimated number of eligible and therefore under-covered individuals is likely overestimated to some extent.

For targeting purposes, it is important to analyse who these eligible non-recipients of the COVID-19 SRD grant are. *Table 5* presents several demographic characteristics of those who are eligible to receive the grant but do not report receipt. We previously noted that nearly half of these individuals live in the poorest third of households. About half are women, and the majority are self-reported Black African. Nearly 55% (3.5 million) live in urban areas, and nearly three in every five (57%) are youth (18-34 years old). Lastly, the largest share of these individuals are those who have an incomplete secondary qualification (40%). Despite our high estimates of the number of eligible non-recipients, it should also be noted that there may be a number of eligible non-recipients and recipients who are not in distress. For instance, students above the age of 18 who reside with their parents, university students who are self-funded or who have funding from the private sector, persons who technically have no income but are fully supported by their spouses, and self-employed individuals who are not registered with the South African Revenue Service (SARS). Despite this, until SASSA has access to data from all relevant databases in both the private and public sectors, it is likely that payments will continue to be made to ineligible individuals whereas some of the eligible who seek to apply may continue to be excluded. This may have a substantial impact on the total amount paid over the six month period, straining an already-limited budget as discussed in Section 2.2 of this paper (Auditor-General, 2020).

Table 5: Examining under-coverage: Characteristics of eligible non-recipients of the special COVID-19 Social Relief of Distress Grant, June 2020

	Real per capita household income tercile, June 2020						Total	
	1		2		3		Relative	Absolute
	Relative	Absolute	Relative	Absolute	Relative	Absolute		
Total eligible non-recipients	49.68	3 195 513	18.60	1 196 134	10.51	675 813	100.00	6 432 491
Male	47.65	1 598 234	14.15	474 562	9.54	320 100	100.00	3 353 932
Female	51.88	1 597 278	23.44	721 572	11.55	355 714	100.00	3 078 560
African	51.06	2 798 951	19.81	1 085 942	6.88	376 899	100.00	5 481 513
Coloured	48.76	332 307	14.65	99 835	23.26	158 537	100.00	681 453
Indian/ Asian
White	11.46	15 763	.	.	48.89	67 233	100.00	137 532
Urban	55.09	1 902 522	14.25	492 097	13.33	460 393	100.00	3 453 285
Non-urban	43.40	1 261 146	23.58	685 066	7.02	203 923	100.00	2 905 769
18-34	44.70	1 636 315	20.33	744 096	11.38	416 474	100.00	3 660 969
35-49	55.50	1 043 437	18.97	356 648	6.52	122 634	100.00	1 880 088
50-64	60.20	508 034	10.49	88 503	14.88	125 597	100.00	843 965
65+	20.07	7 727	17.90	6 888	28.86	11 109	100.00	38 490
Up to Primary	67.09	516 428	9.24	71 134	4.43	34 125	100.00	769 795
Up to Secondary	52.28	1 366 350	22.17	579 416	4.25	111 077	100.00	2 613 520
Matric	40.28	703 228	21.66	378 141	15.94	278 196	100.00	1 745 690
Tertiary	46.76	609 506	12.85	167 444	19.36	252 416	100.00	1 303 486

Source: NIDS-CRAM Wave 2. Authors' own calculations.

Notes:

[1] Data weighted using relevant sampling weight.

[2] Sample restricted to individuals who are regarded as eligible for the special COVID-19 SRD grant; that is, those were above the age of 18, did not receive any other social grant, and did not receive any UIF income or benefit in June 2020.

[3] Estimates may not sum to total due to missing data.

4.2. Examining changes to the Child Support Grant: a “per grant” versus “per caregiver” top-up

We now turn to our analysis on the progressivity of the varied top-ups of the CSG. As discussed in Section 2.2., the CSG was increased by R300 per grant for May (a nearly 70% increase attributable to a relatively low pre-COVID-19 level of R440) and R500 per caregiver per month from June to October 2020. These top-ups benefit approximately 7.2 million recipients (caregivers) and 12.8 million beneficiaries (children) (SASSA, 2020). We calculate that the cost of the chosen policy is slightly more expensive than a six-month R500 per caregiver top-up, but substantially cheaper than a six-month R300 per child top-up. As shown in *Table 6*, we calculate the additional spending on the R300 per child top-up to be about R1.44 billion more expensive than the R500 per caregiver top-up over a hypothetical six month period, ignoring administrative costs. The cost of the chosen policy amounts to R21.84 billion for the whole six month period and is thus in between the two aforementioned hypothetical policies: R1.2 billion cheaper than the per child top-up and R240 million more expensive than the per caregiver top-up.

