Proposal for the extension, redesign and repurposing of the SRD for the twin goals of poverty and unemployment reduction

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Executive summary

1. Cash grants as both poverty reduction and employment stimulus: international and local evidence.

The SRD has led to major reductions in food poverty. Without it roughly a quarter of the South African population (15 million individuals) live below the food poverty line of R624 per month, without enough income to buy a basic basket of food items necessary for survival. Estimates for December 2021 show the impact of the SRD to have reduced the number of people living below the food poverty line by roughly 2 million people (3.4 percentage points, from 20.3 to 17 percent).[i] [1]

There is strong international evidence from multiple developing countries that cash grant programmes do not discourage people from working or searching for a job. There is evidence that job seekers face search costs that prevent them from finding work. Cash transfers have been found to finance an increase in job search or labour force participation. Cash grants lead to higher yields for agricultural households and may enable people to start businesses.

We argue that it is important to implement a more permanent version of the Special COVID-19 Social Relief of Distress grant (hereafter "SRD"). The grant will support unemployment reduction through increases in job-search and economic activity and have a large impact on poverty reduction.

2. The evolution of the Social Relief of Distress (SRD) grant

In April 2022 a new approach to verifying grant eligibility was applied. Receipt of the grant is now determined by total inflows into bank accounts, with no discernment regarding the source of the in-flows. Such a process allows for double-counting of income within one household, in that income may be counted once at the original recipient's bank account, and counted again at the household member's account if money is transferred between household members - essentially applying a confusing mix of individual and per capita means-targeting combined with a very low threshold.[2] While designed to minimise errors of inclusion, it has likely simultaneously increased exclusion errors to very high rates.

[1] Note that this estimate is based on the NIDS 2017 data, which has a lower food poverty headcount than the LCS 2014/15.

[2] By "double-counting" of income, we refer to the fact that the income is counted once at the original recipient's bank account, and counted again at the household member's account if money is transferred between household members. While the means test is theoretically applied to individual income, in reality the South African Social Security Agency (SASSA) does not distinguish between sources of income, and individuals may therefore be excluded based on individual income or intra-household transfers, and income may also be double-counted (see the section on the current means test).

3. Why target the cash grant at poorer households and why use an income threshold?

Medium term proposal for SRD design

We propose that the SRD should continue to be funded in the medium-term. We are unable to suggest affordable and implementable alternatives for the short-to-medium term on the basis of our research. An untargeted grant such as the Basic Income Grant (BIG) is unaffordable in the short- to medium-term. While a household grant would theoretically increase coverage of the poor, while remaining affordable, it is unclear how it will fare in the South African context. It is likely to have much higher administration costs than the SRD and will require years of planning and preparation before it is ready to implement.

We argue for keeping targeting processes for the SRD similar in the short to medium term, with some modifications. The means-testing could follow the same process as the SRD, in that the application process would collect some information on recipients that would then be checked against existing government databases and against bank account data. Its design would exclude those in education or training (in particular NSFAS-receiving students), retired individuals, government employees, and individuals receiving other government grants.[3] We argue that using the banking data has been demonstrated to provide a significant level of control and flexibility over the budget.

Individuals who are well above the means test threshold are likely to be discouraged from applying for the grant. There is administrative effort required to submit the applications which is not worthwhile if you are wealthy. There is also likely to be some social stigma attached to taking a grant you do not need.

4. Medium term proposal for targeting the grant and its projected impacts on poverty

We model four possible scenarios, for targeting the grant, and estimate the number of beneficiaries, the cost, the coverage, distribution, and the poverty impacts of the various options.

Simulating the Special COVID-19 SRD as closely as possible based on existing criteria according to the SRD programme rules, we find that 16 million people are

[3] This would not exclude individuals receiving the child support grant, foster care grant, or the care dependency grant, as these grants are designed to provide income for dependents, not guardians. Initially we would not be able to exclude students not receiving a NSFAS grant as a dataset for cross-checking tertiary education enrolment does not currently exist. The numbers of beneficiaries in this memo therefore include students unless they are receiving NSFAS grants or loans. It would also no longer exclude individuals registered for UIF as long as those individuals earned below the threshold, given that this incentivises informalisation.

theoretically eligible for the grant at an individual income threshold of R624 per month. These beneficiary numbers are very close to the numbers of applications that we were seeing prior to the lowering of the threshold and the new implementation process applied in April 2022.

However, we argue that the current means testing approach and in particular, the income threshold where anyone receiving inflows over R624 in a month is deemed ineligible, is unnecessarily strict. It is likely to be excluding people from the grant who would be considered to be in food poverty by many definitions, and who would benefit from income support to be able to search for work. In our survey data, we fairly precisely observe both an aggregate measure of transfers to an individual's bank account, currently used to target the grant, as well as an aggregate measure of actual earnings. We outline how using the banking data with a very low threshold to target may exclude very poor people who i) receive intrahousehold transfers from very poor family members, ii) receive irregular remittances or loans or iii) receive once-off irregular income but are not regularly employed.

We propose three immediate methods to increase the potential impacts of the grant while a) keeping the cost within a fiscally feasible range and b) ensuring that the number of beneficiaries can be varied if needed depending on the fiscal situation.

1) **Increasing the current threshold from R624 to R1335 per month.** Our simulations show this would readjust the number of beneficiaries upward to roughly the same as previous levels before an income threshold was being systematically applied (from 6.6 million to 12.2 million), increasing costs from R28 to R51 billion, annually (the "Double" scenario in Figure 2).
    a) This would provide a quick and feasible way of increasing the impact of the grant and reducing errors of exclusion while remaining within an affordable budget.
    b) The threshold could be gradually raised in the future if more revenue is found. If absolutely necessary for fiscal reasons, the threshold could also be lowered, ensuring the grant remains fiscally sustainable.
    c) South Africa's existing social grants such as the child support grant and the old age pension are internationally notable for the remarkably low rates of exclusion error, mostly due to the high thresholds. They are considered unique in that they target and exclude the most affluent, rather than targeting the poor.
2) **Using an average measure of inflows into the bank account over a longer term, such as 3 to 6 months, to calculate an individual's income.** This method, used in Bolsa Familia in Brazil, prevents individuals who receive an unusually-high income inflow at a moment in time, but nonetheless remain

poor over time, from being excluded. This is difficult to model given data constraints, and we proxy an average income-measure using the consumption welfare aggregate.[4] Our simulations show that this would reduce the numbers of beneficiaries slightly relative to the main scenario at the R624 threshold (from 6.6 to 6.4 million), and increase the number of beneficiaries slightly at the R1 335 threshold (from 12.2 to 12.3 million) (the "Smooth" scenario in Figure 2).

3) **Removing UIF registration as a criterion for excluding grant recipients.** We apply this to the double-means-test scenario with a smooth income measure. Our simulations show that this increases the numbers of beneficiaries slightly relative to the smooth income scenario at all thresholds, with the differences increasing as the ceiling gets higher (the "No UIF" scenario in Figure 2).

In the longer term, increasing the current threshold from R624 to R3731 per month, and changing the targeting mechanism to match the Child Support Grant (CSG) and Old Age Pension (OAP) grants may be preferable. This mechanism discerns between single and married recipients and measures combined income (self-reported) for the latter. The CSG and OAP are widely regarded some of the most effectively targeted grants in the world, and this success is attributed to the fact that the threshold is so high, that the affluent mostly self-select out of the grant. We don't model the CSG / OAP mechanism here, mainly because of the difficulties of linking individuals to spouses, however we show results for all scenarios at the R3731 per month threshold.

Projected impacts on poverty

We select two preferred scenarios for estimating the short-term impact of the various SRD scenarios on poverty reduction. These are: i) a double-means-tested grant with a smooth income measure and no UIF criterion at the UBPL ceiling or above, and ii) a grant designed to encourage individuals to self-excluded with a ceiling at the FPL or above.

- We predict that the costs of such a grant, if set at R350 per month with a threshold at R1 335 per month (equivalent to the upper bound poverty line or "UBPL"), would range between R51 and R54 billion.
- The grant would support 12-13 million individuals directly, and 29 and 32 million individuals indirectly through co-residence in a household with a member receiving the grant.

[4] A household will tend to save more during times of unusually high income, and borrow more during times of unusually low income, in order that consumption can remain relatively more stable (D'Alessio & Iezzi, 2013; Katona, 1949).

- It would reduce the extreme poverty headcount[5] by 7.4 percentage points (4.4 million individuals), and the upper bound poverty headcount[6] by 2-3 percentage points (1.2-1.8 million individuals).
- As a point of reference, the entire existing social grant system (the combination of the child support grant, old age pension, care dependency grant, foster care grant, and the disability grant) is estimated to reduce the extreme poverty headcount by 15.7 percentage points (from 40.5 to 24.7 percent) and the UBPL poverty headcount by 6.4 percentage points (from 58.6 to 52.3 percent).[7]

5. Improving targeting in the long term

Concerns with this design that need to be addressed with further research and policy design

We suggest retaining the current means-testing approach in the short-term, but that a new approach is required for the medium-term. The existing approach provides adverse incentives. First, it discourages potential recipients from using the banking system to receive income and encourages reverting to use of cash. Second, continued disqualification from the grant for UIF recipients may discourage individuals taking formal jobs, especially if individuals continue to be classified as UIF recipients for a long time after UIF eligibility has expired (due to poor record keeping by companies and irregular updating of the UIF database).

1. It would be damaging to low-income individuals to remove the SRD while any new grant infrastructure is being developed. Piloting of new programmes should occur while the SRD is in place.

2. It should be possible to improve the targeting of the SRD and reduce exclusion errors with some modifications to how the grant is designed.

3. There are inherent and difficult to overcome issues in targeting grants based on household income. In other countries outside Brazil, these have proved to be among the most inaccurate programmes.

    a. The efficiency gains of the Family Grant assume that grant eligibility and grant amounts are set based household's most recent monthly income, as observed in survey data. However, it is close to impossible to measure income so regularly. The further away in time one gets

[5] The extreme poverty headcount is measured by the proportion of the population which has an average household income below the Food Poverty Line of R624 per month.
[6] The upper bound poverty headcount is measured by the proportion of the population which has an average household income below the Upper Bound Poverty Line of R1335 per month.
[7] Authors' estimates based on the LCS 2014/15 updated to 2021 using the QLFS 2015, 2021.

from the original measurement of income done face-to-face with households, the more inaccurate the income data becomes.

b. To achieve good targeting while using self-reported income, it is very likely the programme would also need to verify data against UIF and tax data, like the SRD. Using a household grant does not get around the issues that have arisen in targeting the SRD using these data sets, as those data sets will still need to be used to ensure accuracy of targeting.[8]

4. It is likely to take time, extensive funding, and very strong local capacity to set up a household targeting system. Without these, there may be considerable targeting errors. Given likely extensive delays, it is unclear why there is benefit to setting up a new system for potentially little improvement in targeting accuracy over the SRD.

5. There are few clear theoretical reasons to prefer household to individual grants and some clear theoretical reasons to prefer individual to household grants. The fact that many countries run household grants is mainly because these predated systems for electronic enrolment and payment, which reduce costs of having more beneficiaries.

In the short term, the SRD and other cash grant payments serve as economic stimulus as well as poverty reduction, as long as they are targeted at poor households. They could be justified on these grounds even if they are not initially well targeted.

6. Maximising grant impact on unemployment

Redesigning the grant to encourage recipients to engage in labour market activity

We propose that the grant should be redesigned to have two objectives: poverty reduction and encouraging recipients to engage in labour market activity. We present international and South African evidence that the cash grant on its own is already enabling individuals to search for formal and informal jobs, even without any additional services or conditions. Evidence from South Africa suggests poor jobseekers face high job search costs for transport, data and printing and struggle to borrow and that cash grants enable them to pay for these costs. Evidence internationally suggests the grant may enable self-employment.

We argue that active labour market services could over time be offered to recipients of the grant. We argue that the grant should not be conditional on job

[8] The Bolsa Familia relies heavily on checks against the equivalent data in Brazil and this is part of the reason that it has accurate targeting.

search: international evidence shows that such conditions are difficult, expensive to enforce and only moderately effective. Given the huge number of unemployed active searchers, we argue that many jobseekers are likely to take up services voluntarily.

The international evidence suggests many types of active labour market programmes are ineffective or expensive and only some have positive effects. We thus suggest any add-ons to the grant be rigorously evaluated and phased in over time. A phased approach could like the following:

- **Phase 1:** "label" the grant as a jobseeker grant (which evidence suggests might encourage its use for job search); encourage eligible jobseekers to sign up for the already-available job search platform SAyouth.mobi and any other free resources available to workseekers; and enable recipients to register contact details on a centralised database (this could be held by SASSA, newly created, or linked in some way to other databases such as SAyouth.mobi or the ESSA database of jobseekers held by labour centres). Contact details could be used to SMS work opportunities (e.g. the DBE assistant programme or other public works) or information about existing government services (e.g. support for small businesses).
- **Phase 2:** provide access to less expensive, online services that have already been tested in the South African context, such as action plan templates to help workseekers plan their job search, certification of workseekers' workplace-relevant basic skills or encouragements to get reference letters. These could be through SAyouth.mobi or developing another such platform. These should, like SAyouth.mobi, be provided without data cost.
- **Phase 3:** provide other less expensive, online services that are newly developed and tested.
- **Phase 4:** face-to-face services are provided (if found to be effective).

1 Cash grants as both poverty reduction and employment stimulus: international and local evidence

In this section we argue that it is important to implement a more permanent version of the Special COVID-19 SRD because it will support unemployment reduction through increases in job search and economic activity and have a large impact on poverty reduction. This section is a summary of a previous literature review.[ii] Detailed citations to individual studies can be found in Appendix A1.

There is strong evidence from multiple developing countries that cash grant programmes do not discourage working, hours of work or job search.[iii] These findings apply for small conditional and unconditional grants and for basic income interventions, although there is only one study of basic income in a developing country. In studies where there were conditions on grant programmes, these conditions did not require job search or employment: they were applied to how grants were spent (e.g., on children's education).

1.1 Facilitating job search

Cash grants can increase job search. There is evidence that jobseekers face search costs that prevent them finding work [iv]. Cash transfers have been found to finance an increase in job search or labour force participation, even if they go to another adult in the household. Increases in job search sometimes, but not always, lead to increases in employment. Cash grants also enable households to take riskier economic decisions with potentially high returns (e.g., migration[v]).

Empirical evidence from South Africa shows that existing cash grants promote job search, possibly by financing search costs. Not all studies find that grant receipt increases employment (see *Table A2.2*). This may be because unemployment is a structural problem of a mismatch between the (excess) demand for skilled labour and the (excess) supply of unskilled labour that will not be solved purely by promoting job search activity. However, transfers can complement any demand-side measures to increase employment, such as wage subsidies or public works programmes, by enabling individuals to search for those opportunities.

South African social protection schemes can and do encourage increased labour market activity. A review of the evidence from all ten studies of the labour market effects of the South African grants finds no good evidence that social transfers discourage labour market activity and some evidence that **social transfers may encourage labour market activity, particularly for young, unmarried women and women who live in poorer households** (see *Table A2.2*). One study that directly examines the labour market effects of the SRD grant finds that the transfer

increased the probability that a recipient is active in the labour market by 25 percentage points. [vi]

Transport subsidies can increase short term job search, although this does not always lead to increases in employment rates. Some interventions that have been tested are transport subsidies that specifically require jobseekers to travel to look for work to receive the benefits.

- One study in Addis Ababa found giving small subsidies for transport costs increased job search and employment rates after 3 months, largely by increasing employment in short-term, unskilled work.[vii] However, four years after subsidies had ended, the effect did not persist, suggesting the transport subsidies on their own did not enable jobseekers to move into more stable long-term employment.[viii]
- Offering money equivalent to the cost of a bus ticket to the city to rural residents in Bangladesh increased migration, employment rates, earnings, and household consumption by 30–35% during the hungry season after this subsidy is offered.[ix]
- One study in Johannesburg testing transport subsidies for jobseekers from Soweto finds these increased job search. However, they had no effect on jobseekers' employment rate.[x] The study also compared public transport vouchers to an unconditional cash allowance that recipients were encouraged to spend on job search. Recipients of the cash spent over 70% of the allowance on transport.

There is evidence from the child support grant in South Africa that cash transfers may be used to finance an increase in job search. One study finds the child support grant increases job search, especially among single mothers.[xi] Five years after grant receipt has ceased, the transfer is linked to reduced probability of working in the agricultural sector among single mothers. Another study finds that labour force participation increased among mothers who received the child support grant by 9% while mothers' employment increased by 15%.[xii] A third study estimates that the child support grant is associated with an increase in mothers' broadly defined labour force participation of between 7 and 14 percent (more than 8 percentage points), with a stronger effect for mothers living in informal housing.[xiii]

There is mixed evidence from the child support grant in South Africa that this increased job search translates into improved employment outcomes. Studies using different statistical methods and evaluating different time frames and subgroups find different results. One study finds that mothers who become exposed to the grant in their youth experience an increased employment, another finds that five years after receiving the grant for one year, mothers who received the grant are no more likely to be employed than comparable mothers who have not.[xiv] A third study

finds some weak evidence of employment increasing for mothers who receive grants, with increases in employment among women living in informal dwellings and decreases in employment among women living in formal dwellings.[xv]

1.2 Barriers to job search in the South African context

Job search costs are high in South Africa. Data from NIDS, a sample of 7,000 young jobseekers in Johannesburg[xvi], and a recent sample of Johannesburg jobseekers suggest that people spend between R127 and R242 per week on job search activities, a monthly cost that exceeds the value of the current SRD grant.[xvii] **Job search thus requires some disposable income.** Not having any income prevents some individuals who might otherwise search from searching for work.

High search costs reflect the high transport costs from low-income neighbourhoods to business centres, the high cost of data in South Africa, and the sheer amount of search required when unemployment rates are high and there are many applicants for jobs. The cost of the components of search activity are summarised in Table 2 below. In another sample, there are low rates of success for applications, meaning many applications need to be submitted to find employment: jobseekers in Johannesburg submitted an average of 13 job applications a month but only 1.5% of applications led to job offers. [xviii]

Table 1: Breakdown of reported job search expenditures for urban jobseekers in South Africa

	Amount spent in the last 7 days					
Item	10th pct	25th pct	median	mean	75th pct	90th pct
Airtime and Data	10	29	50	82,5	100	200
Transport	0	0	28	57,34	96	180
Transport (NIDS)	0	0	0	127	100	250
Internet cafes	0	0	15	22,91	30	57
Clothes for interviews	0	0	0	17,59	0	0
Other	0	0	0	6,54	0	0
Total	19	50	120	189,9	235	400

Source: 243 jobseekers in Johannesburg 2022 and NIDS 2017
Note: Pct refers to percentile

Increased job search can promote increased employment if job search strategies are initially sub-optimal. Among the three studies that examine the effect of encouraging job search in a South African context, two find that employment is increased and the third finds that increased search promotes more accurate beliefs

about the job market.[xix] In one of these studies, jobseekers are encouraged to make detailed plans of how they intend to search for work, and guided towards employing search strategies that are more likely to result in employment.[xx] All three studies only examine the effect of providing search encouragement to already active jobseekers.[xxi] People who are not currently searching for work may be less skilled or less suited to the available positions in the labour market. Consequently, employment rates may not be increased if currently inactive people were encouraged to begin to search for work. Additionally, encouraging job search cannot address issues with the demand that firms have for employment. Job search encouragement should therefore be paired with initiatives to stimulate hiring demand and support new jobseekers in effective search.

1.3 Facilitating economic activity

This section is a summary of a previous literature review.[xxii] Detailed citations to individual studies can be found in Appendix A1.

Cash grants may enable people to start businesses. There is some evidence that cash transfers increase revenues or profits from existing enterprises. Households often start working more in such businesses. Grants may also help some households to start new non-farm enterprises, although such increases do not occur in all studies. There is stronger evidence that lump-sum transfers or basic income increase enterprise formation, revenue, profits and productive assets than for small government transfers. Receiving transfers prevented people from closing existing businesses during recent lockdowns.

Cash grants can lead to higher yields for agricultural households. Cash grant recipients produce more agricultural output, partly because they are more likely to purchase agricultural inputs like seed and fertiliser and agricultural tools. They also own more livestock and sometimes purchase livestock for the first time. Livestock likely offers greater food security and acts as a store of value. These effects may be less prevalent in the South African context, where fewer households engage in small-scale agriculture. However, they may still apply to the small portion of households who do subsistence agriculture.

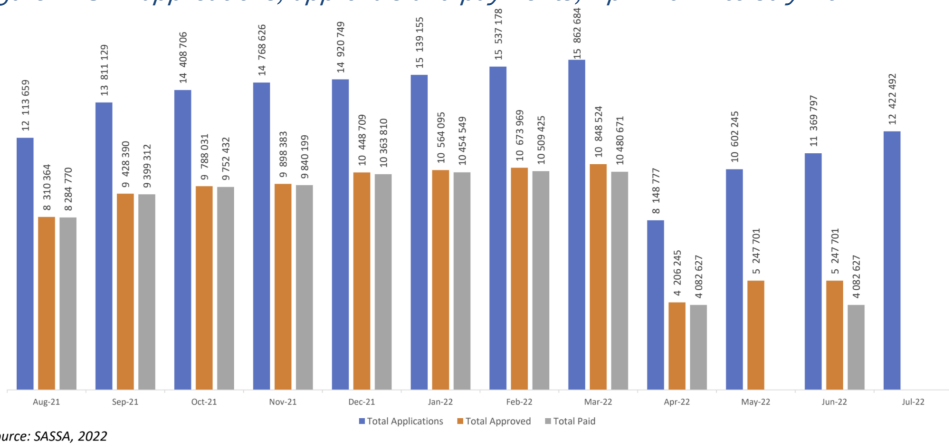
2 Proposal for a jobseekers' grant

2.1 The evolution of the Social Relief of Distress (SRD) grant

The South African Department of Social Development introduced the Special COVID-19 SRD of R350 per month in May 2021 to counter the negative effect of the pandemic. The shock to the South African economy had caused the unemployment rate to skyrocket and resulted in a substantial increase in the depth and breadth of poverty.

The SRD grant initially explicitly targeted those with zero income and unemployed status, but in reality mostly targeted informally- and un-employed individuals. Individuals were required to make a declaration of unemployment which was then cross-checked with other databases including the Unemployment Insurance Fund.[9] A means test of ZAR585 per month (the 2020 FPL) was only applied to individuals who appealed their grant denial.[xxiii] Initially the grant excluded individuals receiving caregiver grants (the foster care grant, child support grant, or care dependency grant), but this criterion was challenged and removed from August 2021 (Zulu 2021). In March 2022, close to 11 million people were receiving the grant (See Figure 1).[xxiv] The means test was rarely applied.