Table 6: A comparison of the costs of the chosen Child Support Grant top-up policy versus two hypothetical policies

	Top-up amount (Rands per month)	Number of caregivers or beneficiaries (millions)	Additional spending per month (R billions)	Additional spending over 6 months (R billions)
Strictly per child top-up	300	12.8	3.84	23.04
Strictly per caregiver top-up	500	7.2	3.60	21.60
Chosen policy	300 per child in May, 500 per caregiver from June to October	12.8 beneficiaries in May, 7.2 caregivers from June to October	3.84 in May, 3.60 per month from June to October	21.84

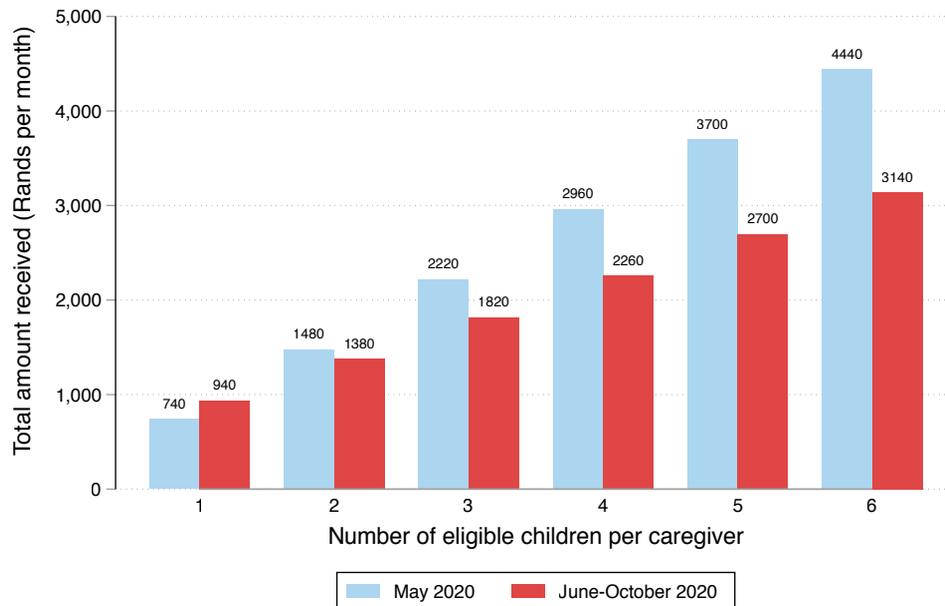
Source: Based on social grant top-up amounts in Government Gazette No. 43300 dated 9 May 2020 and number of Child Support Grant recipients and caregivers as of June 2020 as per SASSA (2020). Authors' own calculations.

Notes:

[1] Costs amount to the total value of social grants distributed in a given period and ignores any accompanying administrative costs.

We presume that the realised policy was chosen due to the additional top-ups to all other existing grants, as well as the introduction of the special COVID-19 SRD grant, all for six months. The per caregiver top-up, however, does not consider variation in the number of beneficiaries (children) per recipient, with implications for the total amount of resources being distributed to households that vary in size. A simple analysis is provided in *Figure 10* which shows how the total monthly amount of the expanded CSG(s) received by recipients (caregivers) varies by the number of beneficiaries (children). It is clear that a household's benefit of this chosen policy depends on the number of beneficiaries. Although caregivers with one child will benefit relatively more per month from June onwards relative to May (due to the per caregiver top-up of R500 being in excess of the per child top-up of R300), those with two or more children benefit more in May relative to June onwards. For instance, a caregiver with six children receives R4 440 per month under the per child top-up policy, but R3 140 per month under the per caregiver top-up policy. Although the per child top-up is more expensive, we believe an evaluation of the differences in the progressivity of these two policies is of importance.

Figure 10: Variation in total monthly amount of the Child Support Grant received by number of eligible children, May to October 2020.