Figure 1: SRD applications, approvals and payments, April 2021 to July 2022



Source: SASSA, 2022

The application of a strict means test using banking data, which does not discern between types of income, has seen the number of approved individuals drop from 11 million to 6 million. In April 2022, the grant implementation process changed, with all grant applications cross-checked against data on income from the major banks. All those with inflows of money larger than a ceiling of R350 per month were

[9] Many of the problems with these initial checks are written up in Goldman et al. (2021).

rejected, and the numbers of recipients dropped to around 4 million. New regulations were promulgated in July 2022 and in August 2022 the ceiling was raised back up to the level of the Food Poverty Line - now at R624 per month in 2021 prices. The number of recipients readjusted partially to roughly 5 million people (just under a third of the 15 million people living under the food poverty line). The strict nature of the bank test has resulted in the large majority of exclusions. Roughly 6 million applications were declined in May and June, when the bank test was applied.

2.2 Benefits of some type of income ceiling

The use of grant applicant banking data to facilitate means testing of incomes has demonstrated a valuable lever of control over grant expenditure. This section highlights that the means test can ensure the grant programme is affordable and flexible to economic circumstances. However, in the following section, we will highlight some very serious concerns with the current means test. We will then consider potential improvements to deal with these issues, such as using a different income ceiling and using the bank data in different ways.

2.3 Affordability

In principle, it is likely to be useful to apply some type of income ceiling to the grant, to target it at those most in need. An untargeted grant is equivalent to a Basic Income Grant (BIG). Although we have modelled this elsewhere, we do not consider this further in this paper. It is clear that in the short to medium term, **funding a BIG would require the introduction of new tax instruments or increases in debt.** The annual cost of a UBIG of R350 per month is R143.7 billion for 34.2 million direct beneficiaries of working-age (Goldman and Woolard, forthcoming). It may be possible to claw back R50 billion (roughly 30 percent of the cost) from taxpayers by increasing the Personal Income Tax threshold but the clawback alone is not sufficient to cover the funding gap. This leaves a cost of just under R100 billion.

It is unlikely to be possible to fund this in the short to medium term. It is unlikely to be possible to take on this amount in debt given Treasury's objective of reducing the size of the debt. Introducing new tax revenue instruments would take time and is risky. Possibilities for increasing tax revenue in the medium term include increases to the Personal Income Tax (PIT) and value-added tax (VAT) rates, removal of medical tax credits, or the implementation of a wealth tax. Little is known at this stage about the behavioural response to these policy changes which may include crowding out of investment and increases in unemployment and there is no guarantee that the expected revenues would materialise in reality to the extent that is required.

2.4 Flexibility

Banking data can be used to change eligibility thresholds in response to fiscal or other conditions. If there is a fiscal crisis, it is possible to reduce the threshold to enrol the fiscally sustainable number of recipients while targeting grants to those most in need. For example, in April 2022, implementing the "double testing" rule resulted in a sharp decrease in the number of grants paid. In our view, this targeting excluded a number of very poor beneficiaries who would have been assessed as below the food poverty line on many metrics, even if they did not meet the precise threshold. However, it demonstrates that SASSA is able to reduce the number of beneficiaries if this is required for fiscal reasons.

In contrast, if there is increased economic prosperity, or there is an economic crisis where more support is required, the threshold can be raised to increase the number of individuals included in the transfer scheme. Other countries have successfully controlled the number of grant recipients using data from applicants to adjust the eligibility thresholds while monitoring the cost implications of these changes. During the COVID-19 pandemic, Brazil, Argentina, Indonesia and Jordan (see Appendix 2: Table A2.1) temporarily expanded the eligibility conditions for social transfers and adjusted the conditions of the transfers over time.[xxv] For example, in Brazil, the government used income data from those who were means tested for Bolsa Familia but outside of pandemic circumstances were defined as too rich to get the grant. Brazil gave them an emergency transfer, the *Auxilio Emergencial* transfer. In other words, government raised the income ceiling required to get an emergency grant.

2.5 The current means test and its implications

In this section **we explain why, theoretically, the current means test is likely to exclude many poor individuals.** The combination of the type of means test being used and the very low-income ceiling of R624 (above which an individual is excluded from the SRD) mean that a large number of people with income below the food poverty line are likely to be excluded from the SRD. This is an unintended consequence of heavily prioritising the exclusion of wealthier individuals who do not have regular income but are not in need of social assistance.

2.6 Different ways SASSA measures individual income

For the current SRD, the main measure of income is *individuals' income verified against their bank account data*. Any inflow into an individual's account is counted as income. Individuals with inflows above a ceiling of R624 are deemed ineligible. There is no differentiation between different sources of income. Income includes individual earnings (e.g. coming from an employer) and household transfers and loans (e.g. coming from a spouse or other family member) in all cases where these intra-household flows or loans go through the banking system. SASSA sends identity

numbers to the banks and receives back a simple yes/no answer for whether income is above the threshold. SASSA also asks individuals to declare their income and this could also be used to exclude their application, but the majority of applications are rejected because they fail the bank means test not because of self-declared income.[10] This measure is a less accurate measure of an individual's per capita household income, for reasons outlined below. However, individuals cannot misreport income as it is captured in their banking data.

In contrast, for other SASSA grants such as the Child Support Grant, the main measure of income is what individuals to declare as their household income. Individuals with income above a ceiling are not eligible. The grant application form contains a section describing the type of income that the applicant, their spouse and their dependent child receive, any income they've donated, and any permissible deductions incurred. Proof of income or affidavit is required but income cannot be verified by SASSA. This measure is a more accurate measure of an individual's per capita household income. However, individuals can misreport income.

Table 2: Types of means tests applied by SASSA

Description	CSG	SRD
Measure of income	Household income, adjusted to number of people in the household	Inflows into an individual's bank account
Threshold or cut-off, above which individuals are not eligible for the grant	R4600 / month for single caregivers R9200 / month (R4600 per spouse) for married caregivers	R624 / month

2.7 How food poverty is usually measured

Economists usually measure an individual's income as their *per capita household income* (household income divided by the number of people in the household). This is because households commonly share income between members.

A household would be considered poor if, when the household pools its different sources of income, the household cannot buy enough food and basic goods for all

[10] For example in June 2022, 65% of rejections occurred due to the bank means test, 25% due to an individual's response, 8% because individuals were registered on UIF and the remainder for all other reasons (NSFAS registered 0.1%, failed ID verification 0.4%, on government payroll or pension 0.23%, in a government facility 0.01%, receiving SASSA grant 0.45%, debtor 0.55%, age outside range 0.28%). 11369797 individuals applied and 5247701 were approved. Source: SASSA 2022

members to meet basic survival needs. This is measured using a "food poverty line". A food poverty line is the cost of all goods and services considered essential to meet a person´s survival and consumption needs. A household with per capita income below the food poverty line is in food poverty.

2.8 Concerns with using the current means test and ceiling for the SRD

We are unclear how the current means test and ceiling for the SRD were decided. They may have been intended to make any individuals who were receiving income above the food poverty line ineligible for the SRD, on the grounds that they were not in food poverty. It is likely that the means test is achieving this goal. However, it is likely that this means test is excluding many individuals who are in food poverty, but who happen to fail the bank means test.

First, individuals receiving money from other household members into their bank account may be excluded by the means test, even if they and their household have per capita household income below the cut-off. SASSA are not able to discern between types of income inflows. They may therefore measure earnings in one household member's bank account and then, if some of those earnings are transferred to a family member's account, they are measured again. We call this "double counting of intrahousehold transfers" given that it may often be measuring individual and per capita income simultaneously. In the rest of the paper we refer to this as the "current scenario".

The DSD were intentionally intending to exclude individuals that might be receiving support from a family member that brought them above the ceiling.[xxvi] This process is intended to ensure individuals at the upper-end of the distribution, living in wealthy households, are excluded. It likely does this quite successfully. However, because the income eligibility ceiling is extremely low, at R624 per month, this process is also unfairly excluding quite poor individuals.

Box: Example of differences in eligibility for the SRD depending on the data used

Imagine Thabo receives R800 in monthly income, and Nosizwe, his spouse, earns R300 in monthly income. They have total household income of R1100 and household per capita income of R550. The food poverty line, the threshold used for the SRD, is R624 per month in 2021 prices, so their per capita household income falls below this line. They are in food poverty.

Under a per capita income measure, both Thabo and Nosizwe would receive the SRD. Under a pure individual income measure, Nosizwe would receive the SRD. In reality, however, we do observe per capita household income, as banks cannot currently link individuals who are married to each other.

There are situations where neither of them would qualify for the SRD grant in the bank means test, depending on whether they transfer money between their bank accounts. For example: if Thabo receives R800 in income, and transfers R400 to Nosizwe, his spouse, who earns R300, Thabo will be rejected from the SRD because R800 > R624. Nosizwe will also be rejected from the SRD because her bank account will show inflows of R300 (her income) + the transfer from Thabo (R400) = R700. This makes the test particularly exclusionary. Implementing a similar double-means-test to the best of our abilities dramatically reduces the number of eligible individuals from 16 million to 6.6 million (Figure 2).

Second, people who have a low average monthly income over a long period, but have a once off spike in income in the month when the bank means test is done, will be excluded from the SRD. This problem was picked up in Brazil's Bolsa Familia. Analysis showed that the poorest families may go over a low-income threshold in certain months, but are rarely able to sustain this level of income over multiple months.[xxvii, xxviii]

Box: Example of differences in eligibility for the SRD due to short term spikes in income

For example, Dale earns R200 per month from June to September, but in October when the bank means test is done, he earns R700. Over this period he earns R1500, way below the food poverty line of R624 x 5 = R3120. Using an average measure of his income, he should be eligible for the SRD. Using the bank means test in October, he is not eligible for the SRD.

2.9 Proposals for changes to the current SRD

We propose five design improvements to improve the existing grant in the immediate future and in the medium term.

Table 3: Problems and solutions for the existing SRD

Immediate proposals	
Problem	Proposal
1. Poor recipients are unfairly excluded because of double-counting of income that is transferred between family members.	Increase the eligibility ceiling to R1 335 per month (the level of the upper bound poverty line, the UBPL). This will reduce the possibility of excluding individuals with income near the food poverty line, because fewer people will be excluded with income between R624 and R1335.
2. Lumpy inflows of income into bank accounts will result in poor recipients being excluded from the grant.	Measure income in the banking data as an average over a 3- to 6-month period.
3. Currently individuals receiving UIF payments are excluded from the SRD. This can discourage registration for UIF.[11] In addition, UIF data is updated infrequently and often inaccurately, so people can be excluded from the SRD even though they aren't receiving UIF. [12]	Remove the UIF criterion.
Medium-term proposals	
Problem	Proposal
1. Continuing to use banking data to measure income will discourage people from the banking system.	Use self-reported income in the place of banking data, at a higher eligibility ceiling, combined with incentives to accurately report e.g. audits, and clear information about the grant to encourage individuals with higher income to self-exclude.

[11] In simple terms, the UIF criterion incentivizes people to stay off the government database.
[12] For example, a former UIF beneficiary might be excluded because of the lag it takes to update the data.

2. While job search is costly, lack of money is not the only barrier preventing people finding work or generating income.	Maximise the grant's capacity to support with job search by labelling the grant as a jobseeker grant, and pair it with mechanisms to support job search such as registration on a centralised database, while not placing conditions on grant receipts.

3 Projections of the impacts of our proposal

To evaluate how effectively our proposal addresses the issues outlined above, we develop a model of South Africa's current economic environment use the model to simulate the scenarios that correspond to our proposals for modifying the grant. **We model four possible scenarios and estimate the number of beneficiaries, the cost, the coverage, distribution, and the poverty impacts of the various options.** The scenarios are as follows:

1. The first scenario simulates an **individual means-test mechanism ("indv")** which is designed to correspond to the means-testing mechanism of the pre-April 2022 version of the SRD but without taking exclusion errors and self-exclusion into account i.e. assuming everyone who is eligible applies and receives the grant;
2. The second scenario we believe fairly accurately simulates **the existing "double counting" scenario ("double")** described in The evolution of the Social Relief of Distress (SRD) grant, by simultaneously implementing both an individual and a household ceiling at the same level and disqualifying people who receive short term spikes in income;
3. The third scenario simulates the "double-means-test" scenario and extends this scenario by measuring consumption expenditure instead of income to proxy a **smooth measure of income ("smooth")**;[13]
4. The fourth scenario is the same as the third scenario except that the **UIF criterion – which excluded individuals registered for UIF – is removed**. In other words, this scenario also includes people who are receiving the UIF and/or working in a business that makes contributions to the UIF fund.
5. The fifth scenario simulates a **self-exclusion scenario ("self-excl")**, in which the grant is designed with an individual means-testing mechanism, combined with a number of elements designed so as to discourage those in the upper deciles from applying. These design mechanisms are discussed in greater detail in sections on flexibility and control and improving targeting in the long term. Mechanisms include self-targeting methods and labelling the grant to communicate its purpose. For modelling purposes, in this scenario, we assume that the incentives result in 100 percent take-up in deciles 1-3, 80

[13] The idea is that households or individuals who receive irregular income shocks know that income is irregular and "smooth" expenditure over time. For example, Dale earns R200 per month from June to September, but in October, he earns R700, and then he earns R200 per month again. He will likely not spend all R700 in October as he knows he is unlikely to receive such large income again. See Deaton, A. 1992. Understanding Consumption. Oxford UK: Oxford University Press.

percent take-up in deciles 4-5, 60 percent take-up in deciles 6-7, and zero take-up in deciles 8-10.

We model each scenario for a number of eligibility ceilings based on relevant national reference points for poverty-reduction and wage income. These ceilings are the Food Poverty Line (FPL) at R624 per month, the Lower-bound Poverty Line (LBPL) of R890 per month, the UBPL of R1,335 per month and the National Minimum Wage (NMW) of R3,722 per month. While it is less relevant as a point of reference for a grant aimed at poverty and unemployment reduction, we also show the Child Support Grant (CSG) ceiling in the table, to demonstrate how much larger it is in comparison to the existing SRD ceiling at R4,600 per month.

Table 2: Modelled SRD ceilings and their values

Ceiling	Monthly ceiling
1. Food poverty line	R624
2. Lower-bound poverty line	R890
3. Upper-bound poverty line	R1,335
4. National minimum wage	R3722
Reference point	**Monthly ceiling**
Child support grant	R4600 for single caregivers R9200 for married caregivers

The estimates generated here are based on nationally representative income and expenditure household survey data. We update the Living Conditions Survey 2014/15 to 2021 using a combination of population and demographic reweighting, income and consumption nowcasting, and we introduce unemployment shocks based on the changes in the Quarterly Labour Force Survey from 2015 to 2021.[14] [xxix]

3.1 Summary of estimated costs and poverty impacts of different changes

In table 4 we summarise the estimated cost and poverty impacts of implementing our proposed modifications. The detailed projections of every scenario we model are presented in the section on cost and poverty impacts that follows. All of the figures represent our best estimates of the likely impact of the grant, however, they assume we have accurately modelled the South African economy and that the implementation of each of the scenarios follows our assumptions of behaviour.

[14] See Data Appendix 2: Updating LCS 2014/15 to 2021 for more information on the process of updating the dataset.

These projections suggest that neither increasing the income ceiling nor removing the UIF would in an explosion in the number of eligible grant beneficiaries. Rather, the number of beneficiaries, and the corresponding cost of the grant remain fiscally reasonable, with reduced unfair exclusions of people in poverty. **We expect that we are currently in a scenario where we are providing the grant to roughly 6.6 million individuals and covering about 21 percent of the poor.** By raising the eligibility ceiling to R1335 per month in the short-term, we would almost double our coverage of the poor, to roughly 40 percent. We estimate the cost of this option at R51.4 billion.

Table 44: Estimated effects of our proposals

Immediate proposals	
Proposal	Projected cost and poverty impact
Increase the eligibility ceiling to R1 335 per month (the level of the upper bound poverty line, the UBPL). This will reduce the possibility of excluding individuals with income near the food poverty line, because fewer people will be excluded with income between R624 and R1335.	• Increase number of beneficiaries from 6.6 million to 12.2 million. • Increase coverage of the upper bound poverty line poor from 21.3 percent to 39.5 percent. • Increase cost from R27.8 billion to R51.4 billion • Reduce food poverty by 7.4 percentage points (current grant reduces food poverty by 6.8 percentage points) • Reduce upper bound poverty by 3.5 percentage points (current grant reduces upper bound poverty by 3 percentage points)
Measure income in the banking data as an average over a 3- to 6-month period.	Depends on the eligibility ceiling. All projections here assume eligibility is increased to R1335 per month and compares single month to six month income measure. See the cost and poverty impacts section for details. • Increase number of beneficiaries from 12.2 to 12.3 million • No change in coverage of upper bound poverty line poor (39.5 percent) • Increase cost from R51.4 billion to R51.5 billion • Reduce food poverty by 7.2 percentage points (current at R1335 ceiling reduces food poverty by 7.4 percentage points) • Reduce upper bound poverty by 3.5 percentage points (same as current at R1335 ceiling)

Remove the UIF criterion.	Depends on the eligibility ceiling. All projections here assume eligibility is increased to R1335 per month and assume six month income measure is adopted and compares this scenario to the same scenario but without the UIF criterion. See the cost and poverty impacts for details. • Increase number of beneficiaries from 21.3 million to 13.1 million • Increase coverage of the upper poverty line poor from 39.5 percent to 42.1 percent • Increase cost from R51.5 billion to R54.9 billion • Reduce food poverty by 7.6 percentage points (smooth at R1335 ceiling reduces food poverty by 7.2 percentage points) • Reduce upper bound poverty by 4.6 percentage points (smooth at R1335 ceiling reduces upper bound poverty by 3.5 percentage points)
Medium-term proposals	
Proposal	**Cost and poverty impact**
Use self-reported income in the place of banking data, at a higher eligibility ceiling, combined with incentives to accurately report e.g. audits, and clear information about the grant to encourage individuals with higher income to self-exclude.	Depends on the eligibility ceiling. All projections here assume eligibility is increased to R1335 per month and assume six month income measure is adopted and compares this scenario to adopting the self-targeting policy at the R1335 per month ceiling. • Increase number of beneficiaries from 12.8 million to 12.3 • Reduce coverage of the upper poverty line poor from 39.5 percent to 36.6 percent • Increase cost from R51.5 billion to R53.8 billion • Reduce food poverty by 7.4

	percentage points (smooth at R1335 ceiling reduces food poverty by 7.2 percentage points) • Reduce upper bound poverty by 2 percentage points (smooth at R1335 ceiling reduces upper bound poverty by 3.5 percentage points)
Maximise the grant's capacity to support with job search by labelling the grant as a jobseeker grant, and pair it with mechanisms to support job search such as registration on a centralised database, while not placing conditions on grant receipts.	This proposal should bolster the likelihood of the simulated long-term scenario by encouraging self-exclusion for the upper deciles.

In the long-term, the strict bank test risks discouraging the use of the banking system for those not in the formal sector. The means test is likely, therefore, to become gradually less effective for targeting the grant. We propose moving away from the banking means test in the long-term towards a grant design in which individuals self-report their income. This increases the number of beneficiaries to 11.9 or 12.8 million at the R624 or R1335 ceilings respectively. The estimated cost would be R49.9 billion or R53.8 billion.

An alternative option would be to raise the threshold to the level of the national minimum wage. At this level, most individuals would be receiving salaries through their bank accounts, and choosing not to use the banking system is no longer an option. This is probably the most effective option from a targeting point of view, however this would increase the cost of the grant substantially from R50 to R74 billion.

4 Costing and poverty impacts for our scenarios

4.1 Direct beneficiaries and coverage

In this section we report the details of the modelling and the projected number of beneficiaries receiving the grant for each of the modelled scenarios discussed above, as well as the projected proportion of the UBPL poor population covered by the grant.

4.2 Individual means-testing

We simulate the Special COVID-19 SRD as closely as possible based on existing criteria according to the SRD programme rules. We find that 16 million people are theoretically eligible for the grant at an individual income threshold of R624 per month (See "Indv" bar in Figure 2), not on the government payroll or public works, not receiving an existing grant (unless a caregiver grant), and not a formal-sector worker (Table 2).

These beneficiary numbers are very close to the numbers of applications that we were seeing prior to the lowering of the threshold and the new implementation process applied in April 2022. In March 2022 we saw close to 16 million applicants, with close to 11 million of those approved. Goldman et al. document that we could expect to see around 33 percent exclusion errors given the previous verification process, and so it is unsurprising that we see roughly 33 percent of applicants are not approved.[xxx] Furthermore, it is currently unclear whether the grant is reaching some in the most vulnerable groups, such as people living in rural areas, without smartphone access or without basic English literacy, who may not be applying.

The table below shows the population that have incomes below R624 per month; that are government employees; that are receiving an existing grant, and that are registered for UIF. It also shows the population, when we cumulatively apply these criteria to the SRD, for example the population that have income below 6254 per month, and are not government employees is 16.9 million, or 49.6 percent of the working-age population.

Table 5: working-age population

Description	Population (million)	% of total	Cum. pop. (million)	Cum. % of total
Working-age of which	34	100	34	100
Income below R624 per month	17.4	51.1	17.4	51.1
Government employee	2.3	6.8	16.9	49.6
Receiving an existing grant	2.3	6.8	16.5	48.4
Registered for UIF	10.3	30.3	16	47.1

Source: authors' estimates based on the LCS 2014/15 adjusted to 2021 using the QLFS 2015, 2021.

Note: the cumulative % of total column should be read as follows, for example: the proportion of working-age individuals that have income below R624 per month, and are not government employees is 49.6.

At the R624 ceiling, coverage is highest in this scenario with an estimated 37 percent of the poor population measured at the UBPL (Figure 2b). Coverage increases by only 2.9 percentage points with the increase from the R624 ceiling to the R1335 ceiling (0.90 million individuals), and by a further 2.7 percentage points with the increase to the R3 731 ceiling (0.84 million individuals).

The problem that is faced by the DSD in this scenario is that in applying the individual income criteria, a fairly large number of non-poor individuals (who have per capita household income above the UBPL threshold – see The evolution of the Social Relief of Distress (SRD) grant for an explanation) with individual income below the threshold technically qualify for the grant - although we do not know whether they would have applied for it.[15] Table 5 shows that only 41.3 percent of those eligible for the SRD at the Food Poverty Line (FPL) of R624 per month were actually the extreme poor (measured by per capita household income below the FPL), 71 percent were poor, and 8.1 percent of those in the richest 20 percent of the country were technically eligible for the grant. It seems fairly likely, however, that the majority of those in the richest 20 percent would have chosen to self-exclude.

Table 6: Proportion eligible for SRD which are poor, or in the upper deciles

Population group	Proportion eligible for SRD
FPL poor	41.3
UBPL poor	71.1
Decile 9 &	8.1

Source: authors' estimates based on LCS 2014/15, updated using the QLFS 2015 & 2021

4.3 Current scenario

Applying a combination of the individual and per capita means test "double-means-test" in the survey data reduces the number of beneficiaries from 16 to 6.6 million at an eligibility ceiling of R624 per month ("Current" scenario, Figure 2a, R624 ceiling). We expect this scenario to best approximate the existing situation. If we are to continue to implement the grant using the existing bank account test, raising the threshold to at least the UBPL of R1,335 per month will make a substantial difference to the number of poor recipients excluded from the grant. Increasing the threshold to the UBPL in the double-means-test scenario raises the number of beneficiaries to roughly 12.2 million, while increasing it to the National Minimum Wage (NMW) reaches 17.5 million beneficiaries.

At the R624 ceiling, coverage of the poor is low in this scenario, with 21.3 percent of the UBPL poor covered. However, this increases substantially (by 18.2 percentage points, or 5.7 million poor individuals) when we increase the threshold to R1 335, and increases by a further 2.7 percentage points (0.84 million individuals)

[15] Recall: per capita household income is the most common measure of poverty. It captures household income divided by the number of people in the household. This accounts for households sharing income within the household. Individual income in this data is income that would likely flow into their bank account. In the data we are able to pick up income from wages and salaries net of taxes and contributions, rental income, pensions and retirement annuities, non-caregiver grant income, alimony, shares and dividends, loans from friends or family, moneylenders, or student and educational loans.

when the ceiling is raised to R3 731. While it is clear that we need to make the SRD affordable at the national level, double-means-testing, at a low threshold such as the FPL threshold, is problematic, excluding almost 80 percent of the poor population. The question is: how can we retain the ability to exclude those who apply even if they are not poor, while simultaneously reducing the numbers of poor that are being unfairly excluded?

4.4 Measuring income over a (3- to) 6-month period

We recommend measuring an average of monthly income over a 3-6 month period. Monthly income in any one month is a poor proxy for underlying income. Low-income households see major fluctuations in income, and analysis has shown that while the poorest families may go over the self-reported income ceiling in certain months, they are rarely able to sustain this level of income.

Bolsa Familia is an example of a case where the adjustment from measuring income in any one month to measuring income over a period of 2 years has been implemented. Implementation was adjusted to evaluate eligibility less regularly and to continue to include households who usually fell below the ceiling even if they went above it in some months.[xxxi] In 2010 the administration began targeting households based on their average income over the preceding two-year period. Every two years household status is re-evaluated and eligibility is also regularly assessed against administrative data on employment from firms (similar to the UIF data used in the South African context, see Appendix 2). Households are only removed from the grant if a spike in income occurs which exceeds half of one minimum wage per capita.

The South African survey data suggests that working with a smoother measure of income results in a fairly small variation on the number of beneficiaries ("Income 6 mnths" scenario, Figure 2a). Given that consumption tends to vary less than income, we use consumption as a proxy for a measure of income averaged over several months - given that consumption tends to vary less than income. The smoother measure reduces the number of beneficiaries slightly at the R624 ceiling and the R890 ceiling from 6.6 to 6.4 and from 9.2 to 9.0, and increases them slightly at the R1,335 ceiling and the R3731 ceiling (from 12.2 to 12.3 and from 17.5 to 17.6).

Coverage of the poor either stays the same or reduces slightly with the smoother income measure. At the R624 ceiling it reduces from 21.3 to 20.7 percent, at the R1 335 ceiling it remains the same, while at the NMW ceiling it reduces from 42.2 to 42.0 percent of the poor (Figure 2b).

While the difference to the number of beneficiaries is small, it is a fairer way of determining eligibility, and the impact on those individuals who would otherwise be

unfairly excluded by a lumpy payment is large. Less frequent evaluations and changes to grant recipient status will support individuals to plan given the certainty of receiving the grant for the duration of the period, and may reduce the administrative burden for SASSA employees through reducing the frequency of checks and of appeals.

4.5 Dropped UIF criterion

We recommend, in the short term, removing the explicit check on whether applicants are receiving the UIF or operating a business using tax data ("Drop UIF criterion" scenario, Figure 2). However, we discuss in the next section how this data could be improved in the longer term if it were to be used in targeting again. The main reason for removing this criterion is that it rewards informalisation of the labour market. The second reason is that data inaccuracies with this data source has resulted in the exclusion of substantial numbers of eligible individuals. There is rapid 'churn' in the South African labour market, so people move in and out of employment often and we know that this is not well captured in current data, that firms often do not accurately report on changes, and there is a lag in IRP5 self-employment tax records as these are only available for the preceding tax year.[xxxii]

Dropping the UIF exclusion criterion increases the number of beneficiaries from 6.4 million (in the income averaged over 6 months scenario) to 6.6 million at the R624 per month ceiling. At the R1335 ceiling the number of beneficiaries increases from 12.3 to 13.1 and at the R3731 ceiling it increases from 17.6 to 20.8.

It also increases coverage of the UBPL poor slightly. Coverage increases from 20.7 to 21.2 percent at the R624 ceiling, from 39.5 to 42.1 percent at the R1335 ceiling and from 42.0 to 46.6 at the R3731 ceiling.

4.6 Long-term proposal

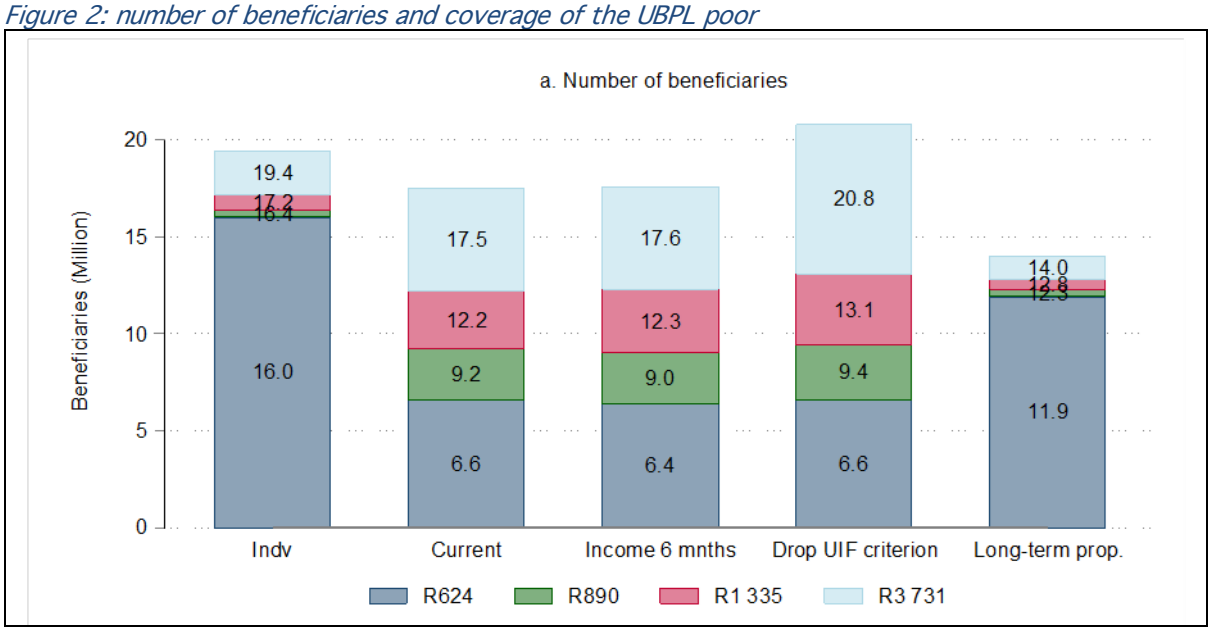
In the long-term we propose to incentivise self-exclusion of individuals in the upper deciles. The long-term proposal has a much higher number of beneficiaries at the R624 ceiling than the current scenario (11.9 million) because it does not apply a test based on banking data. It instead relies on incentives to accurate self-report income, and self-exclude if above the threshold, combined with cross-checks with other databases. It assumes that the grant includes greater numbers of non-extreme-poor individuals, as compliance is enforced less strictly, and instead incentivised. As a result, some individuals above the poverty line receive the grant, according to our assumptions. The benefit of this is that coverage of the poor is much greater.

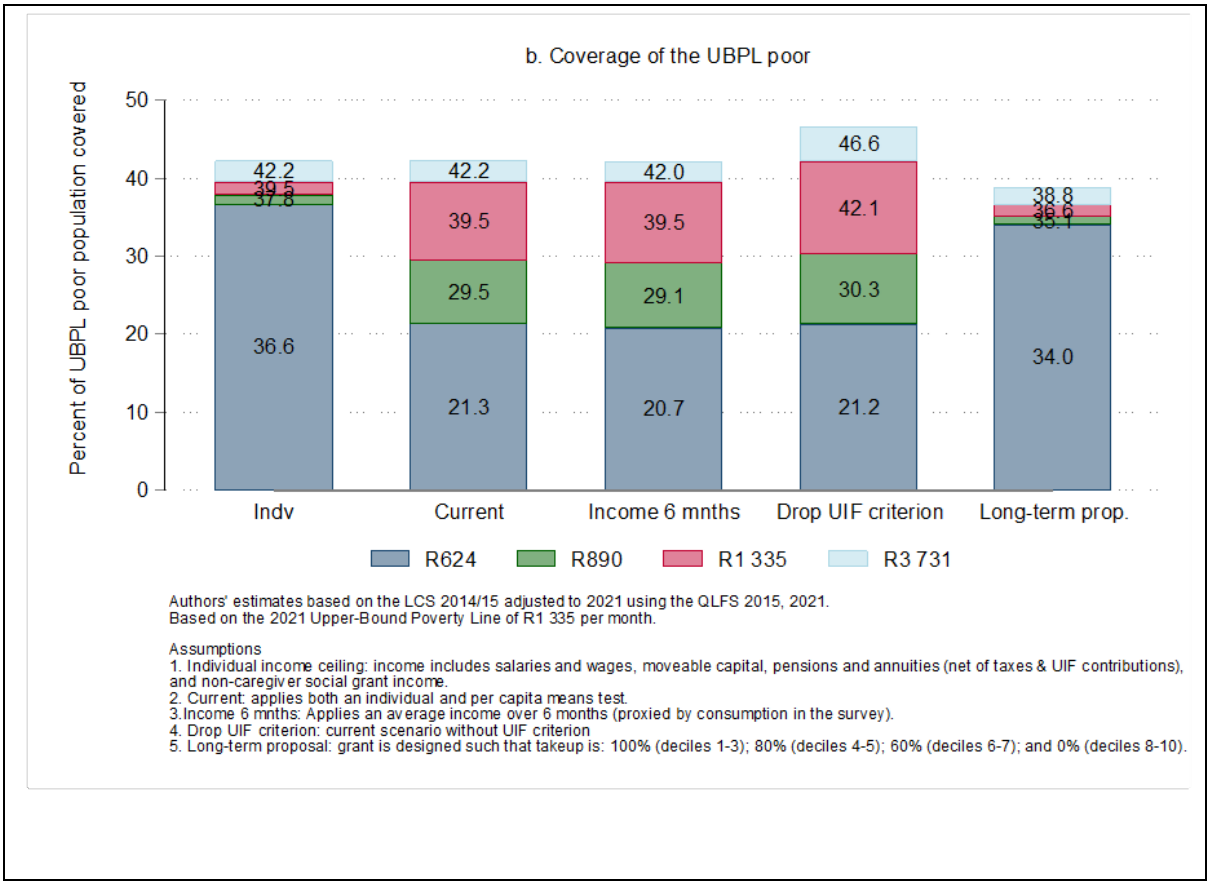
In this scenario, however, the number of beneficiaries grows more slowly, as the ceiling is raised, given the assumptions of tapering take-up in the upper deciles. At a

ceiling of R1,335 per month there are only 12.8 million beneficiaries (compared to 12.2 in the double-means-test scenario, and 17.2 in the individual-means-test scenario. At the threshold of R3 722 per month, the number of beneficiaries is only 14.0 million, - substantially lower than in the current scenario of 17.5 million. Increasing the threshold to the R1 335 or R3 722 ceilings in the long-term proposal, then, makes little difference to the numbers of beneficiaries, and should we attempt to implement this scenario, we would favour implementing one of these higher ceilings.

Coverage of the poor is higher in this scenario than in the current scenario at a R624 ceiling (Figure 2b). At a R1 335 or R3 722 ceilings, however, the current scenario has higher coverage (39.5 vs 36.4 percent at the R1 335 ceiling, and 42.2 vs. 38.7 percent using the R3 722 ceiling).

Figure 2: number of beneficiaries and coverage of the UBPL poor





4.7 Cost projections

Given that the size of the grant is the same in all the following scenarios, the number of beneficiaries directly determines the cost of the programme. The costs of each scenario, at each ceiling, are shown in Table 6 below.

At a ceiling of R624 per month, the cheapest scenarios are R27-28 billion for the current scenario, average income scenario and the dropped UIF criterion scenarios at a ceiling of R624 per month. The long-term proposal costs much more, at close to R50 billion at a ceiling of R624 per month, and of course the individual income test scenario costs the most.

At a ceiling of R1 335 per month, the scenario in which we drop the UIF criterion and the long-term proposal both cost around R54-55 billion, while the current scenario (with and without the average income measure) costs R51.4-51.5 billion. The individual income measure remains the most expensive programme.

At a ceiling of R3731 per month, the long-term proposal becomes the cheapest scenario, given the assumption that those in the upper deciles self-exclude – even though they are below the ceiling. The scenario which drops the UIF criterion becomes more expensive than the individual income scenario (R88 vs. R82 billion).

Table 7: Annual cost (all ceilings)

Simulated scenario	R624	R890	R1 335	R3 731
Individual income	67.2	69.1	72.1	81.5
Current scenario	27.8	38.5	51.4	73.5
Income averaged over 6m	27.0	38.0	51.5	74.0
Dropped UIF criterion	27.6	39.5	54.9	87.5
Long-term proposal	49.9	51.4	53.8	58.6

Source: authors' estimates based on LCS 2014/15, updated using the QLFS 2015 & 2021

4.8 Poverty impacts

In this section we focus on the Food and Upper-bound poverty lines of R624 and R1 335 per month. The poverty headcount at the FPL indicates the proportion of the population without enough money to purchase the calories needed to survive (extreme poverty), and the poverty headcount at the UBPL indicates the proportion of the population without enough money to purchase a basic basket of necessary consumption items for survival.

We do not show the individual income scenario as it is not a serious candidate. It is feasible and desirable to encourage some self-exclusion in the upper-most deciles, if it is not happening already. Not taking this into account would make the required budget appear must larger than the expected actual budget.

4.9 Extreme poverty

The grant ensures that between 27 to 33 percent of the previously extreme poor have enough to eat. All the programmes have fairly similar impacts on extreme poverty (there is much more variation in their impact on total poverty, discussed in the next section).

At a ceiling of R624 per month the impact ranges between 6.7 and 6.9 percentage points of poverty reduction (27-28 percent of the baseline, or 2.1 million people) (Figure 3a).

At the R1335 per month ceiling, the results a still similar but there is slightly more variation. The impact on poverty ranges between 7.0 and 7.4 percentage points (29-31 percent of the baseline, or 2.2-2.4 million people). The impact is lowest in the scenario where we use an average income measure, and highest when we drop the UIF criterion given that an additional small subset of people is eligible for the grant that is not eligible in the self-exclusion scenario (Figure 3a).

At a ceiling of R3731 per month extreme poverty is reduced by 7.6 in all scenarios except the one in which we drop the UIF criterion. In the latter, poverty reduction increases to 8.2 percentage points. This results in a range of 31-33 percent

reduction of the baseline extreme poverty headcount (2.4-2.5 million individuals) (Figure 3a).

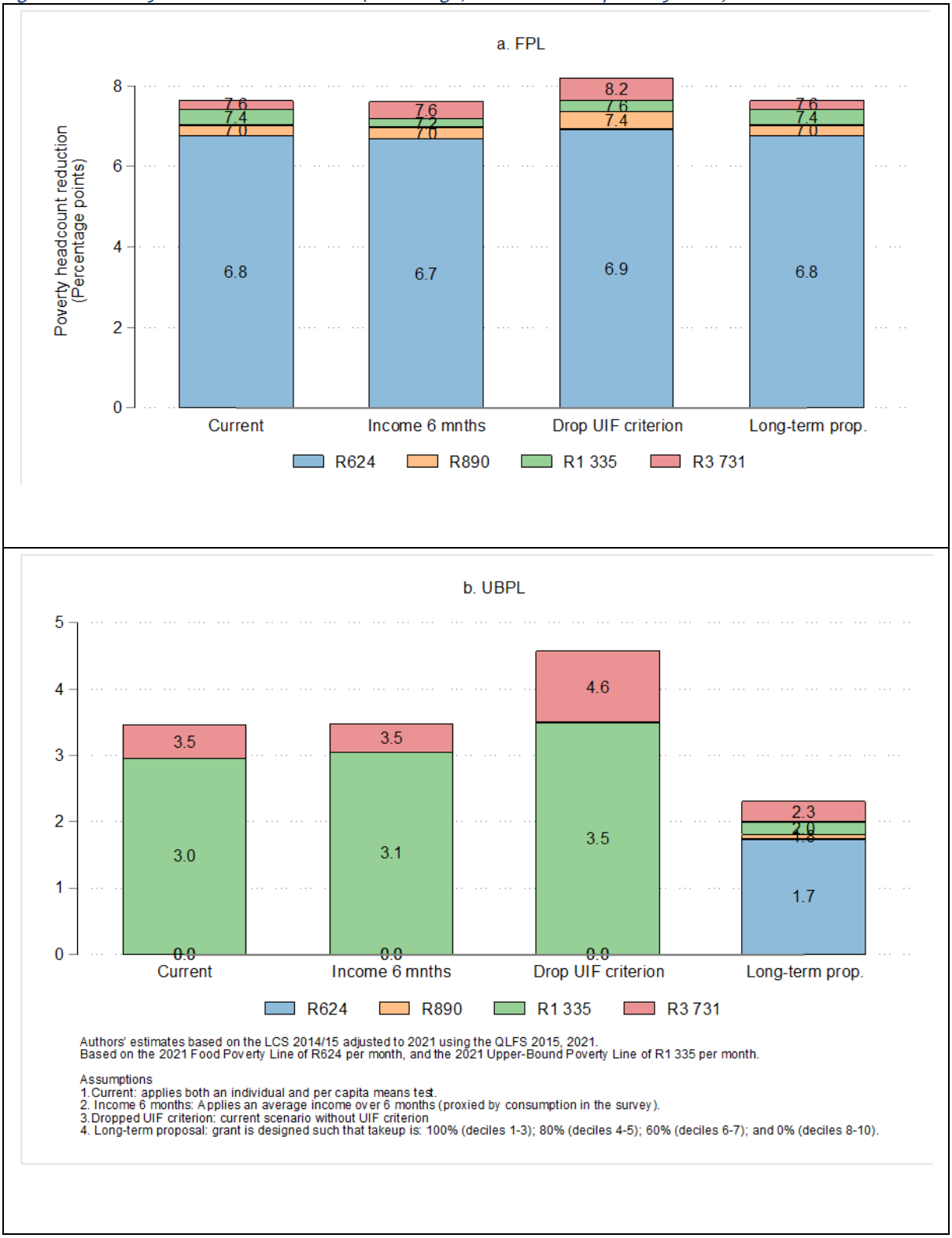
4.10 Total poverty

Only the long-term proposal has a non-zero impact on the poverty headcount with the application of a ceiling of R624 per month (1.7 percentage points, 3.3 percent of the UBPL baseline of 52.3 percent, or 0.5 million individuals). This is because the size of the grant is small relative to the UBPL. The R350 grant value constitutes 56 percent of the FPL threshold and only 26 percent of the UBPL. Only those that have income within 26 percent of the UBPL then will have their income raised above the threshold, but everyone receiving the grant should have income below R624, and so in the scenarios without any leakage this is impossible.

At a ceiling of R1335 per month, however, the impact of the long-term proposal is substantially lower than the other three scenarios at only 2.0 percentage points of poverty reduction (3.8 percent, or 0.6 million individuals). In contrast the other scenarios range between a reduction of 3.0 and 3.5 percentage points (5.7-6.7 percent, 0.9-1.1 million individuals). Again the scenario with the most impact is the one in which we drop the UIF criterion.

At a ceiling of R3731 per month, the order of impact remains roughly the same. The long-term proposal reduces poverty by 2.3 percentage points, the current scenario (with and without an average income measure over 6 months) reduces poverty by 3.5 percentage points, and dropping the UIF criterion increases the impact to 4.6 percentage points of poverty reduction. This is a reduction of between 4.4 and 8.8 percent of the baseline (or between 0.7 and 1.4 million individuals).

Figure 3: Poverty headcount reduction (all ceilings, FPL and UBPL poverty lines)



In order to better understand the poverty numbers above, the distribution of the scenarios is shown in Figure 4 in the next section.

4.11 Incidence

A substantial portion of the grant money in all scenarios is going to directly reducing poverty among the poorest people (Figure 4). Incidence is a measure of the size and distribution of a transfer relative to income. It tells us by how much each decile's income is increased by grant expenditures, as a share of their baseline total income. This is shown in the Figure 4 below for two income ceilings: R624 and R1335 per month.