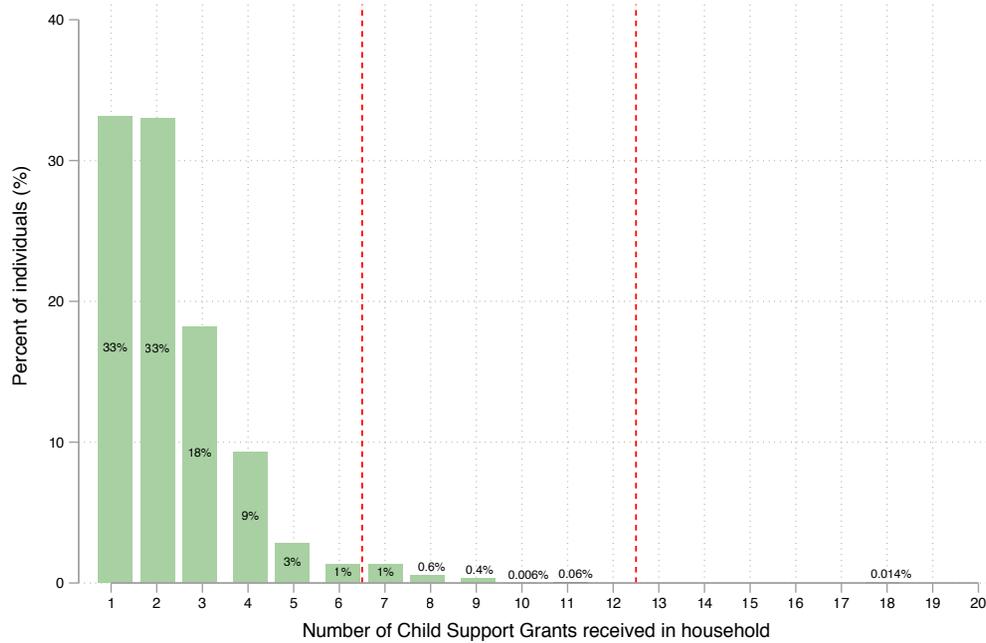


Source: Based on Government Gazette No. 43300 dated 9 May 2020. Authors' own calculations.

In order to compare the progressivity of the per child top-up to the per caregiver top-up, we require data on the number of caregivers and beneficiaries in CSG-receiving households. As discussed in Section 3.3.1., in the NIDS-CRAM we have data on the number of beneficiaries per household (that is, the number of CSGs received in the sampled individual's household), but we do not have data on the number of caregivers per household. As an imperfect solution to this problem, we use data on the number of CSGs received per household in the data and legislative information on the number of eligible children permitted per caregiver to impute the number of caregivers per CSG-receiving household. Current legislature states that each caregiver is only permitted to get the CSG for up to six children who are their legally adopted or biological children. Thus, we use intervals of six as thresholds for our assumption on the number of caregivers. That is, we assume one caregiver per household that receives six or less CSGs, two caregivers per household that receives between seven and 12 CSGs, and three caregivers per household that receives between 13 and 18 CSGs.²⁸ *Figure 11* presents the relevant distribution of the number of CSGs received in June 2020.

²⁸ No individuals in the NIDS-CRAM Wave 2 data report living in a household that receives more than 18 CSGs.

Figure 11: Distribution of the number of Child Support Grants received within recipient households, June 2020



Source: NIDS-CRAM Wave 2. Authors' own calculations.

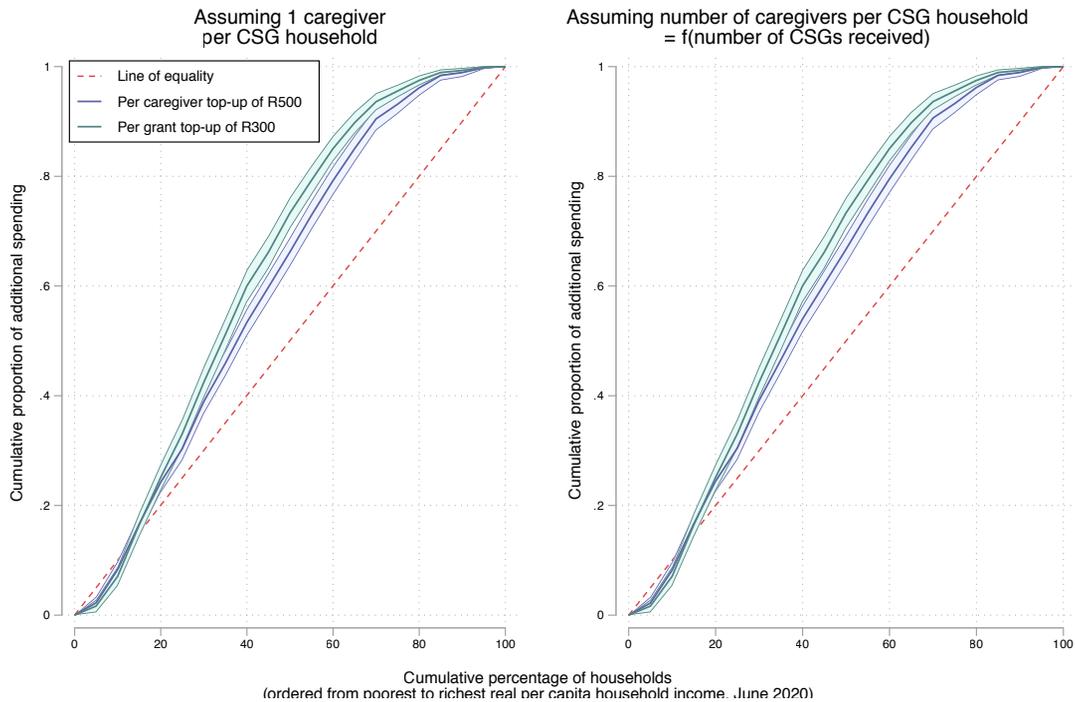
Notes:

[1] Data weighted using relevant sampling weight.

[2] Red vertical lines relate to the maximum number of grants (six) permitted per caregiver in current legislature (one cannot get the grant for more than six children who aren't their legally adopted or biological children).

Following these assumptions, the results of our analysis are summarised in *Figure 12*. The concentrations curves plot (for June 2020) the cumulative proportion of actual additional spending on the CSG (the per caregiver top-up of R500 per caregiver) and the cumulative proportion of hypothetical additional spending on the CSG if the top-up instead was the R300 per child top-up. Both are plotted against the cumulative proportion of households ordered from poorest to richest by per capita household income in June 2020. The left panel presents our results if we assume each CSG-receiving household has one caregiver, whereas the right panel presents our results if we assume the number of caregivers per CSG-receiving household depends on the number of CSGs received in the household (as discussed in the previous paragraph). Regardless of the assumption we make, it is clear that although both the per child and per caregiver top-ups of the CSG are progressive, the per-child policy is more progressive than the per-caregiver policy. The CSG is relatively well-targeted at the poorest households, implying that any increase in the grant amount will be pro-poor. However, this result emerges because more than two-thirds (66.8%) of CSG-receiving households receive more than one CSG. If both policies hypothetically took place in June 2020, our estimates suggest that 60% of additional spending on the per child top-up would have accrued to the poorest 40% of households, as opposed to the poorest 45% under the realised per caregiver top-up. Therefore, although the per-child policy is more progressive than the per-caregiver policy, it is only marginally more so.

Figure 12: Concentration curves of additional spending on the Child Support Grant, June 2020: per-grant versus per-caregiver top-up



Source: NIDS-CRAM Wave 2. Authors' own calculations.

Notes:

[1] Data weighted using relevant sampling weight.

[2] Shaded region represents the 95% confidence interval.

[3] Left panel assumes one caregiver per CSG-receiving household; right panel assumes one caregiver per household that receives 1 to 6 CSGs, two caregivers per household that receives 7 to 12 CSGs, and three caregivers per household that receives 13 to 18 CSGs.

4.3. Beyond the cessation of the grant system's expansion in October: Examining alternative policy options

As previously discussed, the South African government's expansion of social assistance with respect to social grants is due to come to an end in October 2020. However, if the adverse labour market effects of the COVID-19 pandemic continue to persist and disproportionately burden vulnerable individuals and households, policymakers ought to consider implementing appropriate policy beyond October. Many policy options are available, all of which require in-depth analysis which is out of this paper's scope. However, in this section we provide a brief analysis of several possible post-October social assistance policies for government to consider. For all policies, we provide estimates on the number of recipients or beneficiaries, the required monthly additional spending, expected reduction in poverty, and a benefit:cost ratio. Our poverty reduction estimates are calculated using the NIDS-CRAM Wave 2 data as the difference (i.e. with and without the policy in place) in the number of individuals living in households with a real per capita monthly household income below the inflation adjusted StatsSA food poverty line (about R585 per person per month in July 2020 Rands). The benefit:cost ratio is simply calculated as the absolute reduction in poverty per millions of additional Rands spent per month.