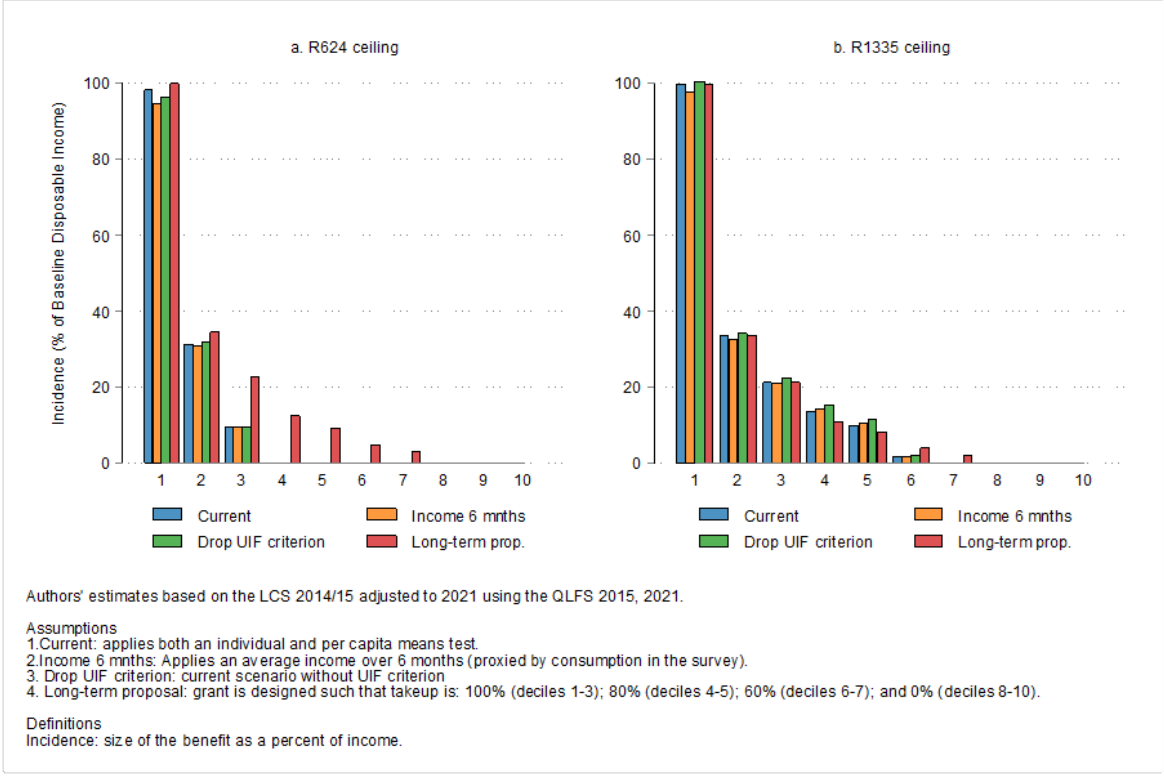
The deciles in Figure 4 below are calculated based on per capita income (household income divided by household size or average income per household member).[16] Given this, when a per capita ceiling is applied (such as in the current scenario) it perfectly prevents anyone above the per capita ceiling from receiving the grant. Due to the individual income ceiling, however, coverage of all poor individuals is not assured (the way it would be in a household grant, in theory) - because a recipient may have per capita income below the threshold but individual income above the threshold.

In the scenarios which use the strict bank test, no-one above Decile 3 receives the grant (blue, yellow, green bars, Figure 4a). At a ceiling of R624 (which falls within decile 3 of the x-axis in Figure 4a) the incidence of the long-term proposal is much higher in deciles 3-7 than in the other scenarios (red column, Figure 4a).

The ceiling of R1335 per month falls within the 6th decile, and so for the scenarios using the bank means test the number of eligible income deciles increases substantially (blue, yellow, green bars, Figure 4b). The height of the bars in the long-term proposal is lower than the other scenarios in deciles 4 and 5 due to the assumption that only 60 percent of recipients take-up the grant (red bars, Figure 4b).

[16] This corresponds to the way the poverty headcount is measured.

Figure 4: Incidence of SRD scenarios (R624 and R1335 ceilings)



Authors' estimates based on the LCS 2014/15 adjusted to 2021 using the QLFS 2015, 2021.

Assumptions
1.Current: applies both an individual and per capita means test.
2.Income 6 mnths: Applies an average income over 6 months (proxied by consumption in the survey).
3. Drop UIF criterion: current scenario without UIF criterion
4. Long-term proposal: grant is designed such that takeup is: 100% (deciles 1-3); 80% (deciles 4-5); 60% (deciles 6-7); and 0% (deciles 8-10).

Definitions
Incidence: size of the benefit as a percent of income.

4.12 Increasing the size of the grant

In terms of poverty reduction impact, it is more effective to increase the size of the grant to R500 per month than to increase the income ceiling to the size of the National Minimum Wage. In the current scenario, the cost of the SRD-350 at a ceiling of R3 731 is R73.5 billion. This is exactly the same as the cost of an of R500 per month (SRD-500) at a ceiling of R1 335.

Table 8: Annual cost (all ceilings)

Simulated scenario (R500)	R624	R890	R1 335	R3 731
Individual income	96	98.6	103	116.4
Current	39.7	54.9	73.5	104.9
Income avg 6-mnths	38.6	54.2	73.6	105.8
Drop UIF criterion	39.5	56.4	78.4	125
Long-term prop.	71.2	73.4	76.4	83.7

Source: authors' estimates based on LCS 2014/15, updated using the QLFS 2015 & 2021

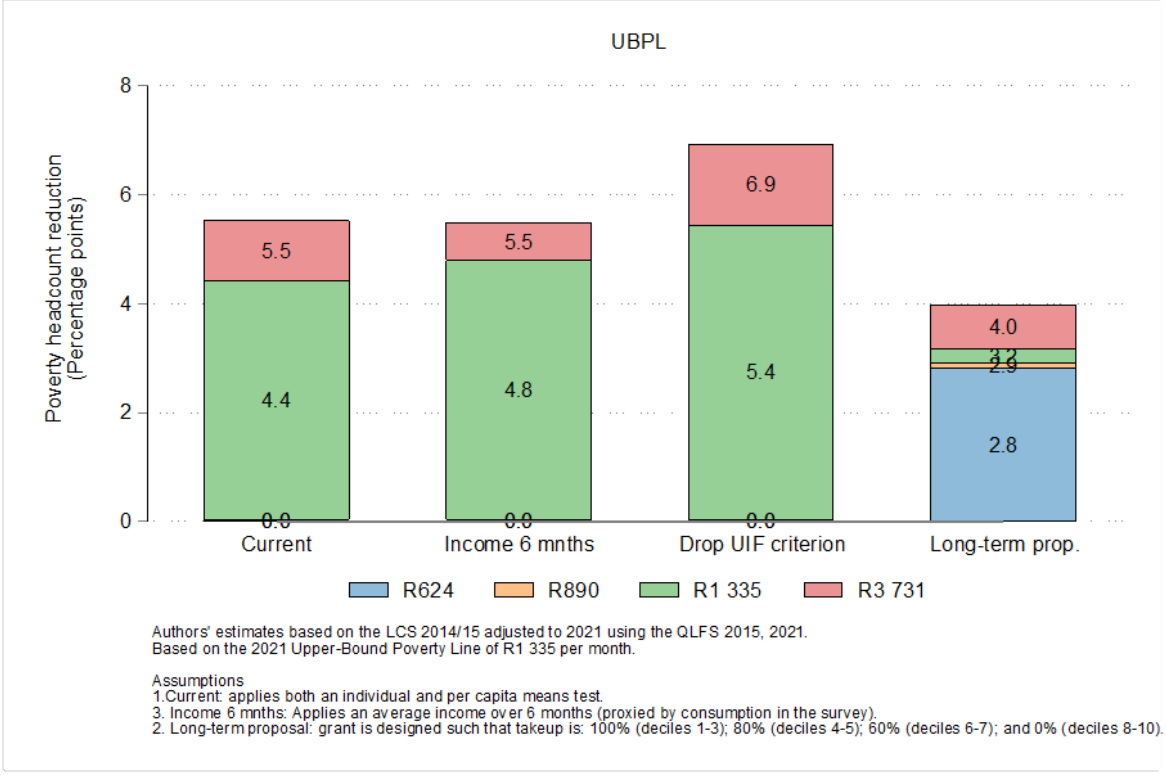
However, in the current scenario, the SRD-500 at a ceiling of R1335 per month reduces the poverty headcount by 4.4 percentage points, while than the SRD-350 at a ceiling of R3731 reduces the poverty headcount by only 3.5 percentage points.

We would expect it to have a larger impact on the poverty headcount, as a larger size grant is more likely to top an individual's income up to the poverty line. Do we see the same result for the poverty gap?

We see the same for the poverty gap (See Data Appendix 3) where in the current scenario, the SRD-500 at a ceiling of R1335 per month reduces the poverty gap by 7.4 percentage points, while than the SRD-350 at a ceiling of R3731 reduces the poverty headcount by only 5.6 percentage points.

A similar pattern holds for all the scenarios shown here, where increasing the size of the grant has a noticeable larger poverty-reduction impact.

Figure 5: SRD-500 poverty impact at the UBPL



In summary, our preferred scenario in the short-term is one in which we measure income over a 6-month period, and increase the threshold to R1335 per month. This increases the number of beneficiaries from 6.6 million (at a cost of R27.8 billion annually) to 12.3 million (at a cost of R51.5 billion annually), and increases coverage of the poor from 21.3 to 39.5 percent.

It also reduces extreme poverty by an additional 0.4 percentage points (from 6.8 to 7.2 percentage points) and reduces total poverty by an additional 0.5 percentage points (from 3.0 to 3.5 percentage points of poverty-reduction).

Despite the exclusion errors, increasing the size of the grant in the current scenario has a larger impact on poverty than increasing the income ceiling. Increasing the

size of the grant in the current scenario at the R624 income ceiling would increase total poverty reduction by an additional 0.9 percentage points (from 3.5 to 4.4 percentage points) and would cost only R39.7 billion. At a higher income ceiling and using the 6-month income measure poverty-reduction is increased by 1.3 percentage points (from 3.5 to 4.8 percentage points). In the next section we make recommendations for improving targeting in the long-run.

5 Our recommendations for improving targeting in the long term

We recommend that in the longer term, the grant should be designed so that the targeting does not rely on bank account data. We argue that the three most promising design options are targeting methods that use self-reported income, **encouraging self-targeting through messaging and grant application design** and **raising the eligibility ceiling to the national minimum wage**. All three of these options would require changes to the design or administration of the grant that would take time to set up. We suggest retaining the current means-testing approach in the short term and only implementing long term recommendations after completing further research.

In this section, we highlight issues with this proposal that present serious risks for both effective grant targeting and how the grant will affect potential beneficiaries in the medium term. We then discuss the merits and disadvantages of grant options that would only be possible in the longer term. We argue that implementing a household grant would be costly, risky undertaking, poorly suited to the household dynamics observed in South Africa.

5.1 Issues identified with the current proposal and possible solutions

5.1.1 Disincentives to use the banking system

The existing approach may discourage potential recipients from using the banking system to receive income in favour of reverting to use of cash that cannot be observed by SASSA, with serious negative consequences. In the long term, low-income individuals are likely to be aware of the methods used to screen grant applicants and respond to those screening methods in an attempt to secure the grant. This is consistent with behaviour observed for other means-testing conditions where there is evidence that households try to hide assets in order to be eligible for means-tested social assistance (discussed in detail below, see Asset-based_proxy_means.). Discouraging low-income individuals from using digital methods for saving and transacting will increase the challenges they face in saving [xxxiiixxxiv] and retaining control of their own income,[xxxv] increase their vulnerability to

some kinds of crimes[xxxvi] and reduce their ability to access finances to make costly investments.[xxxvii] **The policy of auditing bank accounts may also not effectively capture income from people with multiple accounts, undermining its effectiveness.** For example, individuals who were self-employed might operate a business account that was not linked to their personal account.

The lower the threshold of the means test is set for the grant, the worse the effect of discouraging the use of formal bank accounts is likely to be. Individuals who earn at or above the national minimum wage are highly unlikely to be paid in cash and therefore will struggle to remove themselves from the banking system. Moreover, the relative benefit for the SRD grant relative to the cost of leaving a national minimum wage job is likely too small to be worthwhile. By contrast, someone earning just above the lower-bound poverty level is more likely to be paid cash and so can more easily exit formal banking systems. Moreover, the SRD would represent a substantially larger share of income for this person. The incentive to deformalise and revert to cash will therefore be strongest for the most economically vulnerable. It is for this reason that we recommend setting the means testing threshold high enough that affected individuals at the threshold are unlikely to be motived by the amount they would gain from receiving the grant to move out of the formal banking system.

Our existing proposal already goes some way toward dealing with these issues. Having a higher income threshold (e.g. at the national minimum wage) would not exclude people who are earning low amounts from informal or casual or short-term work and hence would not generate an incentive to hide income from this work.bookmark://_medium_term_proposal/

5.1.2 Disincentive to enter the formal sector or start a business

There are concerns that **grants may discourage people working in the formal sector (where income is paid into their bank account) or deter them from starting businesses.** This could happen:

- If UIF or tax records were used to exclude people from the SRD
- If people do not want to get a formal job because employers insist on paying money into a bank account or
- If losing the SRD could discourage people from taking on short term formal work because they risk losing their grant. There are a lot of zero-hours or commission-pay-only jobs which may give valuable work experience and should be encouraged, but might not be sufficiently secure to risk giving up the grant.

Our view is that the grant is too small to discourage alternative economic activity. As discussed in Facilitating economic activity, the size of the grants under discussion remains small compared to wages from formal sector work, such that it is likely it is still rational for most people to take up formal sector employment if they find it.

5.1.3 Possible means testing methods that help to mitigate these concerns

- **Having a higher income threshold (e.g. at the minimum wage**) would not exclude people earning low amounts from informal or casual or short-term work and hence would not discourage this work.
- To more accurately measure total income, **banking checks should be extended** to merge records by ID number over people with multiple accounts.
- To reduce reliance on bank data, it might be possible to **introduce random audits of a very small, randomly selected subset of recipients.** This could involve a more detailed consideration of their data across the banking system, tax records and UIF records. The threat of being audited might encourage compliance, but without the costs of auditing everyone. In Indonesia, self-targeting (encouraging people to apply) to a grant programme plus an audit was found to improve accuracy rates relative to automatically enrolling candidates who pass an asset test. It also reduced costs.[xxxviii] However, the capacity of SASSA may be a constraint.
- To reduce reliance on bank data, **it might also be possible to revert to using checks on the UIF data and/or IRP5 tax data in addition to the individual means tests based on banking data.** [xxxix] However, ideally, in the longer term it would be useful to use these records as a complement to self-reported income data, to be able to capture individuals whose income was not captured by bank data checks.
    - **We suggest measures to encourage employers to improve the UIF data.** Government could introduce random audits of the UIF data and fine employers if the data is not correct (or give small bonuses, potentially tax credits, for correct data). Government could also make it possible for workers to check their status online and follow up with employers.
    - **We also suggest investment in SARS consolidating the IRP5 tax records regularly to be able to provide them to SASSA with less of a lag.**
    - Note that the Brazilian equivalent of UIF is used in Bolsa Familia to target that grant (see Appendix 2: More information on Bolsa Familia household grants).
- **If the grant is targeted using income measured in banking data averaged over a longer period,** recipients would only be removed from the SRD after they

had managed to earn income for some time. If UIF or tax data were used, the same principles could be applied: someone could be removed from SRD only when they have had UIF payments made for six consecutive months and they have wage payments over a certain threshold in some consecutive months, or if they have earned income above the threshold from self-employment for six months.

- **It might be possible to use data on municipal valuation roll to remove any wealthier beneficiaries without relying on banking data.** This will require linking address variables in the grant application form to municipal valuation rolls. The applicant would need to state their primary residence in the application. This would be used as a mechanism to exclude individuals who meet the eligibility criteria, but whose household resources lie above a defined threshold. A downside, however, is that requiring proof of address could lead to the false exclusion of individuals in the lower deciles.
- **SASSA could supplement these methods with the same means-testing procedures applied to the Child Support Grant,** requiring individuals to submit documents that prove financial status themselves or obtain an affidavit when they do not possess the required documents. Although this method could be cheated by fraudulent documentation, the administrative burden of obtaining multiple affidavits or fraudulent documents is unlikely to be worthwhile for individuals to whom the grant is a relatively small amount of money, particularly if coupled with auditing.

Our existing proposal already goes some way toward dealing with these issues.

- **Having a higher income threshold (e.g. at the minimum wage**) would not exclude people earning low amounts from informal or casual or short-term work and hence would not discourage this work.
- **If the grant is targeted using income measured in banking data averaged over a longer period,** recipients would only be removed from the SRD after they had managed to earn income for some time. If UIF or tax data were used, the same principles could be applied: someone could be removed from SRD only when they have had UIF payments made for six consecutive months and they have wage payments over a certain threshold in some consecutive months, or if they have earned income above the threshold from self-employment for six months.

5.2 Concerns with an alternative approach: targeting households

We do not recommend a grant targeted at households in the medium term. Targeting the grant to households in this way is a major undertaking that will be costly and time-consuming to set up and maintain and may not transfer well to the

South African context given our history of migrant labour and "stretched" households.

5.2.1 A household grant would raise a number of practical issues in implementation

There has been extensive consideration of a grant to households based on the Bolsa Familia in Brazil, where either each adult in a poor household receives a benefit, household income per capita is topped up to R624 per capita, or the two are combined. The efficiency gains of the Family Grant assume that grant eligibility and grant amounts are set based household's most recent monthly income, as observed in survey data. However, it is close to impossible to measure income so regularly. The further away in time one gets from the original measurement of income done face-to-face with households, the more inaccurate the income data becomes.

In Brazil, households are registered by social workers managed by the municipality. [xl] Household heads visit social security offices to register. Social workers visit households to measure their income and household composition. This is updated every two years. The data households report is compared to administrative records, including the equivalents of the UIF and SASSA data on beneficiaries of other grants. They are targeted with different levels of benefit. This requires the following ingredients:

- It requires a register of households with household members, which needs to be set up and maintained. This requires that the household head and household is agreed and defined. Brazil does not have the same levels of households split across rural and urban locations as South Africa.
- There needs to be capacity to conduct home visits and means-testing through asset surveys.
- The household and its income need to be tracked over time to allocate the right amount of grant funding. The fluidity of South African households may render the country a particularly difficult context for such a grant. People move extensively based on work and family obligations. There would be administrative work in moving individuals between households and adjusting amounts of grants based on this. It would also be difficult to monitor where individuals received their grant allocation if they moved regularly between more than one household. Individual grants do not need to be altered when an individual moves.

It is likely to take time, extensive funding, and very strong local capacity to set up a household targeting system. It seems unfeasible to set this system up in less than a couple of years. Bolsa Familia took ten years to set up, including the establishment of offices in each municipality to regularly survey and assess households and their assets. It relies on very strong municipal infrastructure. Brazil also faced major

issues during the first years of its implementation, in particular with collection of data. See Appendix 2: More information on Bolsa Familia household grants for details on the Brazilian system.

Removing SRD grants without an alternative system in place would remove beneficial impacts from individuals currently receiving them. Our previous work outlines the extremely strong international evidence that cash transfers have benefits in reducing hunger, improving dietary diversity and preventing households using detrimental coping strategies. It also outlines that cash transfers can encourage job search and enable self-employment.[xli]

5.2.2 Household grant data collection cost and difficulty

In addition, household grants face the following issues:

1. **The additional data collection required may induce considerable costs.** In Indonesia the census of the poor costs $42 million every three years, with additional annual costs of $1.1 million.[xlii] In Peru, it costs $10.8 million, with annual costs of $1.1 million.[xliii] Per year, this is an additional 0.8 and 1.7 percent of the overall transfer budget in Indonesia and Peru, respectively.[xliv] The 2009 targeting survey in Pakistan cost $60 million. Kenya's Hunger Safety Net Program spent approximately $10 million to survey only 380,000 households (4% of the population).[xlv]

2. **To achieve good targeting while using self-reported income, it is very likely the programme would also need to verify self-reported data against bank data, like the SRD.** Thus, the household grant would face the same issues with income data that the SRD faces. Indeed, in Brazil, since 2005, the CadÚnico is verified against other federal data (See Appendix 2: More information on Bolsa Familia household grants).

3. There is a strong possibility of **corruption** in the process of determining if a household is eligible during the process of surveying. The SRD would use administrative data relying on multiple reports (individual's reports, banks, possibly employers) which does not rely on an assessment being made by one municipal worker. There is still possibility of fraud but it is likely to be diminished.

4. **The efficiency gains of the Family Grant, as modelled by SALDRU, rely on grant eligibility and grant amounts being based on household's most recent monthly income, which is measured in the surveys used for modelling.[xlvi] However, it is close to impossible to measure income so regularly.** Even Bolsa Familia doesn't manage to regularly visit households to measure income: they measure income by visiting households only every two years and in between,

use checks against administrative data. This means that there is likely to be considerable error in measuring income, leading to errors of inclusion and exclusion. **The further away in time one gets from the original measurement of income done face-to-face with households, the more inaccurate the income data becomes.** As was clear in subsequent media discussion of the SALDRU report,[xlvii] the more measurement error there is in income, the smaller the difference between the SRD and the Family Grant in terms of efficiency. It is very difficult to estimate the extent to which the system could overcome these issues.

Collectively, **these challenges point to a considerable risk of substantial targeting error. Given likely extensive delays, it is unclear why there is benefit to setting up a new system for potentially little improvement in targeting accuracy over the SRD.**

5.2.3 Intrahousehold issues

In addition, household grants may face difficulties in households where there are difficult intra-household dynamics.

1. **Allocating grants to the household may prevent household members leaving if they would lose grant income.** This would be a particular concern if household members faced domestic violence. It would be an even worse concern if the Child Support Grant and Family Grant were rolled into one and controlled by an abusive household head, making it difficult for people leaving the household to take children with them.

2. **Households may not share resources efficiently internally.** With an individual grant, individuals receiving grants can still pool resources if they want to, but if they receive their own grant, they can choose not to if they deem this optimal for them. For example, there is strong evidence that households do not spend optimally to improve nutrition of all members. A very large number of undernourished individuals live in non-poor households, suggesting that those who control income in households may not distribute it to ensure all household members benefit. In 30 countries in sub-Saharan Africa, around half of underweight women are found in households in the top three wealth deciles.[xlviii] Studies in Bangladesh[xlix] and China[l] find male household heads have a much smaller caloric and micronutrient shortfalls than other household members.

5.3 Concerns with using other proxies for income or other targeting methods

One of the primary arguments against income-based targeting is that it falsely rejects a large number of eligible beneficiaries. Additionally, accurately determining

income is difficult given the data constraints. We examined other potential methods of targeting used internationally or suggested in South Africa and believe their disadvantages are worse than this proposal. We discuss demographic proxy indicators of poverty, age-based, geographic-based and community targeting in a previous paper and show these have considerable downsides. [li]

5.3.1 Asset-based proxy means tests

In proxy means testing, government measures an-easy-to measure proxy for income known to correlate with income (usually asset ownership) and uses this to target the poorest. The government conducts large, periodic quasi-censuses of the population, focusing on those most likely to be poor (e.g., using geographic targeting). Surveys typically ask about assets, such as televisions and refrigerators or housing quality. I Proxy means tests are usually collected in household surveys done at individuals' households. In survey data, the government can map the relationship between these assets and people's incomes and use this mapping to estimate people's income.[17] Families that are below a certain level of assets are offered the benefit. it is implemented in Indonesia, Pakistan, Nigeria, Mexico, and the Philippines.

In recent variations on this approach, households sign up for grants instead of being enrolled automatically on the basis of the census of the poor. Government can then screen all households who sign up using a proxy-means test. To further reduce costs, government can audit only a random subset.

We do not recommend using this approach immediately, although it is the most viable alternative to using an income-based measure. The approach has the following disadvantages:

- We are not aware of examples where proxy means tests have been used for individuals rather than households, so this approach would need to be designed and tested. For example, it is not clear if unemployed individuals living in households above the asset threshold should be excluded from an unemployment grant if a) the grant will help them find work and b) if they get no benefits from the ownership of the asset. This is the most important difficulty. One approach suggested in South Africa is to disqualify individuals who have registered vehicles, however this would only remove 600 000 people from the eligibility pool.

[17] Specifically, the government takes a data set with information on the same asset variables as in the proxy-means census and also a measure of poverty, such as a household's monthly income or per-capita expenditure. The government then estimates a regression with the measure of poverty as the dependent variable and the assets as explanatory variables. The proxy-means score is the predicted income or expenditure, which the government can calculate for any household using the coefficients from that regression. The government then can set a threshold for eligibility and distribute benefits to all households with predicted incomes below the threshold.

- Targeting may require collecting more data from households at their household, to avoid reporting errors. This would be much more expensive than the current SRD approach. In Indonesia the census of the poor costs $42 million every three years, with additional annual costs of $1.1 million.[lii] In Peru, it costs $10.8 million, with annual costs of $1.1 million.[liii] Per year, this is an additional 0.8 and 1.7 percent of the overall transfer budget in Indonesia and Peru, respectively.[liv] The 2009 PMT survey in Pakistan cost $60 million. Kenya's Hunger Safety Net Program spent approximately $10 million to survey only 380,000 households (4% of the population).[lv]
- Data collection may be a significant organisational effort, which can undermine the efficacy of targeting.[18]
- If criteria do become known, households may strategically misreport or hide assets to make sure they fall under the cut-off.[lvi] For example, many programmes use asset measurement as a proxy means test (PMT) to target cash transfers.[19] Five studies, in a range of different settings find evidence of households strategically misreporting assets to remain below the cut-off for social assistance.[lvii] The National Treasury also finds that this occurs with Child Support Grant recipients.[lviii]
- Criteria which are not publicly known may make it difficult for recipients to report administrative errors or corruption, and more broadly make it harder for beneficiaries to understand the programme. Programmes that inform recipients what they should expect from programmes seem to reduce leakages in the program significantly. In a trial in Indonesian villages, in some villages central government told beneficiaries directly that they were eligible for a rice subsidy. Those villages received 26 percent more rice than villages where only the village head learned who was eligible.[lix]

However, proxy-means testing may be viable to implement in the longer term if there are worries with the income-based approach. Advantages of this approach are:

- It is potentially more difficult for households to distort behaviour in response to the cut-off because the exact cut-off used is not public. Censuses of the poor can also be linked to bank accounts, which can further facilitate quick payments.[20][lx]

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[18] In many countries, there have been long gaps between surveys: Pakistan last did a PMT in 2009; Indonesia had a four-year gap between PMTs in 2011 and 2015; and in Mexico, in some areas, registration for their CCT program (Oportunidades) was not repeated for ten years. Kidd S., Gelders B., & Bailey-Athias D. (2017). Exclusion by design: an assessment of the effectiveness of the proxy means test poverty targeting mechanism. Working Paper 56, International Labour Office, Geneva.

[19] Data from large, periodic censuses of the population, focusing on those most likely to be poor, can be used to measure people's assets. The government then maps the relationship between these assets and people's incomes and then estimates people's income. People with or without certain assets can be classified as being poor and eligible for grant payments.

[20] Chile has a national ID-linked basic account for most poor people, which they used to pay more than 2 million low-income individuals a once-off grant during COVID19. India has sent money to Jan Dhan basic bank accounts for the poor, linked to the Aadhaar ID system.

- Limited discretion for officials, which might reduce corruption in assessing eligibility.[lxi]
- Censuses of the poor can be used to means test other programmes. This reduces the administrative burden of means-targeting any one programme, enabling the government to target free or subsidised programming at the poorest.[21]
- Censuses of the poor can be used to easily roll out new programmes without needing to collect new data. These could be used to deliver stimulus during economic downturns or quickly adapt eligibility criteria for programmes. [22][lxii]
- The modified versions of proxy means tests can reduce costs and administrative work by reducing complexity of the process. E.g., if people self-enrol, government can skip home visits for those who didn't apply. Indonesia tested both adaptations: households had to apply for cash transfers, were screened using the proxy-means test, and then a fraction who passed the in-person eligibility test had their eligibility verified via a home visit. This improved screening; the beneficiaries selected by the new method were about 20 percent poorer than those selected through automatic enrolment based on a proxy means test.[lxiii]
- Proxy means tests can be fairly accurate: exclusion error in Peru was roughly 6 percent.[lxiv] However, exclusion error can also be high: households move in and out of poverty year on year, which worsens the exclusion and inclusion errors of targeting. The size of errors will depend on how frequently the government collects data from households and how much mobility in and out of poverty occurs over time. In an Indonesian study, exclusion errors ranged from 50 to 93 percent. Amongst inclusion errors, the 'near-poor' are more likely to be included than the rich. In Indonesia, it was found that 14 percent of the rich were wrongly included, whilst 59 percent of the near-poor were.[lxv]

5.3.2 Airtime or utility expenses

We do not support alternative means-testing proposals in South Africa to use proxies such as airtime or utility bills.

- Using airtime, utility and rates expenses as proxies could also result in adverse behaviour such as opting out of electricity and water payments.
- Using airtime as a proxy for income penalises jobseekers who need to be applying online and discourages individuals to participate in online courses to improve their skills. From a sample of 243 unemployed individuals, the

[21] For example, the Indonesian government uses the census to target scholarships for poor students and subsidized health insurance for the poor. It has also administered temporary and periodic unconditional cash transfers to households to help offset shocks in fuel prices. Peru uses the census to target nutritional subsidies and subsidized health insurance.
[22] E.g. Peru and Brazil used 'censuses of the poor' to target COVID19 cash transfer programmes to quickly identify beneficiaries who were not normally poor enough for transfers but did need them during an emergency.

average job seeker in Johannesburg spent R82.50 per week (R354.75 per month) on airtime and data for activities related to the job search alone.[lxvi] Given the non-linear nature of airtime payments, even when imposing a high threshold using airtime payments would result in lower decile beneficiaries being falsely excluded from receiving the grant.

5.3.3 Ordeal mechanisms

Ordeal mechanisms are where benefits are made conditional on actions that will be unattractive to applicants who do not need the income support. E.g. work requirements or onerous conditions. This is argued to target grants effectively.

We do not recommend instituting self-targeting programmes with ordeal mechanisms (e.g., public works) solely for the purpose of targeting poverty relief most effectively. These are costly relative to other methods of targeting so should not be used unless they have other benefits (e.g., skills development).

- For each dollar spent, an average of 42 cents reaches beneficiaries for cash programmes, while it is 31 cents for public works programmes.[lxvii]
- Such programmes be susceptible to fraud and corruption as there is discretion in monitoring whether households have complied.[23]
- It requires alternative systems for e.g., those unable to work.
- A system to assess applicants and to implement conditions is required.
- There is considerable administrative burden and cost - e.g., needing to set up jobs on public works.
- The study on imposing small administrative costs to improve self-targeting from Indonesia found that additionally increasing the costs of travelling to registration sites did not improve targeting.[lxviii] This evidence suggests that adding ordeals in addition to the administrative burden of applying to the grant may not improve targeting.

We discuss conditions linked to requiring job search in Section 6.4: Arguments against placing job-search conditions on the grant.

5.4 Comparative experience

Comparative experience suggests South African targeting is a considerable improvement on some other programmes. A recent meta-review on different targeting methods suggested other programmes also face considerable difficulties in targeting. [lxix] For more information on how South African means testing compares globally (see Appendix 2: Comparative Experience on Means Testing. Examination of the Brazilian experience with Bolsa Familia suggests the importance of continuing to

[23] Transparency International reports on global corruption state that public works is one of the sectors displaying the highest corruption vulnerability in developing markets. Fukuyama, F. (2005). Global corruption report: Corruption in construction and post-conflict reconstruction, transparency international. For potential interventions to reduce corruption in public works, see the review in Subbarao, K., Del Ninno, C., Andrews, C., & Rodríguez-Alas, C. (2012). Public works as a safety net: design, evidence, and implementation. The World Bank.

refine the targeting methods of programmes over time, based on evidence on their performance. For more information, see the detailed case study of the Bolsa Familia in Appendix 2: More information on Bolsa Familia Household Grants.

6 Maximising impact on unemployment

Job search assistance covers a wide range of programmes that help people search for jobs: better information about jobs, better ways to search for jobs, subsidies to cover search costs, encouragement, etc. We distinguish these from skill training programmes, which are designed to increase jobseekers' employability and productivity if they get a job.

There is evidence that some active labour market services may increase job search and employment rates and we recommend implementing such interventions in conjunction with the grant in a phased way. This may magnify the unemployment-reducing effect of the grant, although the services have been studied in isolation rather than in combination with a cash grant.

We recommend phasing in the support that government offers to jobseekers, prioritising policies that are well-supported by local evidence and easy to implement, and scaling to more ambitious projects in the long term. Below we suggest policies that address the challenges individuals confront while searching for jobs. The policies are organised into phases on the basis of their evidence-base and the costs associated with implementing the policy. Phase one policies are affordable to implement and have already been tested in South Africa. Phase two policies are affordable online interventions with some supporting international evidence that would need to be tested in South Africa. Phase three policies are more costly, although they could still feasibly be implemented online. They have some supporting international evidence and would require testing in the South African context. Phase four policies require the largest financial and logistical commitment, have more limited international supporting evidence and would require extensive testing in the South African context.

The main vehicle we recommend for reaching jobseekers is an online platform. For young jobseekers, this exists in the form of the sayouth.mobi site. SAYouth is part of the Presidential Youth Employment Intervention and is managed by the NGO Harambee. SAYouth brings together many partners to create a single network that allows young people to access a wider selection of opportunities. It allows firms to post jobs; jobseekers to apply to jobs, internships, and training programmes; and jobseekers to get advice and coaching on job search. sayouth.mobi is zero-rated on MTN, Vodacom, Cell C, Telkom and Rain. Its aim is to manage employment pathways for young people at scale. SAYouth allows employers to load job opportunities and engage with applicants on the platform. Broadly its features can be split into four categories: (1) a user profile, which contains harambees' personal information, contact details, education history, employment history (2) the Jobs section, which includes both formal job opportunities and internships, learnerships and entrepreneurship opportunities (3) the Skills section, which shows information about online and in-person courses such as computer literacy and second-chance matric

(4) the Content section, where users can find resources about job search, CVs, cover letters, interviews and hustling. **For older jobseekers, an online platform would need to be urgently developed.** We recommend keeping job adverts on one platform, to decrease hassle for employers and jobseekers, so do not recommend an entirely new platform. **In the meantime, we recommend using data of grant applicants to compile a centralised and up-to-date database of jobseekers that can be used to SMS links to job search support services to older jobseekers.**

These types of job matching platforms and services do not automatically increase employment but they can be used as a vehicle for cheaply providing services to jobseekers, particularly those for whom it is more difficult to access face-to-face services in labour centres. Creating a matching platform by itself may have limited results if firms post few jobs, jobseekers apply for few jobs, or jobseekers apply to jobs they cannot get.

For all platform activities, we recommend consideration of factors preventing jobseekers using online job search training and tools effectively. These include high data costs preventing jobseekers from using the internet and poor-quality mobile phones. Government should consider providing all sites zero rated or funding airtime and possibly bulk-buying and providing discounted access to simple smartphones.

We strongly recommend that labour market services are rigorously tested before scaling to confirm their effectiveness in a South African setting. There is very mixed evidence about the general effectiveness of job search assistance programmes in increasing employment and earnings. The fixed cost of setting up the programme may be high so they may not represent value for money and must be rigorously tested. One meta-study, covering mainly research in high-income countries, finds that job search assistance programmes have larger short-term effects on employment and earnings than skill training programmes or public employment programmes.[lxx] However, the positive short-term effects of these programmes do not reliably persist after 2-3 years.[lxxi]

In the last subsection, **we argue that these policies will function best if no explicit job search-related conditions are placed on SRD grant recipients.**

Phase One: Immediate term, affordable to implement, in some cases, South African supporting evidence

6.1 Labelling

We recommend encouraging jobseekers to use grant income for job search by labelling the grant as a "jobseekers grant". Labelling unconditional cash transfers may help to encourage the job search objectives of this grant, without generating exclusions by setting punitive conditions that are difficult for the poorest to comply with.

"Labelled" cash grants are unconditional, but delivered in a way that strongly encourages recipients to spend the grant in specific ways. Label grant as a "jobseeker grant". Avoid the use of stringent conditions because labels can often achieve equally positive outcomes.

- Email or SMS beneficiaries to inform them of the intended purpose of the grant after they are approved - "This grant can help cover the costs of job search"
- Have the president announce the grant as a jobseeker grant and briefly outline some of the ways the grant can be used to finance job search in the budget speech.
- Conduct mass media campaigns about the new grant explaining the evidence for how recipients can use the grant for job search.
- Conduct media campaigns that emphasise the link between job search add-ons outlined in this table and grant receipt.

Intervention and Problem it Targets:	Evidence
Labelling the grant Jobseekers have many competing financial demands and limited means to finance job search. They may not search	• Some related studies show that the share of income spent on the stated goals of unconditional transfer programs is larger for the transfer than for income from other sources. This provides some evidence for labelling shifting spending. But the evidence is very indirect, so we view this research as suggestive rather than conclusive. • A cash-transfer programme in Morocco found that a cash transfer labelled as for encouraging school attendance was as effective as a transfer which was conditional on school attendance Both successfully encouraged school attendance. • A study of the Kenya Cash Transfer Programme for Orphans and Vulnerable Children evaluated the effect of a conditional transfer (with monitoring and penalisation for non-compliance) compared to a

enough to get jobs.	labelled arm.[lxxii] Those not facing monitoring understood the desired uses of the grant as well as those facing penalties and achieved equally positive outcomes on schooling. • One study from Mexico's PROGRESA compared a conditional education grant to a labelled education grant. Imposing conditions led to higher school enrolment.[lxxiii] However, the study is based on an administrative error in imposing conditions, rather than a trial testing conditions against a clearly labelled option.

6.2 Development of online platforms

We recommend immediate development of online platforms like sayouth.mobi to enable delivery of online job search services and training to all grant recipients.

For young jobseekers:

- Require people to sign up to sayouth.mobi when receiving the grant.
- Use sayouth.mobi for all public employment opportunities.
- Encourage grant applicants to use free job search resources on sayouth.mobi.

For older jobseekers not eligible for sayouth.mobi:

- Require recipients to register contact details on a centralised database. Initially, use details to SMS work opportunities (e.g. the DBE assistant programme or other public works) and information about existing government services (e.g. support for small businesses).
- Over time, enable them to access training on sayouth.mobi.
- Over time, build out capability to provide other online services e.g. by developing another platform or adding them to a different section of sayouth.mobi.

Cost: Cost of setting up platforms. Platforms can be zero-rated so they don't have data costs but government needs to pay the costs of this. Cost of sending SMS's (<R0.18 per SMS sent)[24]. If necessary, cost of providing mobile phones.

6.3 Job search assistance

Using platforms, deliver evidence based online job search services and training to all grant recipients, beginning with interventions that have already been tested.

[24] This figure is from SMSPortal's pricing list. Details can be found at: https://smsportal.com/products/bulksms/#bulkpricing

Urgently commission sayouth.mobi and other platforms to add further functions to this platform to provide more job search training, after rigorous testing.

Evidence on the success of these interventions is already available in the South African context so they should be implemented at scale.

- **Certification of workplace ready skills:** Scale up skills testing on sayouth.mobi. Encourage jobseekers on the sayouth.mobi database to self-administer skills testing. Integrate results of skills certification into profiles of jobseekers on sayouth.mobi from the platform side so that the results of the skills certification are credible to prospective employers. Expand to in-person assessment for more credible results in the long-term.
- **Encouragement to get reference letters**: Integrate reference letter templates into sayouth.mobi platform; SMS jobseekers in sayouth.mobi database with information about the usefulness of reference letters
- **Training on searching for jobs online:** Adapt the open-source Linked-In curriculum to create online videos training jobseekers on effective use of sayouth.mobi.
- **Job search action plans:** Integrate job search action plans into sayouth.mobi platform; SMS jobseekers in sayouth.mobi database with information about the usefulness of action plans.

Intervention and Problem it Targets	**Evidence**
Certification: Jobseekers struggle to communicate their skills to employers, particularly when they lack work experience.	In South Africa, formal certification of (communication and numeracy) skills substantially improved employment and earnings.[lxxiv] Giving jobseekers information about their skills without the formal certificate had similar effects on search but smaller effect on employment and earnings, suggesting employers do not trust uncertified information. In Uganda, soft-skills certification caused jobseekers to increase their labour market expectations: skills certification led to **7% higher expected earnings** and **5% higher expected employment probability.**[lxxv] It led to employers revising their assessment of jobseekers skills upwards .[lxxvi] This resulted in better matches between firms and workers and higher wages conditional on employment.

	Skills certification in Jordan did not result in any meaningful fall in unemployment among graduate jobseekers, because jobseekers rejected 83% of job applications, highlighting the importance of non-wage job attributes in matching .[lxxvii] **Cost**: In South Africa, an in-person assessment and skill certification cost about R350 per person.[lxxviii]
Reference letters: Jobseekers struggle to communicate their skills to employers.	Reference letters are used infrequently by jobseekers in many developing contexts: 2% in South Africa[lxxix] and 22% in Uganda[lxxx]. When used, reference letters are generally of low quality. In South Africa, encouraging youth to include a reference letter with their job applications and providing them with a simple template letter **increased employer call-backs by 60 percent** (a 2.5 percentage point increase).[lxxxi] This effect was driven by increased interviews and employment for women. **Cost:** Cost of adapting a reference letter template and SMSing jobseekers about it.
Training on searching for jobs online: Jobseekers do not know how to use online platforms well to search for jobs.	Access to online job search and matching services has mixed effects on employment across different studies. [lxxi] [lxxii] Evidence suggests that job-matching programmes are more effective when combined with training on how to use them. In South Africa, training jobseekers to use LinkedIn to search for jobs and learn about the labour market increased employment.[lxxxii] These employment effects are explained by jobseekers using the platform to acquire information about prospective employers. **Cost:** The LinkedIn training cost $48 PPP or $21 at the nominal exchange rate per candidate.[lxxxiii] This equates to a cost of $685 per additional candidate employed. This cost-per-placement is lower than almost any developing country program reviewed.
Job search action plans: jobseekers face psychological barriers to	Encouraging youth to create an action plan for their job search in South Africa as part of a basic career counselling workshop **increased job offers by 30 percent** and **increased employment by 26 percent.**[lxxxiv] This was administered through the Department of Labour's job

searching enough.	centres. Jobseekers diversified their search strategies and applied through more formal channels. They applied for more jobs but did not spend more time searching, which is consistent with intention-behaviour gaps. These action plans helped youth engage in more effective and efficient job searches, including by unpacking complex, difficult tasks into smaller and more achievable ones. **Cost:** Cost of developing encouraging prompts and planning template in short term. Cost of training personnel to perform this job-counselling module in long term

Phase Two: Can be implemented on platform, some supporting international evidence, pilot and evaluate before implementing

These services have not been tested in the South African context and should be tested before scaling:

- **Provide jobseekers with access to labour market information.** This information can cover conditions like avai;able jobs in their area, unemployment rates, search time required to get jobs with various skills and experience levels, typical wages, the probability of getting a job across different sectors or working conditions in specific industries. Some of this information can be attained by analysing patterns of labour market activity on Sayouth.mobi platform to establish useful information for platform users. This information can be shared on sayouth.mobi and sent via SMS to SASSA database users. Labour market information provision can be effective when jobseekers have incorrect or incomplete information about the labour market and this information causes "incorrect" search decisions and hence lower employment. Incorrect or incomplete information is not a sufficient condition for using these types of programmes, as providing more accurate information about a dismal labour market may lead to lower job search and employment.

- **Provide jobseekers with personalised information about their suitability for job openings on sayouth.mobi using a ranking algorithm.** The ranking algorithm can take in sayouth.mobi users' education and employment history as well as the results from online skill certification. This information should help jobseekers update "incorrect" beliefs about their own suitability for different types of jobs and might be particularly helpful for entry level jobseekers.

- **Conduct a mass-information campaign inform jobseekers of high-growth sectors that are recruiting**. The sayouth.mobi database and SASSA database of jobseeker grant recipients could both be used for this purpose. Workers overestimate the time it will take to find work and their chances of finding work in certain sectors. A mass-information campaign about sectors with high(er) demand is a cost-efficient way of (partially) addressing this information problem.

Information interventions haven't been shown to have large impacts on employment itself. However, they are cheap and do seem to improve the quality of the employment, defined variously as permanent, formal or wage-employment. Information interventions tend to cost about $25 or less per participant,[lxxxv] and are among the most cost-effective policy options in labour markets.[lxxxvi]

Intervention(s) and Problem it Targets	Evidence
Labour market information and information about high-growth sectors: Jobseekers struggle to find information about available jobs in their area. Jobseekers may not be aware of available government services that could support job search	In rural India, conducting recruiting and information sessions to tell young women about employment opportunities in call centres increased enrolment in vocational training and employment.[lxxxvii] [lxxxviii]Each recruiter was paid $15,000 in salary and expenses and provided services to10 villages, each with approximately 125 girls/women of the relevant ages, for a cost of $12 per individual.
Labour market information: Jobseekers generally underestimate the time needed to find a job and overestimate the wages they can earn. This can lead to insufficient savings during unemployment and	In Germany, mailing information about local unemployment rates, job search strategies and the benefits of job search to unemployed jobseekers had limited average impacts on employment and earnings but positive effects for jobseekers at the highest risk of long-term unemployment.[lxxxix] **Cost**: the total cost for production and mailing amount to less than EUR 1 per brochure.

insufficient job search.[lxxvii]	
Labour market information and information about high-growth sectors: Jobseekers have inaccurate beliefs about their chances of getting a job in different sectors and often do not search in sectors where they could find a job.	Evidence from Scotland suggests that using available labour market data to show jobseekers alternative occupations, **broadens the set of jobs they consider by 0.2 SD** (equivalent to 3 months of unemployment).[xc] It **increases job interviews by 44%.** This effect is larger for participants who otherwise search narrowly and have been long-term unemployed. **Cost**: Designing the tool cost £20,000. Near zero marginal costs.[xci]
Personalised Information: Jobseekers have inaccurate beliefs about their chances of getting a job in different sectors and often do not search in sectors where they could find a job.	In Iraq, the addition of personalised information to an online job platform led to better self-targeting among jobseekers.[xcii] These effects were mainly concentrated among entry level jobseekers. For each job advert, the portal gave jobseekers information about their CV's suitability and their estimated rank amongst the candidates who have already applied to the job. **Cost:** Minimal[25]
Personalised Information: Jobseekers have inaccurate beliefs about their chances of getting a job in different sectors and often do not	In South Africa, skills assessments and certification aligned jobseekers' beliefs and search strategies more closely with their measured skills.[xciii] Skill **certification increased the employment rate by 17%, increased weekly earnings by 34%,** and **increased hourly wages by 20%** relative to the control group. **Cost:** The average variable cost of certification and assessment was $57.27 per participation, which included a

[25] **Research is ongoing so precise costing information is not available.**

search in sectors where they could find a job.	transport subsidy to each participant. This could be deducted if skill certification was done online.[xciv]
Information about high-growth sectors Jobseekers have inaccurate beliefs about their chances of getting a job in different sectors.	In Peru, online and SMS public information provision about job vacancies had small, positive impacts on employment.[xcv] Participants in the treatment group are **0.55% more likely to be employed after 1 month**. This effect declines over time. **Cost:** cost of compiling information about job vacancies and sending SMS's to jobseekers.[26]

Phase Three: Need to be implemented off platform but can be online. Some supporting evidence. Requires substantial financial and/or logistical commitment to implement successfully. Will need very careful costing and piloting.