We consider three alternative policies. First, an extension of the current policy package; that is, the top-ups to existing social grants and the availability of the special COVID-19 SRD grant remain in place.²⁹ Second, a Basic Income Grant (BIG) targeted at individuals who are between the age of 18 and 60 years, are not employed, and do not receive any social grant or benefits from the UIF. Our analysis of this policy is motivated by the Department of Social Development's recent consideration

²⁹ For the Child Support Grant top-up, we refer to the R500 per caregiver top-up as from June 2020 onwards.

of such a grant.³⁰ For this policy, we consider a BIG of two transfer values: one equal to the inflation-adjusted StatsSA food poverty line of R585 per person per month, and another approximately equal to the StatsSA upper-bound poverty line (R1 200 per person per month). Third, we consider a targeted employment guarantee which we refer to as the COVID-19 Public Works Programme. This policy seeks to provide limited employment to the eligible and a transfer in the form of a wage. We've set the wage equal to the National Minimum Wage (NMW) of R20 per worker per hour and restrict working hours to 10 hours per worker per week. The eligible criteria for this policy are identical to those we use to identify the eligible for the BIG.

The results of our analysis are provided in *Table 7*. We estimate that an extension of the current policy package (the grant top-ups and the availability of the COVID-19 SRD grant) will benefit the highest number of individuals relative to the other policies considered here: nearly 17 million; that is, the number of existing grant recipients, not beneficiaries (as of the end of June 2020) as well as of the number of COVID-19 SRD grant recipients (as of 2 September 2020). On the other hand, our targeted BIG and COVID-19 Public Works Programme, each subject to the same eligibility criteria, are estimated to benefit 7.6 million individuals. However, we estimate that an extension of the current policy package will also be amongst the most expensive: R6.8 billion per month in additional spending. The Public Works Program is not far off at R6.4 billion per month. The cheapest policy analysed here is the BIG of R585 per person per month, estimated to cost about R3.8 billion per month, whereas the BIG of R1 200 is the estimated to be most expensive at R9.1 billion per month. However, these costs do not account for the benefits that result from the policies, measured here simply by the reduction in poverty. Given its large transfer amount, we estimate that a BIG of R1 200 can result in the per capita household incomes of 1.8 million individuals rising above the food poverty line. The welfare effects of an extension of the current policy package, however, are slightly higher at 2.1 million individuals, whereas the equivalent estimate for the COVID-19 Public Works Programme is 1.2 million individuals. However, one ought to consider the additional benefit of this policy which the others do not directly provide: limited employment. The merits and costs of each policy can be compared through the use of benefit:cost ratios presented in the last column of *Table 7*. It is clear the an extension of the current policy package exhibits the highest ratio; that is, for every million rand spent on the policy, the per capita household incomes of 307 individuals will exceed the food poverty threshold, as opposed to 236 and 197 for the respective R1 200 and R585 BIG's and 187 for the COVID-19 Public Works Programme.

30 <https://www.dailymaverick.co.za/article/2020-07-14-basic-income-grant-on-the-table-for-south-africas-unemployed-poor/>.

Table 7: Analysis of three alternative social assistance policies to consider post-October 2020

Policy option	Eligibility criteria	Estimated number of recipients	Estimated additional spending (Millions of Rands per month)		Absolute poverty reduction	Benefit: cost ratio
(1) Extension of current package	Subject to current legislated criteria	16 998 022	6 836.23		2 100 000	307.19
(2) Targeted Basic Income Grant	Between 19-59 years old	7 622 921	Grant of R585	3 811.46	900 000	236.13
	Not employed			Grant of R1200	9 147.51	1 800 000
	Not currently a recipient of any social grant or UIF benefit					
(3) COVID-19 Public Works Programme (hourly wage = NMW of R20 for 10 hours per week)	Between 19-59 years old	7 622 921	6 403.25		1 200 000	187.40
	Not employed					
	Not currently recipient of any social grant or UIF benefit					

Source: Data from NIDS-CRAM Wave 2, SASSA (2020), and Government Gazette No. 43300 dated 9 May 2020. Authors' own calculations.

Notes:

[1] Estimated number of recipients for (2) and (3) weighted using relevant sampling weights after accounting for complex survey design. Number of recipients for (1) obtained from total number of grant recipients as of June 2020 (11.4 million) as per SASSA (2020) and COVID-19 SRD grant recipients (5.5 million) as of 2 September 2020.

[2] Benefit:cost ratio is simply the absolute reduction in poverty per millions of additional Rands spent per month.

[3] COVID-19 Public Works Programme assumes an hourly wage equivalent to the National Minimum Wage of R20 and is limited to 10 working hours per week, assuming 4.2 weeks per month.

[4] All policies assume 100% take-up.

[5] Additional spending does not account for any potential additional administrative costs.