- **Provide airtime to jobseekers who are active on sayouth.mobi**. The government is well-placed to leverage economies of scale and provide jobseekers with cheaper airtime to support their online job search. We recommend at least R50 per month (median amount spent on job search in our analysis).

- **Run job-application workshops on-platform, using video conferencing technology.** Jobseekers get very limited feedback during the job search process and do not know how to adapt their applications to better signal their skills. Job search workshops, with a focus on CVs, cover letters and interviews, can improve the quality of jobseekers' signals of skills.

- **Facilitate peer to peer support by creating job search clubs.** These job search clubs could match jobseekers based on similarities in career stages, age, educational background, geographical location and/or employment sector. Jobseekers can support each other with the job search process (e.g. developing application resources, practising for interviews) and these clubs may decrease feelings of isolation, depression and low self-esteem, which are exacerbated by unemployment. There is scope to run these clubs online, either using sayouth.mobi or a social media such as WhatsApp.

- **Provide mental health services for jobseekers.** Providing phone or SMS based therapy and subsidising or providing free access to mental health-supporting

[26] Precise costing information is not available for this study.

applications could be amongst affordable ways to offer virtual mental health care.

Intervention and the problem it targets	Evidence
Jobseekers have many competing financial demands and limited means to finance job search. They may not search enough to get jobs.	Job search costs are high in South Africa. Data from NIDS, a sample of 7,000 young jobseekers in Johannesburg and a recent sample of Johannesburg jobseekers suggest that people spend between R127 and R242 per week on job search activities. Of these costs, airtime and data is the largest category, with a median weekly cost of R50. **Cost:** about R50 per jobseeker per month.
Jobseekers struggle to communicate their skills to employers, particularly when they lack work experience.	In Ethiopia, job search workshops increased the quality of job matches (**31 percent more likely to be in formal employment**), but **did not increase employment on average**.[xcvi] These effects were greater for women and those with more present-bias. These workshops had two components: helping participants to make more effective use of their existing signals (job experience, education, etc.); certifying skills that are 'hard to observe' for employers, such as cognitive ability. **Cost:** This intervention had a marginal cost of about US$18.20 per person.[xcvii]
Jobseekers face psychological barriers.	In France, job search clubs with peers rather than one-on-one job search sessions with caseworkers were more effective in helping young people find work.[xcviii] **Job search clubs increased the probability of finding long-term work by 5%.** This effect was concentrated among those who interacted with lower-ability peers; the authors argue that, for these people, the intervention raised their self-esteem. **Cost: detailed costing information is not currently available for this study.**

Jobseekers face psychological barriers.	One review study finds that self-reported happiness is very low in people looking for a job and that depression increases throughout the unemployment spell.[xcix] The review draws on psychological research into behavioural correlates of depression to suggest that this may reduce job search effort. Related work shows that jobseekers with a more internal "locus of control" (a psychological measure showing they believe they are more in control of their life outcomes) search harder and have higher reservation wages than individuals with an external locus of control.[c] Note, these are non-experimental results. Preliminary results from a meta-analysis of mental health interventions in LMICs suggest that both pharmaceutical and psychological interventions improved economic outcomes, including employment.[ci] **Cost:** The median cost of mental health interventions in LMICs is 96 USD per person treated.[cii]

6.4 Potential impacts on job search and employment

6.4.1 Likely impacts of grants on job search and employment

This is a high-level summary of a previous literature review; details of the studies citied are given in Appendix 2: Evidence.

Global evidence shows that cash grant programmes do not reduce whether people are working, hours worked or job search. A very large review study found no effects of cash transfer eligibility on employment rates or hours of work for either men or women.[ciii] The combined sample is large and would be able to pick up even small effects if they existed. The authors provide two explanations of this finding: (1) changes in work status do not affect household eligibility for the programmes, so it is unlikely participants lose their benefits by changing work status and (2) the grants are not large enough to serve as a source of income on their own. These studies are summarised in Table A2.1: Summary of findings from 7 cash transfer programs in the appendix.

The evidence that cash grants have positive employment effects is inconclusive. It is not clear that increased job search translates into higher employment. Three of the ten studies find that receiving grants increases employment by financing job search, rural-to-urban migration or increasing flexible working. Where positive results are found on employment rates, they are again meaningful, but not transformative, falling in an approximate range of between 5 and 10 percent.

Evidence from South Africa shows that cash grants can increase job search, especially for younger, unmarried and poorer women. There is evidence that jobseekers face search costs that prevent them finding work. Cash transfers have been found to finance an increase in job search or labour force participation, even if they go to another adult in the household. A review of ten high-quality studies of the labour force participation impact of the South African CSG and old age pension, finds no good evidence that social transfers discourage labour market activity and some evidence that social transfers may encourage labour market activity, particularly for young, unmarried women and women who live in poorer households. The labour force participation effects are meaningful, but not transformative, falling in an approximate range of between 0 and 10 percent.

In South Africa, there is also inconclusive evidence on the impact of cash grants on employment. Only three of the ten studies included in the review report any evidence of reductions in labour market outcomes. In one of these studies, significant reductions are only found for elderly adults, in another, significant reductions are only identified for men. The evidence of negative labour market outcomes is also weakened by two studies that find that social transfers may

encourage people with worse labour market outcomes to move into the households that receive the transfers. This implies more generally that some studies may detect a negative relationship between the transfer and labour market outcomes even when the overall number of active jobseekers in the economy has not changed. These studies are summarised in Table A2.2: Summary of studies of South African Cash Transfers Effects of Labour Market Outcomes in the appendix.

6.4.2 Likely impacts of job search assistance on job search and employment

Job search assistance programmes have been effective at improving jobseekers' employment outcomes in high income countries. In particular, these programmes have been shown to reduce the time it takes jobseekers to find a job in high-income-country settings. Generally, this is by increasing search-intensity and efficiency.

In developing countries, job search assistance programmes have been shown to increase intermediary outcomes such as job search, interviews and job offers [civ] [cv] [cvi] [cvii]. These effect sizes are in the range of 20 to 40 percent.

There is some evidence to suggest job search assistance programmes have modest effects employment and earnings in developing countries. In a systematic review of recent evidence from developing countries, only 3 of 9 studies find a significant impact on employment (see Table A.3.).[cviii] The average across the studies is a 2.3 percentage point increase in employment. That is, for every 100 people offered vocational training, fewer than 3 will find a job they would not have otherwise found. There is some evidence that job search assistance programmes increase the quality of employment. Studies which have measured both employment and formal employment have generally found slightly larger impacts on formal employment, suggesting that training helps to move workers into the formal sector. The average impact across the studies is 3.6 percentage points. Only 2 out of 9 studies find a statistically significant impact of job search assistance programmes on earnings. The average impact across the studies is a 17 percent increase. These studies are summarised in Table A.2. in the appendix.

In South Africa, three studies offer robust evidence on the impact of job search assistance programmes on employment and earnings, as well as on intermediary outcomes:

1. A RCT about reference letters found that including a reference letter with a job-application (a) increased responses to job applications by 60% (b) increased interviews by 62% (c) had no significant effect on employment for the full sample but increased employment for women by 50%.[27] [cix]

[27] All participants in the study were already active in the labour market. Effects on earnings were not reported.

2. A RCT about skills certification found that including a skills certification report with a job-application (a) did not have a significant effect on job search intensity (b) did not have a significant effect on responses to job application or job offers across all job applications (c) increased interviews arising from applications that used the report by 43% and job offers from applications that used the report by 11% (d) increased employment by 17% (e) increased weekly earnings by 34%, and hourly wages increase by 20%.[28] [cx]

3. A RCT about job search planning tools found that getting jobseekers to complete a weekly action plan for their job search (a) increased the number of applications submitted by 18% (b) increased responses to job applications by 24% (c) increased job offers by 30% (d) increased employment by 26% [cxi]

More research should study whether program participants get jobs at the expense of nonparticipants. Whilst job search assistance programmes may slightly increase net employment by reducing job search frictions, they do not create jobs and so cannot solve structural problems of low-demand for workers. In this case, we would expect to smaller or insignificant effects on unemployment if job search assistance programmes are implemented at a national level, especially if the supply of jobs is limited as in the South African context. There is not much evidence on this question because it requires observation of a significant share of the economy. Evidence from France found that jobseekers in the program area who did not receive the program had worse outcomes, indicating they were displaced from the labour market by their peers who benefited from the programme.[cxii] Moreover, for some programmes, displacement may occur between different groups of jobseekers. For example, skills certification, reference letters and personalised information such as ranking algorithms are potentially only advantageous to higher-skilled workers and might displace lower-skilled workers. As policymakers consider scaling interventions that help with job searches, it is important to understand more about the impacts on jobseekers who do not participate in these programs. It is important to note that the cost-benefit case would be weaker if these interventions caused displacement of other jobseekers.

6.4.3 Combining cash grants and job search assistance

There is very little research about the effects of combining cash grants and job search assistance services. However, **extrapolation from related research suggests that combining jobseeker grants with job search support *might* increase the effectiveness of job search assistance outlined above.** Such combinations have not been directly implemented or studied in developing countries. Existing research showing that (1) "labelling" cash transfers to be used for a specific purpose can direct how they are spent

[28] All participants in the study were already active in the labour market.

even without hard conditions and (2) nudging South African jobseekers to increase job search effort can increase employment.

Given that evidence on active labour market programmes is generally mixed, **it is fundamentally important that add on programmes implemented in combination with cash grants are piloted and evaluated rigorously before being scaled up.**

6.5 Arguments against placing job search related conditions on the grant

We recommend placing as few conditions on access to the grant beyond the targeting criteria as possible.

We argue that the size of the grant is small compared to wages from labour market work, consequently, it is implausible an individual would choose to stop looking for work and choose to subsist on the SRD grant alone. There is no strong evidence that small grants would discourage job search and considerable evidence that they encourage job search.

In the South African context, we argue that government should focus on programmes for the population who are already actively looking for work, rather than spending funds on creating additional incentives to encourage the group of people who are not already searching to become active in the labour market. Services targeted at active jobseekers are likely to have the highest marginal benefit in increasing employment. It is likely that the supply of services will not be sufficient to serve all jobseekers who are already keenly looking for work and there are not enough jobs for them. Money spent on discouraged jobseekers is less likely to yield increased employment than money spent on active jobseekers and should not be a priority above serving those actively searching for work.

Making the grant conditional on job search is likely to reduce the effectiveness of many of the interventions we propose, without meaningfully increasing job search overall. Encouraging people who are not looking for work for good reason to begin searching would dilute the pool of active 69jobseekers on sayouth.mobi. For example, if the grant requires 69jobseekers who are not able to start work, or live far away from where firms are recruiting to apply for jobs (this is the case for more than half a million jobseekers), firms will have to incur more costs to screen the applicants to jobs they post on the platform. This may deter firms from using sayouth.mobi for recruitment.

There is evidence from higher income countries on some benefits of encouraging discouraged jobseekers to look for work but this evidence does not apply well to the South African context. In labour markets where most people who want to work are employed, encouraging more people to search for work can result in increased employment because there are many firms looking to fill vacancies. By contrast, in

South Africa there are many people who are actively looking for work and cannot find jobs.

There is some evidence from high-income countries that monitoring the search behaviour of unemployment benefit recipients without sanctions attached is effective in some studies. A review of the empirical literature on the impact of monitoring and sanctions in the EU and the US suggests a positive impact of monitoring: 5 out of 7 studies report a positive effect of monitoring on job search and employment. Sanctions (e.g. cutting grants if a person is not searching for work) are also found to have some effect on search: the author reviews 12 studies and concludes that all of them find a positive effect on employment. However, in these studies, many of the monitoring methods were high-intensity. Most evidence on job search requirements to receive a cash grant (e.g. a number of applications submitted per week) is from developed countries with a large established network of labour centres. In these settings, monitoring conditions often entailed the grant recipient meeting a job counsellor once a week to report their job search. This would create a very large new administrative burden for labour centres. For more information about the developed-country evidence on the effects monitoring and sanctions on search, employment and/or earnings, please refer to Table A.2.4: A summary of evidence about the impact of monitoring on search, employment and/or earnings 34 in Appendix 2.

Conditions to encourage jobseekers to actually find work are difficult to set, monitor and implement without generating unintended adverse consequences.
One study compares the effect of the French national career guidance programme to a new programme where participants received a monthly cash transfer for a two-year period totalling up to €4,800, conditional on their participation in the French national career guidance program. These conditional cash transfers lead to a significant increase in program participation (which mainly entails meetings with counsellors), and sharply reduced drop-out rates. Jobseekers accessed more vocational training and career building workshops and got more job offers. However, jobseekers did not respond to increased opportunities: there is a significant reduction in employment over the first six months and only a minor increase in income relative to those receiving just the guidance programme. This suggests that **jobseekers may comply narrowly with the conditions attached to the transfer without the combined programme having any effect on employment.**

Conditioning the SRD on job search may encourage people who are currently inactive in the labour market to engage in search but these people would be unlikely to find a job. Table 8 below summarises the distribution of reasons for why unemployed people may be unable to start work in the short term (see Data Appendix 2 for additional information about reasons working-age individuals are not

searching for work). In this table, individuals who report spatial barriers to working, being unable to work for health reasons, being pregnant, being unable to find work that matches their skills, awaiting the season for work, and finally, individuals who are waiting to be recalled to their former job, account for around 2 million people. Flooding the market with people who are searching for work but are not able to take up work may discourage firms from hiring, and in the longer term, discourage jobseekers from searching.

Table 9: summary of reasons individuals are not looking for work

Restricted to those receiving the SRD at the UBPL

Main reason for not trying to find work	Freq.	Pop. (million)	Percent	Cum.
No transport available	2 828	0.0	0.02	0.02
Undergoing training to help find work	9 821	0.0	0.08	0.10
Awaiting the season for work	12 729	0.0	0.10	0.21
Waiting to be recalled to former job	13 632	0.0	0.11	0.32
Retired	4 001	0.0	0.03	0.35
Other, specify	40 425	0.0	0.33	0.68
Lack of money to pay for transport	77 288	0.1	0.63	1.31
Unable to find work requiring his/her skills	69 888	0.1	0.57	1.88
Pregnancy	77 774	0.1	0.63	2.52
Lost hope of finding any kind of work	97 356	0.1	0.79	3.31
Did not want to work	78 882	0.1	0.64	3.96
Unspecified	122 906	0.1	1.00	4.96
Disabled or unable to work	49 278	0.0	0.40	5.36
Too old or young to work	225 951	0.2	1.84	7.21
No jobs available in the area	483 707	0.5	3.95	11.16
Health reasons	276 958	0.3	2.26	13.42
Housewife or homemaker	445 193	0.4	3.63	17.05
Scholar or student	1 147 408	1.1	9.37	26.42
Not applicable, of which	9 012 205	9.0	73.58	100.00
Not in labour force	1 709 741	1.7	19.0	18.97

Informally employed	1 713 265	1.7	19.0	37.98
Actively seeking	5 506 921	5.5	61.1	99.09
Formally employed	82 278	0.1	0.9	100.00
Total	12 248 230	12.2	100.0	

Source: authors' estimates based on the LCS 2014/15 adjusted to 2021 using the QLFS 2015, 2021.

Notes: See Data Appendix 1 for tables of the reasons people are not looking for jobs in the full labour force, and for the SRD under different assumptions.

Appendix 1: Recommendations from OECD and World Bank

Two country-level analyses of the South African social protection system emphasise the important role that the SRD grant plays in providing resources to working-age adults. Both of these analyses are in favour of making the SRD grant permanent in some form. Both analyses point to the importance of providing financial support to jobseekers as a major motivation. Table x summarises the modelling assumptions made in each report.

Table A1.1: Summary of jobseeker's grant models proposed by the World Bank and OECD

Report	Targeting criteria	Assumptions	Number targeted	Core outcomes prioritised	Financing method
World Bank[cxiii]	Actively searching individuals	Making the grant conditional on search status would not shift the number of people searching Cost of monitoring search would be low Grant would be complemented by public works programmes and a package of job search support schemes	3.8 million	Promoting job search, reducing structural unemployment	Not stated. Improved delivery efficiency highlighted as an opportunity to reduce costs
OECD [cxiv]	SRD recipients between Dec 2021 - March 2022		10.5 million	Disposable income, poverty reduction	Spending savings and strengthened public procurement Increasing the VAT rate or broadening the basis of corporate and personal income taxes

Both of these reports emphasise the complementary role of employment creation initiatives, arguing that policies which graduate beneficiaries of the grant into formal, paid employment will reduce the cost of the grant in the long term. However, both reports note that in the short term there is a clear need to provide social assistance to poor working age adults who are currently unemployed and not covered by any other social assistance scheme.

Appendix 2: Evidence

Detailed evidence on likely effects of cash grants on employment and earnings

Cash grants not tied to employment status have no effect on the total amount people work.

Cash transfers do not change the overall number of hours that people work. In many countries, there are widespread perceptions that cash transfers might discourage people from working, but there is little rigorous evidence this occurs in practice.[cxv]

Conditional and unconditional cash transfer programmes. Conditional cash transfer programmes in low- and middle-income countries have not been found to change the amount people work. A review and reanalysis of 7 evaluations of cash transfer programmes in 6 countries with 46,000 adults found no effects of cash transfer eligibility on employment rates or hours of work for either men or women, as presented in Table A1.[cxvi] This is not because the grants have conditions attached to them. In half of the programmes, there were conditions, but these were related to taking particular actions in relation to recipients' children, such as ensuring that the recipient's children attended school and got vaccinated. There were no conditions requiring recipients to work. In addition, two programmes, PAL and Tayssir, were unconditional. These still have no effects on work.

Grants are not large enough to serve as a source of income on their own. The 'transfer consumption ratio' in Table 1 is the percentage of average household spending made up by the transfer, for households receiving the transfer. The transfers in this study made up only between 4 and 20 percent of household expenditure, so households would need to earn other income to cover their expenditure and thus the transfer would be unlikely to discourage work. This would likely hold for any grants offered to the unemployed in South Africa.

We view the studies in Table A1 as providing some guidance for the likely effects of small regular cash grants in the South African context. The Special SRD was of similar size to these other grants, at R350 per month ($25 USD in 2021 terms). This was 19% of the median income of an individual receiving this grant (the median SRD recipient earned R1883 monthly in Feb 2020). 97.5% of employed and self-employed workers (including part-time workers) earned more than the value of the COVID SRD grant in 2019. So, it is still likely that having a job will remain much more desirable than receiving the grant.[29]

[29] The child grant is R440 per child, 42% of the median income of a person receiving the grant (the median recipient earned R1050/month in Feb 2020.

Table A2.1: Summary of findings from 7 cash transfer programs[cxvii]

Country	Program	Transfer Amount Per Month (2017 terms)	Transfer consumption ratio*	Effect on whether worked last week, hours worked
Honduras	Programa de Asignación Familiar - Phase II (PRAF II)	from $4 to $23	4%	3 percentage point decrease in whether worked last week, no effect on hours worked
Morocco	Tayssir	from $8 to $13 per month per child	5%	no effect
Mexico	Progresa	$12.5/month + $8–$30.5/month per child (depends on child grade) +$11-$20.5 grant for school materials per child	20%	no effect
Mexico	Programa de Apoyo Alimentario (PAL)	$13 per month	11.50%	no effect
Philippines	Pantawid Pamilyang Pilipino Program (PPPP)	$11–$30 per month	11%	no effect

Indonesia	Program Keluarga Harapan (PKH)	$44–$161 per year	17.50%	no effect
Nicaragua	Red de Protección Social (RPS)	$224/year + $112/year (school attendance) + $21/child/year	20%	no effect

In South Africa, cash grants appear to promote job search, particularly for young, unmarried and poorer women. Table A.2.2 presents evidence from a review of all good-quality studies of the labour market effects of the South African pension and child support grant. This review finds no good evidence that social transfers discourage labour market activity and some evidence that social transfers may encourage labour market activity, particularly for young, unmarried women and women who live in poorer households. Overall, five studies that find positive labour market impacts of cash grants, predict increases of between 5 and 10 percent in outcomes of interest. Two studies find that being in a household where a grandparent receives a pension increases employment among working age adults in that household, by financing rural-to-urban migration or increasing flex-time working. Cash grants may also enable households to take riskier economic decisions with potentially high returns such as migrate to more economically productive areas. We cannot draw firm conclusions without further studies on this dynamic in South Africa.

There is very limited evidence that cash grants worsen employment outcomes. Multiple studies have asked if South Africa's old age pension or child support grant change employment rates for working-age adults living with pension recipients, either by reducing the incentive to work or financing job search. We view the research on employment effects of the pension as inconclusive. Some studies find that receiving the pension can increase employment by financing rural-to-urban migration[cxviii] or increasing flexible working.[cxix] Other studies find a drop in hours worked by working age adults [cxx] or no effect on labour supply and migration.[cxxi] When people receive the pension, research finds that members of the extended family move into their household, and these adults have characteristics that make them less likely to find work (e.g., they have lower levels of education). We would thus not draw firm conclusions from this work.