Overall, our estimates suggest that an extension of the current grant policy package will lead to the greatest reduction in poverty for a given amount spent relative to the other policies analysed here. However, although we regard our analysis here as useful, it ought to be regarded as preliminary. For instance, we only consider the effects of the policies on the headcount poverty rate at the food poverty line, and not poverty depth or severity at this line or any alternative lines. Here, we use the number of grant recipients as of June 2020 (and the number of COVID-19 SRD grant recipients as of the beginning of September 2020), which is subject to change as the COVID-19 SRD grant continues to roll-out. These policies can also be analysed with alternative eligibility criteria, such as not permitting individuals to apply if they live in state-subsidised housing or receive any NSFAS or private sector funding. The analysis of each policy here assumes 100% take-up which is likely an extreme upper-bound. Our analysis also does not consider the relative progressivity of each policy (although given our findings in Sections 4.1 and 4.2, we believe each will be pro-poor to some extent). The analysis on the COVID-19 Public Works Programme here does not consider government's capacity to generate employment. Policymakers also ought to consider whether the implementation of any policy complements or substitutes existing social assistance policy, and whether or not these policies ought to be considered mutually exclusive. Lastly, this analysis does not consider the source of financing for any of the three policies. As such, a more thorough analysis of policy alternatives ought to be conducted prior to any implementation.

5. Conclusion and policy recommendations

In this paper, we sought to provide a three-part analysis by making use of the newly available Wave 2 NID-CRAM data. First, we conducted an analysis of the distribution of application and receipt of the special COVID-19 SRD Grant. We find that the COVID-19 grant has brought millions of previously unreached individuals into the system, and application for and receipt of the grant has been relatively pro-poor. However, many of these recipient households were previously in the middle of the income distribution and have shifted down due to the pandemic. This highlights that vulnerability extends far across the distribution, beyond the poorest households. As such, we emphasise that social assistance during the lockdown period need not be solely designed as a standard poverty reduction exercise aimed at the poorest households. We also find that certain individuals are more likely than others to be successful in their COVID-19 grant application, and that despite the grant's progressivity, the extent of under-coverage is regressive. Until SASSA has access to data from all relevant databases, it is likely that payments will continue to be made to ineligible recipients while many of the eligible will remain excluded.

Second, we analysed how the CSG 'per grant' top-up in May 2020 compares to the 'per caregiver' top-up in place from June 2020 onwards. We find that although both policies are progressive, the 'per child' top-up is more pro-poor than the 'per caregiver' top-up, but only marginally, because most CSG-receiving households receive more than one CSG. However, we show that the cost of the chosen policy is substantially cheaper than a six-month R300 'per child' top-up. We presume that the chosen policy was chosen due to the additional top-ups to all other existing grants, as well as the introduction of the COVID-19 SRD grant.

Third and finally, considering the expansion of the grants system comes to an end after October, we analysed and discussed the costs and welfare effects of several alternative policy options. These included an extension of the current policy package of social assistance, a Basic Income Grant (BIG) of two varied amounts, and an employment guarantee we refer to as the COVID-19 Public Works Programme. This is important to consider particularly if the adverse labour market effects of the pandemic persist and disproportionately burden vulnerable individuals and households. Our estimates suggest that an extension of the current grant policy package may be preferable to a Basic Income Grant (BIG) or public works programme for a given amount spent. Although a BIG of R1 200 exhibits significant potential to reduce poverty, it costs nearly 50% more than an extension of the current policy package. We conclude by noting that although this analysis is useful, we regard it as preliminary given that it does not consider all relevant factors including financing, varied eligibility criteria, depth and severity of poverty, and progressivity to name a few. A more thorough analysis of policy alternatives ought to be conducted prior to any implementation.

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Appendix

Table A1: Probit models of the probability of having missing June 2020 household income data, before and after adjustments to household income variable

	Before adjustments	After adjustments
Female	0.037	-0.137
35-49	-0.157	0.027
50-64	0.044	0.433**
65+	-0.350	0.015
Coloured	-0.087	-0.690**
Asian/Indian	-0.984*	-0.901
White	-0.708**	-0.961**
Urban	-0.050	0.053
Up to Secondary	-0.015	-0.200
Matric	0.102	0.061
Tertiary	0.129	0.217
Eastern Cape	-0.493*	-0.433
Northern Cape	0.035	0.184
Free State	-0.397	-0.219
KwaZulu-Natal	0.246	0.084
North West	0.108	0.407
Gauteng	0.186	0.437*
Mpumalanga	0.303	0.557*
Limpopo	0.370	0.467
Managers	-0.573	-0.662**
Professionals	-0.542	-0.387
Technicians	-0.231	0.231
Clerks	0.047	0.500**
Service workers	-0.465	0.162
Skilled agriculture	-0.293	0.641
Craft	-0.176	0.033
Plant operators	-0.844	-0.604*
Elementary occupations	-0.460	0.000
Agriculture	0.075	-0.192
Mining and Quarrying	-0.113	-0.167
Manufacturing	0.082	-0.008
Utilities	0.097	0.466

Construction	0.031	-0.001
Trade	0.374*	0.237
TSC	0.001	0.332
Finance	0.286	0.021
CSP services	0.233	0.080
Married or has a partner	0.176	0.259*
IsiXhosa	0.627	-0.716*
IsiZulu	0.327	-0.456
Sepedi	0.549	0.000
Sesotho	0.378	-0.260
Setswana	0.406	-0.368
siSwati	0.106	-1.790***
Tshivenda	-1.527***	-2.251***
Xitsonga	-0.427	-1.050**
Afrikaans	0.760	0.279
English	0.516	0.000
Written contract	-0.036	-0.019
Household size	0.063***	0.022
Per capita household income quintile, 2017		
2	-0.141	-0.416*
3	0.080	-0.345
4	-0.276	-0.427*
5	0.245	-0.088
Constant		
Constant	-1.070	-1.071*
Observations	1 798	1 772
F statistic	2.34	2.92
Prob > F	0.000	0.000

Source: NIDS Wave 5 and NIDS-CRAM Wave 2. Authors' own calculations.

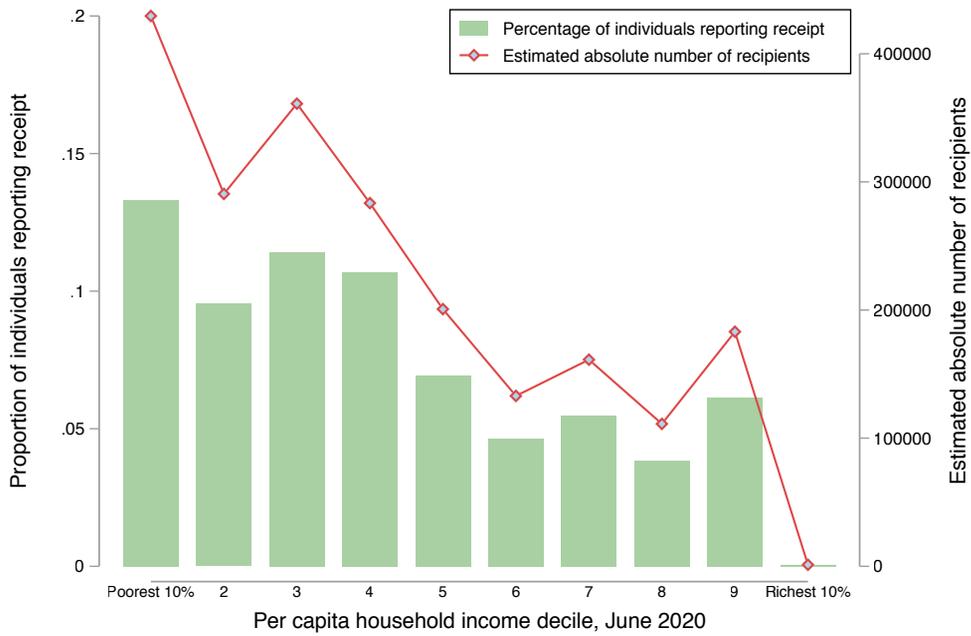
Notes:

[1] All models weighted using relevant sampling weight after accounting for complex survey design.

[2] The 'Before adjustments' model predicts the likelihood of having missing household income data in June 2020 before we adjust household income for bracket responses; the 'After adjustments' model includes these adjustments.

[3] Base groups for categorical variables = age group 15 - 34, African, Up to primary, Western Cape, Armed forces, Private households, Home language is isiNdebele, Per capita household income quintile 1 in 2017.

Figure A1: Distribution of personal receipt of the special COVID-19 Social Relief of Distress grant in June 2020, across the pre-crisis (2017) household income distribution



Source: NIDS-CRAM Wave 2 and NIDS Wave 5. Authors' own calculations.

Notes:

[1] Data weighted using relevant sampling weight.

[2] Sample restricted to individuals who, at the time of the NIDS-CRAM Wave 2 survey, report living in the same household they did at the time of the NIDS Wave 5 survey in 2017 (75.3% of NIDS-CRAM Wave 5 sample).