Table A2.2: Summary of studies of South African Cash Transfers Effects of Labour Market Outcomes

Grant	Study year	Identification strategy	Subpopulation considered	Effect on labour force participation	Effect on employment
CSG	2011[cxxii]	Modified difference-in-difference	Mothers in their 20's	9% increase	15% increase
			Mothers in their 30's	No significant change	10% increase
			Mothers in their 40's	No significant change	5% increase
			Pensioners	No significant change	9% increase
			Mothers' matric qualification	No significant change	9% increase regardless of whether recipient has a matric
			Mothers' marital status	No significant change	8-9% increase regardless of marital status
			Mothers' household income percentile	No significant change	11% increase for recipients in households with above 50th percentile of household income, 4% increase for recipients in households with below 50th percentile household income
CSG	2007[cxxiii]	Difference-in-differences Effect of being eligible is analysed - this will be a noisy estimate of the true effect of the grant	Mothers	7-14% increase	No significant effect
			Mothers in informal housing (proxy for poverty status)	Stronger effects for informal housing residents	No significant effect
			Mothers in urban/rural household location	Stronger effects for rural	Some positive effects on employment
			Fathers	Weaker effects than for mothers	No significant effect
CSG	2021[cxxiv]	Regression discontinuity	Single mothers	4% increase in labour market activity	No significant effect in long term Small reductions in agricultural work in favour of wage work
			Married mothers	No significant effects	No significant effects
Pension	2009[cxxv]	Panel estimates	Working age men	NA	3.6% Increase for men

					(Primarily due to increase rural urban migration)
			Working age women	NA	2.9 % Increase for women (Primarily due to increase rural urban migration)
Pension	2006[cxxvi]	Regression	Working age African men who are members of three generations of rural households.	No significant effect on Men	NA
			Working age African women who are members of three generations of rural households.	Pension increases probability women migrate to find work.	NA
Pension	2006[cxxvii]	Regression discontinuity	Elderly African men	8.4% decrease for men	7.6% decrease for men
			Elderly African women	12.6% decrease for women	5.7% decrease for women
Pension	2004[cxxviii]	Difference-in-differences	Retired men	No effect	No effect
			Retired women	No effect	No effect
Pension	2003[cxxix]	Regression	Working age African men	Decrease in working hours. The presence of a single pensioner in the household is associated with a decrease of 5.55 work hours per week for working age men in the household.	9.8% decrease in probability of employment per R1000 increase in household pension income.
			Working age African women	Decrease in working hours. The presence of a single pensioner in the household is associated with a decrease of 3.7 work hours per week for working age women in the household.	Insignificant decrease
Pension	2019[cxxx]	Fixed effects, first differences	Working age adults		Decrease Each additional pensioner in the household reduces the probability of salaried employment by 15% for working age adults. (34% decrease in the probability of being self-employed.)
Pension	2014[cxxxi]	Instrumental variable	Working age adults	Increase likelihood that unemployed, inactive family	

	members move into the household.

Table A.2.3. A review of the evidence on vocational training programmes[cxxxii]

						Impacts on:				
Country	**Study**	**Population**	**Sample Size**	**Attrition**	**Time Frame**	**Employment**	**Formal Employment**	**Earnings**	**Formal Earnings**	**Monthly income**	**Cost**
Turkey	Hirshleifer et al. (2016)	Unemployed	5,902	6%	1 year	2.0	2.0	5.8	8.6	US$11.5	US$1700
						[-0.5, 4.4]	[-0.4, 4.4]	[-2.3, 13.8]	[-0.5,17.7]		
		Unemployed		0%	2.5 years	n.r	-0.1	n.r	-0.8	-US$3	
							[-3.3, 1.5]		[-7.9, 6.3]		
Argentina	Alzúa et al. (2016)	Low-income Youth	407	0%	18 months	n.r.	8.0	n.r.	64.9	US$83	US$1722
							[0.7, 15.3]		[17.1, 112.7]		
		Low-income Youth		0%	33 months	n.r.	4.3	n.r.	23.1	US$45	
							[-3.6, 12.1]		[-15.3, 61.5]		
Colombia	Attanasio et al. (2011)	Low-income Youth	4,350	18.5%	14 months	4.5	6.4	11.6	27.1	US$12.8	US$750
						[1.0, 8.0]	[3.2, 9.6]	[4.5, 18.7]	[12.8, 41.3]		
	Attanasio et al. (2015)	Low-income Youth		0%	up to 10 years	n.r.	4.2	n.r.	13.6	US$17.7	
							[1.8, 6.6]		[5.5, 21.8]		
Dominican Republic	Card et al. (2011)	Low-income Youth	1,556	38%	12 months	0.7	2.2	10.8	n.r.	US$10	US$330
						[-4.6, 6.0]	[-2.3, 6.7]	[-4.2, 25.7]			
	Ibarrarán et al. (2014)	Low-income Youth	5,000	20%	18 to 24 months	-1.3	1.8	6.5	n.r.	US$8.5	US$700
						[-4.8, 2.2]	[-0.3, 3.9]	[-4.8, 17.9]			
	Ibarrarán et al. (2015)	Low-income Youth	5,000	34%	6 years	-1.4	2.6	-1.9	n.r.	-US$2.3	US$700
						[-4.4, 1.6]	[-0.5, 5.5]	[-10.0,6.3]			
	Acevedo et al. (2017)	Low-income Youth	2,779	17.6%	3 years	0.7	n.r.	n.r. (a)	n.r.	n.r.	n.r.
						[-4.0, 5.3]					
India	Maitra and Mani (2012)	Low income Women	658	25%	18 months	8.1	n.r.	95.7	n.r.	US$2.4	US$13
						[2.2, 14.0]		[5.6, 186.0]			
Kenya	Honorati (2015)	Low-income Youth	2,100	23%	14 months	5.6	n.r	29.7	n.r.	US$47.5	US$1150
						[0.9, 10.3]		[-2.9, 62.3]			
Malawi	Cho et al. (2013)	Low-income Youth	1,900	46%	4 months	n.r.	n.r.	-19.6	n.r.	-US$5	n.r.
								[-63.9,24.7]			
Peru	Diaz and Rosas (2016)	Low-income Youth	4,509	35%	36 months	1.6	3.8	13.4	n.r.	n.r.	US$420
						[-3.3,6.5]	[0.3, 7.3]	[-17.6, 44.4]			
			7,151	0%	36 months	n.r	4.5	n.r	n.r		
							[-0.1, 9.0]				

Notes:
Timeframe refers to time since the end of the intervention before measuring follow-up outcomes.
n.r. denotes not recorded. Estimates are the Intention-to-Treat estimates reported in different studies.
95 percent confidence intervals shown in parentheses.
(a) no impact on unconditional earnings reported. A negative and statistically significant impact on earnings conditional on working is reported.
Impacts on employment are in terms of percentage points, impacts on earnings in terms of percentage growth relative to control mean.
When study reports results for subgroups only, a weighted average is used to present the overall effect.

Basic income study in Kenya

Rigorous evidence on effects of a long-term basic income is limited in developing countries.[cxxxiii] One ongoing randomised controlled trial in rural Western Kenya is testing the effects of different types of basic income.[cxxxiv] This involves a long-term universal basic income for 12 years. Each adult in villages receiving this programme receives US $0.75 per day for 12 years (R399 per month), an amount that is sufficient to cover most basic needs and is similar to the current amount of the SRD grant in South Africa.

The study finds that people receiving long-term or short-term UBI do not decrease the total hours they work in any group, compared to the control group. This is true even in the group who still have 9 years and 3 months remaining where they receive a basic income every day. This may be because the grants only provide for basic needs. This is consistent with evidence on other cash transfers.

Cash grants may enable people to start businesses

Economic theory suggests that when poor people lack access to credit, they will struggle to borrow to start new economic activities, even if these may yield higher earnings than their current work. Alternatively, they may not feel able to take the risks of starting new activities. Cash grants may provide a source of capital to make investments or provide insurance for poorer individuals to take risks such as purchasing assets or inputs to production, investment in new businesses or education and training. These may allow recipients to shift into economic activities that are more profitable or that have characteristics they prefer (e.g., allowing them greater flexibility or requiring less travel). The evidence on the effect of cash grants on household enterprises is in line with theoretical predictions.

Conditional and unconditional cash transfer programmes

There are some instances where cash transfers lead households to start new non-farm enterprises, but this does not occur in all studies.

A review of seven studies of government unconditional cash grant programmes focused on rural areas in sub-Saharan African countries finds that receiving cash transfers leads to increases in whether households run non-farm enterprises in only two countries.[cxxxv] It had no effects in three countries and decreased enterprise ownership in two countries.

In four further studies of government programmes in Kenya, Zambia, Mexico and Nicaragua, transfers increased whether households operated a non-farm enterprise in two (half of) studies.[cxxxvi]

Basic income study in Kenya

The study of different types of basic income discussed in Basic income study in Kenya finds that all groups receiving different types of basic income show a substantial shift towards self-employment.[30][cxxxvii]

People receiving grants are able to earn higher wages per hour (for the long-term group, about 1 USD PPP per day higher in agricultural work, compared to a control group mean of 5.7 USD PPP, and 4 USD PPP higher in non-agricultural work, compared to a control group mean of 9.92 USD PPP). This could reflect economic growth in the area, which may have increased the profitability of certain activities, or that they are doing more profitable activities. UBI also prevented people from closing existing businesses during an economic downturn.

Cash grants can lead to higher yields for agricultural households

Cash grant recipients produce more agricultural produce, partly because they are more likely to purchase agricultural inputs like seed and fertiliser and agricultural tools.

We focus on a review of seven studies of government unconditional cash grant programmes focused on rural areas in sub-Saharan African countries, Zambia, Malawi, Lesotho, Zimbabwe, Kenya, Ghana and Ethiopia.[cxxxviii]

- The Zambian grant was the most generous transfer for the eligible population, at around 28% of median household consumption expenditure at baseline. Most of the other programs were providing between 20% and 25% of household consumption. Ghana provided 10%.
- In six of seven countries, cash grant recipients increased the amount of total agricultural production. In three, the value of total production also increased.
- In five of seven countries, cash grant recipients are more likely to purchase seed, fertiliser and other inputs for planting. In six of seven countries, cash grant recipients are more likely to have agricultural tools.
- In four of six countries where this was measured, households are able to do less wage labour for others. These are often a “refuge” sector, where poor households work to survive, hedge against agricultural risk, or obtain needed liquidity.

[30]Our thanks to Paul Niehaus, Tavneet Suri and Abhijeet Banerjee for sharing early findings with us.

Cash recipients own more livestock, which likely offers greater food security and acts as a store of value.

- In five of seven countries, cash grant recipients own a larger quantity of livestock. This may measure that households have purchased more livestock, or that they have not needed to sell them when facing shocks. This is not measured, but more cash income may also enable households to purchase ongoing inputs (e.g., feed, medicine) to keep livestock healthy.
- In three of seven studies, the percentage of households owning any livestock increased. This means households were able to enter livestock rearing. Purchasing livestock requires a large capital outlay, for which non-recipient households may struggle to save.
- Livestock produce food directly and can assist with dietary diversity through milk and eggs. They also can act as a store of value enhancing risk-bearing capacity and can aid production by providing draught animal power, transport and/or manure for cropping and fuel.

These effects may be less prevalent in the South African context, where fewer households engage in subsistence agriculture.

- Fewer households in South Africa are engaged in subsistence agriculture. Only 15.3% of households (2.7 million households) in South Africa engaged in agriculture in 2019,[cxxxix] while roughly 50% across Sub-Saharan Africa do.[cxl] This may mean fewer grant recipients use grants for agricultural purposes.
- However, of those engaged in agriculture, a large majority (85%, or 2.2 million) engaged in subsistence-based farming for most or some of their food.[31] These households may see similar benefits from cash grant receipt to other households.
- However, small-scale agriculture is particularly unproductive, and households have been consistently shifting away from these activities. If encouraging small-scale farming is a priority, the government may also need to implement other policy interventions to make the sector more productive, such as providing rural infrastructure, financing options, and building agricultural expertise.[32] Factors such as land degradation and water availability may lower impact for South African farmers.

On the other hand, effects may be larger in South Africa:

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[31] For households engaged in agriculture, both growing food and rearing livestock are common activities: 50% engage in livestock rearing and an additional 37.3% rear poultry; 50.3% produce grains and food crops, while 53.3% produce fruit and vegetable crops.

[32] South Africa Country Profile, New Agriculturalist. Available at: http://www.new-ag.info/en/country/profile.php?a=3071

- Many of these transfers target very vulnerable households. Ethiopia, Ghana, and Kenya explicitly target households with orphans or vulnerable children, and most programs target households that are likely not to be very productive (e.g., elderly, single parents, OVCs being supported by grandparents, or single parents). The Zambian programme was an exception in that it targeted all households with children aged 0-5. Grants which mostly target working age adults might have higher effects.
- Transfers were intended to be paid regularly but in Ghana and Lesotho, delivery was poor. In South Africa, grants are paid regularly.

Table A2.4. Examples of cash transfer programmes in comparable countries, including extensions

Country[cxli]	Pre-pandemic programmes	Emergency programmes	Emergency programme target group	First payment dates	Total cash per new beneficiary (ZAR PPP)[33] [34]	Application process for existing beneficiaries	Application process for new households	Delivery	Total extensions	Latest extension announced	Latest payment dates	Monthly or one time, amount
Brazil	Bolsa Familia: conditional cash. 13 million households	A cash transfer paid over 3 months, and expanding existing cash transfers.	30 million newly targeted households.	April - June	12432 per individual, up to two individuals per household.	Automatic top-up	Households could apply online through the state bank's website.	Cash deposited in any bank account.	2	August[cxlii]	Sept - Dec	Monthly, half of original transfer [cxliii]
Argentina	Cash for pregnant mothers and child allowance.	Increase existing cash transfer programs. New emergency cash transfer program.	9 million new households.	April	9531 per household.	Automatic top-up	Households applied through social security website.	Direct transfer or withdrawal from bank branches.	2	July[cxliv]	Sept[cxlv]	One-time, same as initial transfer
Indonesia [cxlvi]	Program Keluarga Harapan (PKH): conditional	Expand coverage for existing grants. Created new	Expand existing coverage to 10 million		2520 per household	Automatic top-up	Beneficiaries had to apply to receive funds. Rural funds	Direct transfer or withdrawal from				

[33] These amounts are the total payments for the stipulated duration of the program, and are only for new beneficiaries.
[34] Based on 2019 PPP exchange rates from the World Bank. Purchasing power parity (PPP) exchange rates adjust market exchange rate to account for differences in prices across countries. At PPP exchange rates, the same basket of goods should have the same price across the world.

	cash. 9.2 million households.	unconditional transfer for those not already covered. Expanded food vouchers	households. 20 million new households.				distributed through local officials.	bank branches.				
Jordan	Cash transfer programme ran by the National Aid Fund (NAF). 185,000 households (population of 10 million).	Emergency cash transfers	Informal workers, ~200,000 households.		677.95 to 1,314.82 per household per month (depending on household size)	Did not expand for existing beneficiaries	Online registration but using an existing system implemented for regular recipients	E-money accounts and e-wallets, which could be set up remotely.				Monthly

The impact of monitoring on search, employment and/or earnings

In countries where receipt of an unemployment benefit is conditional on compliance with employment and job search related conditions, a range of specific actions are used. Most OECD countries impose obligatory interviews between the jobseeker and an employment counsellor. The frequency of these interviews varies. The Czech Republic, France, Korea, Slovak Republic and the UK require jobseekers to meet with a counsellor at least once a month. Beneficiaries are frequently required to report on their job search effort and are referred to job vacancies. In some countries, such as Australia, Denmark, Sweden and the UK, jobseekers are obliged to participate in re-employment programmes after a certain period of unsuccessful job search to ensure they retain work-relevant human capital.[cxxvii] These strategies are generally light-touch in countries with relatively short-duration unemployment benefits and are more stringent in settings with longer or indefinite-duration unemployment benefits.

The impact of employment and job search conditions does not vary substantially across different groups of jobseekers. The evidence suggests that conditions are at least as effective for disadvantaged groups of jobseekers as for groups that are easy to place in the labour market. Job search assistance has been especially helpful in terms of re-employment earnings for disadvantaged groups.[cxxviii]

Table A.2.4: A summary of evidence about the impact of monitoring on search, employment and/or earnings[35] [cxlvii]

Country, date	Intervention	Impact
United States, 1994 [cxxix]	(i) Telling benefit claimants that their reported contacts would be verified with the employer, and increasing the number of and (ii) increased required	• Reduces benefit duration by 10% • No effect on earnings

[35] Rows without a citation are adapted from McVicar (2020)

	employer contacts from two to four per week (RCT)	
United States, 1984-85 [cxxx]	Monitoring intensity (RCT)	• No significant effect on benefit duration
United Kingdom, 1989 [cxxxi]	Restart Programme: 20 minute interviews with employment counsellors after 6 months of unemployment (RCT)	• Reduced the male unemployment rate five years later by 6 percentage points (a 15% to 20% reduction in the actual numbers unemployed) • No effect for women
United Kingdom, 1999-2005	Withdrawal of monitoring (Natural Experiment)	• Increases benefit duration by 10-16% as a result of reduced job-entry and reduced switching to other benefits
United Kingdom, 1997-2005	Withdrawal of monitoring for 8 months	• Increases the stock of people receiving benefit

	(Natural Experiment)	by 8-12% as a result of reduced outflows
France, 1999 [cxxxii]	"Personalised Action Plan for a New Start toward Employment" -- involved interviews with youth after six months of unemployment and with adults after 12 months of unemployment. (RDD)	• No effect for youth • Reduced the probability that adults would still be jobseekers four months later by 6%
Hungary, 2003	Increased monitoring intensity (RCT)	• No significant effect on benefit duration or job entry, on average • Increases to entry rate for women aged 30+ by 50% • Size of effect is negatively correlated with local unemployment rate

Belgium, 2001-06	Tougher monitoring regime phased in by age group (RDD)	• Increase in job entry within 8 months by 23% (marginally statistically significant) • No effect on labour force withdrawal
Belgium, 2006 [cxxxiii]	Tougher monitoring regime phased in by age group (RDD)	• The job search monitoring program has had a large impact on the transition rate from unemployment to disability • It has no impact on the transition rate to employment or inactivity.
Sweden, 2011-15	Tougher monitoring (Natural Experiment)	• 21% increase in the job entry rate for male long-term unemployed • No effect for women

Austria, 1999 [cxxxiv]	Job search training programme - training for eight days spread over six weeks (Non-experimental)	• Estimated to reduce the remaining duration of the unemployment spell by about one third
Netherlands, 1998 [cxxxv]	A monitoring scheme for short-term unemployed workers with good labour market prospects (RCT)	• The results do not provide evidence that counselling and monitoring affect the exit rate to work. • Monitoring leads to substitution from informal search methods to formal methods.

Comparative experience on means-testing

Comparative experience suggests South African targeting is a considerable improvement on some other programmes. Other programmes also face considerable difficulties in targeting:

- A cash transfer programme in Albania that supports about 20 per cent of the population, targeted urban households with no other source of income, and rural households with small landholdings. These tests accurately identified the poor, with low leakages to the non- poor – only 10.1 per cent of the richest 80 per cent of households received NE assistance. However, exclusion errors in implementation were high, with 62.6 per cent of households in the poorest quintile not receiving NE benefits. This was due to a 25 per cent cut in the government's budget allocation to NE, which imposed a hard budget constraint on local communes that administered the programme and resulted in substantial exclusion of eligible households.[cxlviii]
- In China, the Minimum Livelihood Guarantee Scheme fails to reach 71 per cent of poor households, while 40 per cent of recipients have incomes above the income threshold for eligibility.[cxlix]
- In the Krygyz Republic, two-thirds (69%) of households in the poorest quintile do not receive the Unified Monthly Benefit, and more than half the programme beneficiaries are from wealthier quintiles.[cl]
- In Azerbaijan, 88.5 per cent of households in the poorest quintile do not receive Children Benefits – none at all in the poorest decile (many of these households have no resident children) – while 86.3 per cent of beneficiaries come from wealthier quintiles.[cli]

Appendix 3: More information on Bolsa Familia household grants

Bolsa Familia reached roughly 48 million beneficiaries and transfers over US$10 billion a year in 2020.[cliii] The programme is ending this year. It is widely recognized for high rates of targeting of poor households and low rates of inclusion of households who are ineligible. [cliii]

The Unified Registry (CadÚnico) is a key tool employed for targeting and implementing the programme. This is used by the government to determine which families and individuals are eligible for 30 different government- sponsored social service programs.[cliv]

Eligibility: The main indicator for targeting the programme is families' self-declared per capita income. A household is considered poor if their disposable income is less than a given monetary value - the poverty line. Families receive benefits depending on if their income is below a poverty line.

In 2010, an adjustment was made where h[clv],[clvi,clvii]

Process of registration and verification: [clviii]

- There are surveys of households every two years to estimate the rough number of households in total and each municipality who should be eligible. Municipalities are allocated quotas of the number of eligible households they should register.
- Municipalities are instructed to register low-income households. These are households who fit the Unified Registry's 'broader profile' i.e. per capita income of up to 1⁄2 minimum salary or a total family income of up to 3 minimum salaries. The CadÚnico contains roughly double the number of households who actually receive a Bolsa Familia grant.[clix]
- Households complete a lengthy questionnaire, the 'green book', a lengthy questionnaire (the "green book"), including household income; information about each family member such as education levels and employment status; the number of children; housing characteristics and family expenses.[clx]
- In addition, the head of the household (for the purposes of registering for social programs) creates a file by visiting a Reference Center for Social Assistance (CRAS). Their ID and fingerprints are verified. To try to ensure access, CRAS centres often dispatch social workers to poorer or distant neighborhoods to directly register families for the registry.[clxi] There is considerable variation in how each municipality implements and manages the programme, in particular how they manage social workers to enrol households and monitor conditionalities.

- The Federal Mortgage Bank (Caixa Econômica Federal - CAIXA) consolidates and manages the data and assigns identity numbers. Families are selected as beneficiaries of the grants by the ministry via the CAIXA computer system. Since 2005, this income is verified against verified against other federal administrative records.[clxii] This attempts to pick up signs of omission or underdeclaration of income. Databases include the Annual Report of Social Information (RAIS), an employer-informed database on formal-sector workers from the public and private sectors that includes individualised information on employee wages. This is similar to the UIF data; benefits data on other benefits; and death notification data.
- There is then a review to update the registration data of beneficiary families that have not been updated for more than 24 months. Families with income above the poverty line may have their benefits interrupted.

Delivery: The Bolsa Família (BFP) cash transfer is delivered monthly through an electronic payment system operated by the Caixa bank. Beneficiaries receive a BFP bank card upon enrollment in the program. The card is used to withdraw funds from Caixa ATMs, bank branches and lotteria houses throughout Brazil.[36]

Excerpts on historical difficulties in setting up Bolsa Familia: in particularly the CadÚnico and targeting process.