Table A2: Probit models of the probability of successful receipt of the special COVID-19 Social Relief of Distress Grant, conditional on applying

Definition of unsuccessful application:	Broad			Narrow		
	(1)	(2)	(3)	(4)	(5)	(6)
Demographics						
Woman	0.111	0.114	-0.102	0.028	-0.025	-0.206
Age	0.017	0.049	0.066	0.003	0.074*	0.099**
Age squared	-0.000	-0.001*	-0.001	-0.000	-0.001**	-0.001**
Coloured	0.104	-0.039	-0.272	-0.059	-0.122	-0.604**
Asian/Indian	-0.582	-0.322	0.105	-0.478	-0.056	0.383
White	0.846**	0.666	1.357**	1.347***	1.778***	.
Up to Secondary	-0.346*	-0.274	-0.064	-0.397*	-0.311	-0.026
Matric	-0.331	-0.267	0.058	-0.447*	-0.288	0.046
Tertiary	-0.478**	-0.400	-0.140	-0.638**	-0.385	-0.255
Urban	0.049	0.100	0.055	-0.143	-0.197	-0.124
Eastern Cape	0.265	-0.033	0.538*	-0.053	-0.450	0.348
Northern Cape	0.441	0.331	1.413***	0.310	0.217	1.251**
Free State	0.199	0.064	0.515	-0.094	-0.156	0.133
KwaZulu-Natal	0.376	0.147	0.794**	-0.201	-0.409	0.341
North West	0.520*	0.467	0.963***	0.111	0.186	1.032**
Gauteng	0.483**	0.263	0.983***	0.323	0.058	0.851**
Mpumalanga	0.439*	0.224	0.968***	0.027	-0.213	0.698
Limpopo	0.559**	0.274	0.742**	0.447	0.417	1.094**
Married	-0.249**	-0.292**	-0.252*	-0.209	-0.252	-0.080
Labour market						
Unemployed (strict)		-0.003	-0.083		-0.007	-0.183
Employed		-0.213	-0.185		-0.071	0.002
Professionals		-0.198	0.355		-0.299	0.022
Technicians		-0.560	-1.017		-0.507	-0.863
Clerks		-0.555	-0.464		-0.507	-0.173
Service and sales workers		-0.599	-0.372		-0.464	-0.207
Skilled agriculture		-0.527	0.282		0.762	0.604
Craft workers		-0.232	-0.125		-0.305	-0.277
Plant operators		-0.305	-0.590		-0.440	-0.809
Elementary occupations		-0.636	-0.389		-0.312	-0.100
Never worked		-0.299	-0.009		-0.096	-0.038

Private households		0.104	0.281		0.338	0.291
Mining and Quarrying		0.478	0.774		0.938	0.715
Manufacturing		-0.606*	-0.367		-0.253	-0.132
Utilities		0.386	0.259		1.063*	0.587
Construction		-0.022	0.277		0.322	0.385
Trade		0.218	0.510		0.499	0.437
TSC		0.177	0.477		0.697	0.657
Finance		-0.283	-0.123		0.065	0.083
CSP services		0.308	0.475		0.507	0.154
Household						
Household size			-0.030			-0.039
Per capita income quintile 2, June 2020			0.124			-0.321
Per capita income quintile 3, June 2020			0.006			-0.421
Per capita income quintile 4, June 2020			0.275			-0.127
Per capita income quintile 5, June 2020			0.314			-0.619*
Income from a business			0.727**			0.840**
Income from government grants			0.775***			0.509**
Income from remittances			-0.084			-0.092
Other source of income			-0.509*			-0.654
No household income in June			-0.236			-0.879
Income from pension			0.111			0.443
CSG household			-0.227			-0.306*
OPG household			-0.324*			-0.016
Constant						
Constant	-0.528	-0.572	-2.228**	0.968*	-0.164	-1.375
Observations	1 762	1 304	950	1 120	804	605
F statistic	2.01	2.68	2.65	2.04	1.83	1.85
Prob > F	0.0070	0.0000	0.0000	0.0063	0.0025	0.0011

Source: NIDS-CRAM Wave 2. Authors' own calculations.

Notes:

[1] All models weighted using relevant sampling weight after accounting for complex survey design.

[2] 'Broad' models have a binary dependent variable equal to one if, conditional on applying, a respondent reported being successful in their application, and zero if they report being either unsuccessful or their application was still pending; 'Narrow' models have a similar dependent variable except it equals zero only if the respondent reports being unsuccessful.

[3] Base groups for categorical variables = African, Up to primary, Western Cape, Unemployed (discouraged), Managers, Agriculture, Main household income is from employment, June 2020 per capita household income quintile 1. [4] Self-reported White respondents automatically omitted from model (6) due to unavailable data.

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