"During the initial implementation of the CadÚnico in 2003, the quality of household data in the registry was very poor. The CadÚnico was not updated regularly, there was a lot of missing data, and the Ministry of Social Development (MDS) was unable to verify the accuracy of reported information. Thus in 2005, the MDS initiated a major push to improve the CadÚnico, to "clean" the existing database, and to put into place new mechanisms to ensure the continual updating of household information into the future. Municipalities were incentivized (with fiscal resources) to carry out this federal initiative. According to MDS officials, 85% of the current administrative work on the CadÚnico is spent on updating and verifying the database, while the remaining 15% is dedicated to enrolling new families.[clxiii]

"Monitoring BFP recipients to ensure that health and education conditionalities are being met is also a municipal responsibility. Prior to 2006, there was no comprehensive monitoring system in place. As a result, during the early days of the BFP, data reporting on health and education conditionalities was spare and inconsistent. Then, only 40% of BFP beneficiaries were monitored to ensure that health and education conditionalities were being met. This has improved since 2006,

[36] In 2015, the MDS and Caixa introduced the BFP mobile app, a beneficiary-facing app which allows BFP beneficiaries access to their account, updates, conditionalities, and other important sources of information relating to their program status. Prior to the introduction of this app, BFP enrollees had to present themselves in-person at a government office to access their account. Wong et al. 2016.

however, largely due to municipal efforts to increase their capacity to accurately monitor and report on whether individual households are meeting the BFP health and education conditionalities. [clxiv]

“Particularly, in its early years, the PBF faced criticism due to the relatively inefficient control of conditioning factors. Decentralised management meant that beneficiaries were not registered consistently and that data might vary across locations.. This topic was a particular media concern, accounting for most of the sceptical coverage between 2004 and 2006, which focused on false inclusion and benefit fraud.” [clxv]

“From 2015-2018, the World Bank and ministry ran a second project, costing US$22.5 million, to (i) to train and provide technical assistance to state and municipalities to support the use of Cadastro Único as the main mechanism for selecting BFP’s target population; (ii) to create municipal- and state-level delivery units to support BFP design and monitoring and to interact with social service providers, including transfer of dedicated resources to serve the BF population; and (iii) to configure Cadastro Único to allow multiple public agencies to select beneficiaries from its database of low-income families.[clxvi]

Data Appendix 1: Summary of reasons for not looking for work

Main reason for not trying to find work	Working-age population		Recipients of SRD (R3731 ceiling)		Recipients of SRD (R1335 ceiling)	
	Pop (million)	Percent	Pop (million)	Percent	Pop (million)	Percent
No transport available	0.0	0.0	0.0	0.0	0.0	0.0
Undergoing training to help find work	0.0	0.1	0.0	0.1	0.0	0.1
Awaiting the season for work	0.0	0.1	0.0	0.1	0.0	0.1
Waiting to be recalled to former job	0.0	0.1	0.0	0.1	0.0	0.1
Retired	0.0	0.1	0.0	0.1	0.0	0.0
Other, specify	0.1	0.2	0.0	0.3	0.0	0.3
Lack of money to pay for transport	0.1	0.3	0.1	0.5	0.1	0.6
Unable to find work requiring his/her skills	0.1	0.3	0.1	0.5	0.1	0.6
Pregnancy	0.1	0.3	0.1	0.5	0.1	0.6
Lost hope of finding any kind of work	0.1	0.4	0.1	0.6	0.1	0.8
Did not want to work	0.1	0.4	0.1	0.6	0.1	0.6
Unspecified	0.3	0.8	0.2	1.0	0.1	1.0
Disabled or unable to work	0.4	1.2	0.1	0.5	0.0	0.4
Too old or young to work	0.6	1.6	0.3	1.7	0.2	1.8
No jobs available in the area	0.7	2.0	0.6	3.6	0.5	3.9
Health reasons	0.8	2.5	0.3	2.0	0.3	2.3
Housewife or homemaker	0.8	2.5	0.6	3.5	0.4	3.6
Scholar or student	2.1	6.1	1.5	8.7	1.1	9.4
Not applicable, of which	27.6	81.1	13.2	75.4	9.0	73.6
Not in labour force	2.6	7.7	2.2	12.5	2.2	17.9
Informally employed	5.7	16.9	3.7	21.4	3.7	30.5
Actively seeking	8.8	25.8	7.2	40.9	7.2	58.4
Formally employed	10.4	30.7	0.1	0.6	0.1	0.9
Total	34.0	100.0	17.5	100.0	12.2	100.0

Author's estimates based on LCS 2014/15, updated to 2021 using QLFS 2015, 2021
Notes: Restricted to double-means-test scenario, which we consider to most accurately represent the current SRD.

Data Appendix 2: Updating LCS 2014/15 to 2021[37]

This Appendix contains a brief description of the data method used in this memo and some robustness checks.

The primary challenge we faced in doing this analysis is that the datasets available for household income analysis in 2021 are well out of date, and most relevantly are all pre-pandemic. In this paper, we use the Living Conditions Survey (LCS) collected in 2014/15 as it has the most detailed disaggregation of income and expenditure, is the official dataset used to calculate the poverty statistics, and it feeds into the model generated for the 2014/15 CEQ Assessment[clxvii]. However, we compare against results in the National Income Dynamics Survey (NIDS) collected in 2017 to test for robustness.

We update demographic and employment variables to reflect the COVID-19 employment loss. We do this in three steps. Firstly, we forecast income to pre-pandemic levels using per capita growth in GDP. Secondly, we reweight the dataset to a) match 2020 demographics, disaggregated by race, age, gender and province, and b) match the administrative records on the taxable income distribution. Finally, we use the Quarterly Labour Force Survey (QLFS) to calculate the change in employment from 2015 Q1 to 2020 Q1, and from 2020 Q1 to 2021 Q1, and implement these changes in the LCS dataset by randomly shocking certain individuals from employment to unemployment, based on a set of demographic and employment characteristics.

There are many assumptions built into this updating process. We test for implausible deviations and alternative assumptions using other datasets, but there is unavoidably some uncertainty. Further details of the data construction, robustness tests and illustrations of their use will be available in a forthcoming working paper.

Income and consumption update

Following Younger et. al (2020), we inflate the Statistics South Africa (Stats SA) consumption-based welfare aggregate from 2015 using per capita growth in GDP to pre-pandemic 2019 levels.[38] This results in an increase in 2019 consumption expenditures of 17 per cent. We then calculate shares of reported income for each component of income (remittances, royalties, annuities, alimony, rent, farm, interest,

[37] This Appendix is taken almost directly from Goldman et al. (2021).

[38] Our process differs in that we use nominal, rather than real growth, and we do not implement the 85% pass-through.

dividends, shares, unit trusts and pension income) and multiply that by the Stats SA welfare aggregate. We use these new income components to recalculate gross taxable income and earnings in the dataset.

The result is a 2.3 per cent decline in Disposable household income from pre- to mid-pandemic in the LCS, compared to a 2.0 per cent decline in GDP in the administrative records, and a 4.9 per cent decline in NIDS, compared to a 1.1 per cent decline in GNI in the administrative records.[39]

Table D2.1: Income update validation

Statistic / aggregate	2014/15 (R)	2019/20 (R)	Percentage change	2020/21 (R)	Percentage change
		LCS			
GDP	73 690	86 375	17.2	84 606	-2.0
Disposable income (LCS)	41 175	47 763	16.0	46 675	-2.3
		NIDS			
GNI	79 866	83 926	5.08	83 007	-1.1
Disposable income (NIDS)	49 646	52 679	6.1	50 094	-4.9

Source: authors' calculations based on LCS 2014/15, NIDS 2017.

Demographic updating

We update the demographic characteristics of the LCS 2015 sample to match the Statistics South Africa (2020) mid-year population estimates by age, gender, race and province totals. We also match the proportions of taxpayers by income bracket with the tax records (National Treasury, 2020). The process consists of re-weighting the sample, as outlined in Wittenberg (2008), using Wittenberg's 'maxentropy' programme in Stata.

Employment updating

We use the Quarterly Labour Force Survey as the benchmark indicator of the state of the labour market. We calculate changes in QLFS employment between 2015q1 and 2020q1, and between 2020q1 and 2021q1, by demographic (age and education) and employment (informal vs. formal sector) cells. We then match these changes in the LCS by changing the employment status of a randomly selected proportion of individuals in each cell, until the percentage employment change in each cell matches the QLFS. For individuals whose employment status changes from not employed to employed, we assign the median earnings from the relevant employment cell.

[39] Note that we use GDP in the LCS, because we begin by updating the welfare aggregate, based on household consumption, whereas we use GNI in NIDS, because we update the Disposable income aggregate, based on household income.

Comparisons to other datasets

We use the LCS for this project for two reasons: i) it is the official dataset used to calculate poverty and inequality statistics, and ii) it is the dataset underlying the South African CEQ Assessment. However, the National Income Dynamics Survey of 2017 (NIDS) has the advantage over LCS of containing detail on sector and occupation data,[40] as well as broad informality (e.g. informal employment in the formal sector). It is also more recent. We therefore perform a similar updating process on the (NIDS) with these additional characteristics to create finer matches with the QLFS data, and compare the results.

We also compare to the SA-MOD dataset created by Michael Noble and Gemma Wright. This dataset uses NIDS 2017 and updates by *reweighting* demographic and employment characteristics, in contrast to our employment updating process which adds and subtracts earnings income from individuals as we shift their employment status. We chose the latter approach because it has the benefit of not assuming that individuals who become unemployed during the pandemic live in households which resemble those of individuals who were unemployed before the pandemic. A similar method is used by the CEQ Institute to measure the impact of the lockdown on poverty and inequality in various countries (see, for example, Younger et. al. (2020)).

Summary statistics of employment proportions

We present statistics of employment, for totals and by category, for our main dataset (LCS), the reference dataset (QLFS), as well as the robustness datasets (NIDS and SAMOD). The population totals are very similar in all of these for the updated period, at about 34 million.

Employment in the household surveys is generally larger than employment as recorded in the QLFS. While QLFS suggests there were about 15 million employed in 2015 and 15.8 million employed in 2017, the LCS suggests this was closer to 16.3 million in 2015 and the NIDS suggests a figure of 17.5 million in 2017 (Table 13).

Table D2.2: Employed individuals, LCS, NIDS, QLFS

	Employed individuals (millions)	
Dataset	**Household survey**	**QLFS**
LCS (2015)	16.3	15.0

[40] The LCS has some information on sector and occupation, but it is sparse, and in an open-response format, which we were not able to make use of within the timeframes of this project. The matching process with the QLFS could be improved in the future, however, by classifying these variables using the additional detail provided in the QLFS.

NIDS (2017)	17.5	15.8

Source: authors' calculations based on LCS 2014/15, NIDS 2017, QLFS 2015 Q1, and QLFS 2017 Q1.

Employment in the SA-MOD dataset (based on the NIDS survey) is closest to employment in the QLFS. Given that SAMOD is adjusted to match the QLFS, rather than applies the change in employment in the QLFS to the change in the survey, this is unsurprising. In 2021 Q1, QLFS employment was 14.5 million, compared to 15.8 million in the LCS dataset post-adjustment, 15.3 million in NIDS, and 14.2 million in SAMOD (Table 14).

Table D2.3: Employed individuals post-adjustment, LCS, NIDS, QLFS, SA-MOD

Dataset		Employed (millions)
QLFS 2021 Q1		14.5
Post-adjustment	LCS	15.8
	NIDS	15.3
	SA-MOD	14.2

Source: authors' calculations based on LCS 2014/15, NIDS 2017, QLFS 2015 Q1, QLFS 2017 Q1, SAMOD.

Correspondingly, the proportions employed by each category (sex, age, race, education, rural, informality status) in the adjusted LCS and NIDS are generally higher than in QLFS and SA-MOD. Note that the sparser matching of the LCS does over-estimate the employment drop for some categories, such as the White population group, which while likely not a problem for the analysis of poverty undertaken in this paper, does preclude more granular analysis by race.

Table D2.4: Proportion employed by sex, age, race, education, geographical area, informal status

	QLFS			LCS		NIDS		SAMOD
Year	2015	2020	2021	2015	2021	2017	2021	2020
Stats								
Total population (millions)	31.3	33.9	34.4	30.7	34.2	32.4	34.2	34.1
Total employment (millions)	15.0	15.9	14.6	16.3	15.8	17.5	15.6	14.2
Employment rate (per cent)	48.1	46.8	42.4	53.0	46.3	54.1	45.7	41.8
Sex								
Male	54.7	52.5	47.6	59.2	51.3	62.1	52.5	49.8
Female	41.7	41.2	37.2	47.0	41.5	46.3	39.0	34.0
Age								
18-24	19.3	15.8	11.0	28.1	20.5	27.4	18.1	14.2
25-34	51.2	46.7	41.0	54.5	41.8	60.5	50.2	45.1
35-49	62.9	61.9	57.6	67.2	61.6	65.3	56.6	53.2
50-59	54.5	56.1	52.5	60.1	55.5	53.5	47.0	43.9
Race								
White	69.7	70.0	68.7	77.4	67.0	65.6	63.4	53.1
Non-White	46.1	45.0	40.4	50.8	44.7	53.1	44.2	39.1
Education								
Less than matric	40.8	39.5	34.6	44.1	37.6	45.3	34.8	46.8
Matric	51.2	47.6	42.4	58.5	49.1	54.9	41.8	1.8
Tertiary	79.7	75.2	74.7	83.4	77.8	75.3	75.6	10.0
Geographical area								
Rural	36.1	35.7	32.7	37.4	33.4	43.0	37.6	n.a.
Urban	54.0	51.8	46.8	60.2	52.3	59.1	49.4	n.a.
Informal								
Sector	12.0	12.4	10.6	17.3	15.8	n.a.	n.a.	n.a.
Broad	13.8	13.5	10.4	n.a.	n.a.	17.2	11.8	3.6

Source: authors' calculations based on LCS 2014/15, NIDS 2017, QLFS 2015 Q1, QLFS 2017 Q1, SAMOD.

Summary statistics of poverty and inequality

The increase in poverty due to COVID-19 employment loss is higher in NIDS than in LCS, at all poverty lines. At the FPL, poverty increases in the LCS by 3 percentage points, versus 4.5 percentage points in the NIDS. This is to be expected given the percentage reduction in income of 4.9 in NIDS versus 2.3 in LCS from 2019/20 to 2020/21. The SAMOD dataset's poverty increase is higher still, given that it is matched to QLFS with its lower employment rates. Finally, inequality as measured by the Gini increases slightly across both LCS and NIDS.

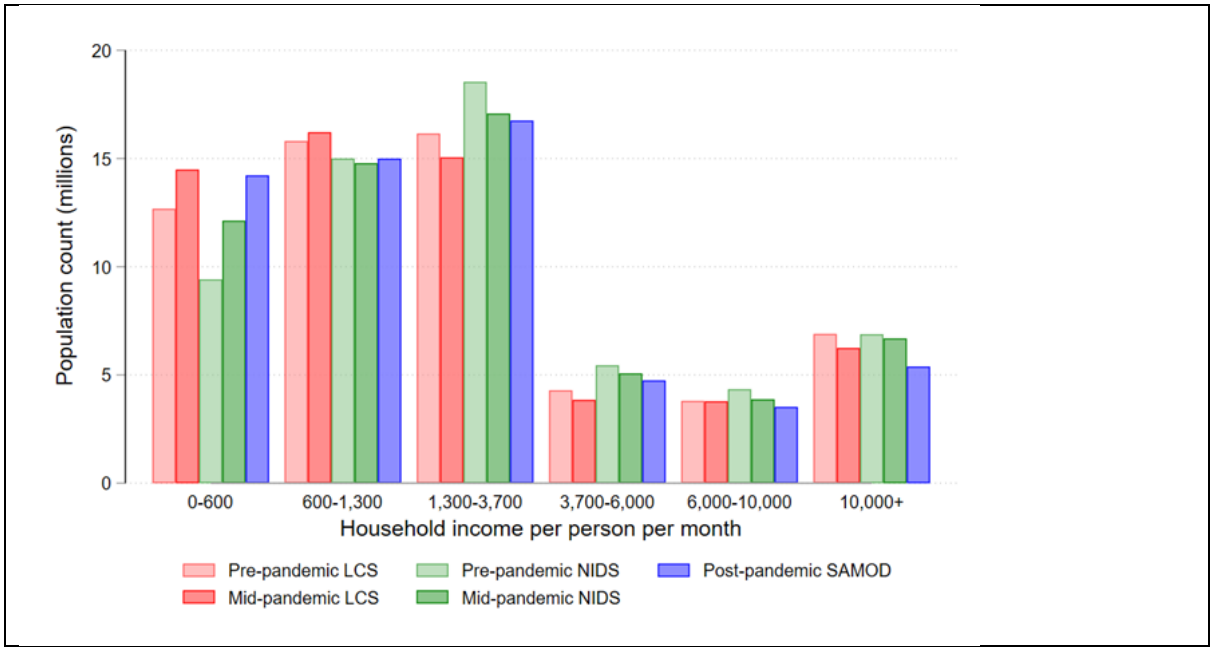
Table D2.5: Poverty and inequality

	LCS		NIDS		SAMOD
	2015	2021	2017	2021	2020
			FPL		
Headcount (%)	22.2	25.3	16.7	21.7	24.6
Gap (%)	9.2	10.2	5.3	8.9	11.8
			LBPL		
Headcount (%)	33.7	37.44	28.4	33.3	36.7
Gap (%)	14.9	16.59	10.6	14.5	17.5
			UBPL		
Headcount (%)	48.7	52.4	42	46.1	50.1
Gap (%)	23.8	26.24	18.9	23	26.2
			Inequality		
Gini coefficient	68.7	68.34	66.2	65.9	68.3

Source: authors' calculations based on LCS 2014/15, NIDS 2017, QLFS 2015 Q1, QLFS 2017 Q1, SAMOD.

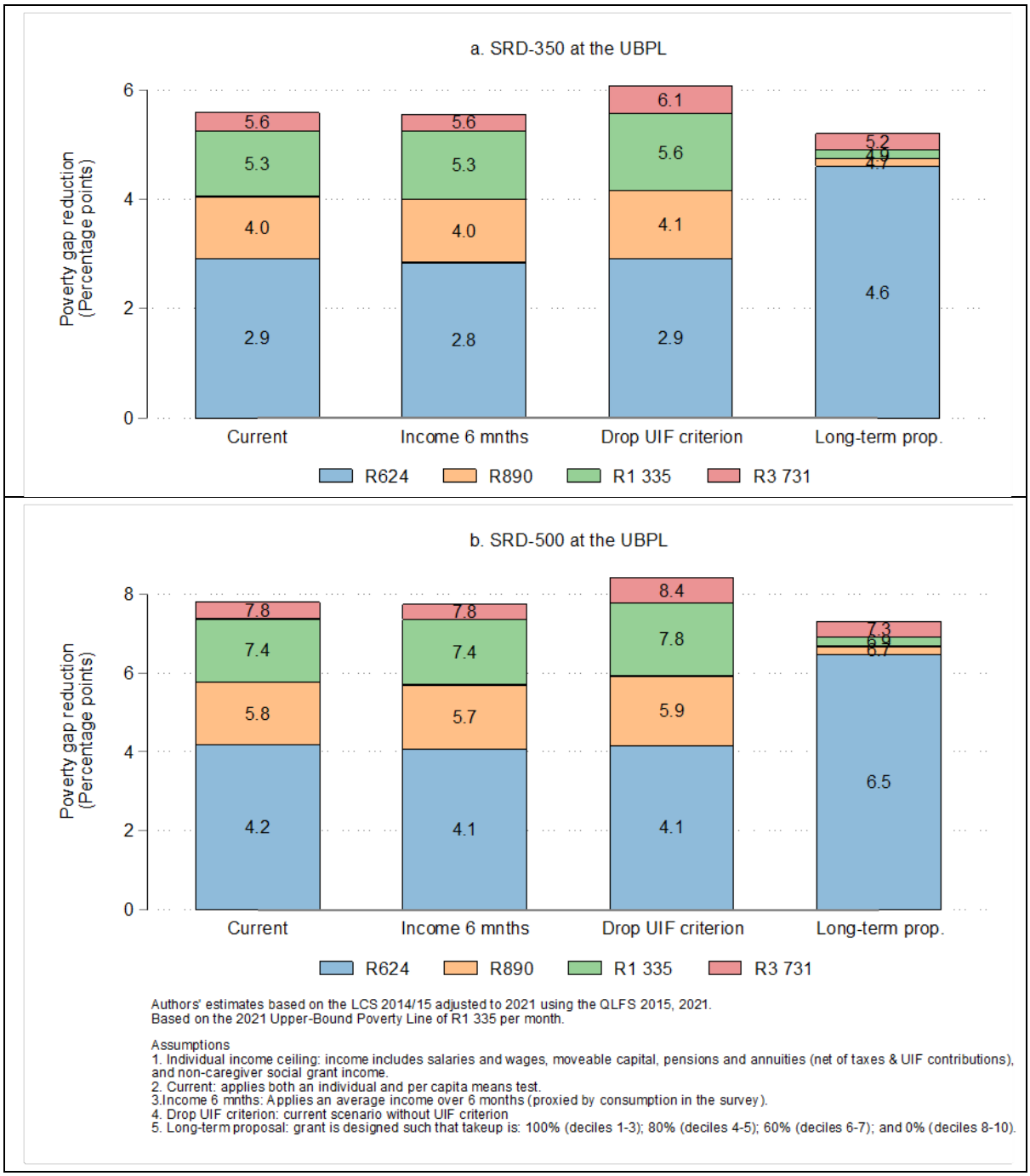
Examining the distributions of per capita household income in the original and adjusted surveys for LCS and NIDS, and for SAMOD, we find that the adjusted datasets all have broadly similar distributions, and that the LCS and NIDS have more individuals in the poorer income categories after the employment adjustment. Figure A2.6 shows the distribution of household income per person across various brackets, before and after the simulated employment changes for NIDS and LCS (and after for SAMOD). For example, the light-shaded red shows the number of household members in that income bracket in LCS before the employment change, and the darker red shows the number after the employment shock. As expected, there is a large increase in both LCS and NIDS in the lowest bracket, before versus after the employment shock, and there is a correspondingly large drop in the number of people earning between 1,300 and 3,700 for LCS and NIDS. This is due to large net employment losses shifting households down the income distribution.

Figure A2.6: Household income



Source: authors' calculations based on LCS 2014/15, NIDS 2017, SAMOD.

Data Appendix 3: Poverty gap impacts



Authors' estimates based on the LCS 2014/15 adjusted to 2021 using the QLFS 2015, 2021.
Based on the 2021 Upper-Bound Poverty Line of R1 335 per month.

Assumptions
1. Individual income ceiling: income includes salaries and wages, moveable capital, pensions and annuities (net of taxes & UIF contributions), and non-caregiver social grant income.
2. Current: applies both an individual and per capita means test.
3.Income 6 mnths: Applies an average income over 6 months (proxied by consumption in the survey).
4. Drop UIF criterion: current scenario without UIF criterion
5. Long-term proposal: grant is designed such that takeup is: 100% (deciles 1-3); 80% (deciles 4-5); 60% (deciles 6-7); and 0% (deciles 8-10).

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