



WAVE 2

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

Labour market dynamics in South Africa in the time of COVID-19: Evidence from Waves 1 and 2 of the NIDS-CRAM survey

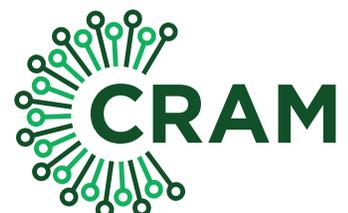
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Labour market dynamics in South Africa in the time of COVID-19: Evidence from Waves 1 and 2 of the NIDS-CRAM survey¹

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Abstract

This paper is an update to Ranchhod and Daniels (2020). It uses Wave 2 of NIDS-CRAM to conduct an evaluation of the state of the South African labour market in June 2020, when the country was in Stage 3 of the national lockdown. We compare these outcomes to corresponding outcomes from April 2020, when the country was in Stage 5 of lockdown, as well as against a pre-lockdown baseline of February 2020. In our first paper, we reported that a major new feature of the South African labour market associated with the lockdown was the introduction of a large number of “furloughed workers”. These are individuals who retain an employment relationship with their employers, but receive either less pay or no payment at all, due to the impossibility of working in certain occupations and industries that are prohibited from trading under lockdown regulations.

The findings from Wave 2 suggest that while some recovery of the South African labour market has taken place between April and June, we are still a long way off from the pre-lockdown levels of employment that were observed in February. In addition, there is also an extremely high degree of churning in the labour market between April and June. These net changes remain inequality-enhancing rather than inequality-reducing. These results are somewhat understandable given that Statistics South Africa estimated in September 2020 that GDP in the second quarter of 2020 had reduced significantly. This paper therefore makes a timely contribution to our understanding of the unfolding labour market impacts of the pandemic and lockdowns as we chart a path towards improving the resilience of the economy.

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Executive Summary

In this paper, we updated our original study on labour market dynamics in the time of Covid-19 in South Africa, that was based on Wave 1 of the NIDS-CRAM data. This update includes additional data from Wave 2 of the same survey, and extends the time period of observation by two months, from February to June. This period is also important as it coincides with a partial relaxation of the national lockdown, from Stage 5 in April to Stage 3 in June.

Our primary findings are that the proportion of adults who were employed stabilized between April and June, at about 48%. This was still between 8 and 9 percentage points below the level observed in February before the lockdowns were implemented.

Despite the stability in the overall proportion of people with employment, we do observe a significant decrease between April and June in the fraction of people who were furloughed. The fraction of people who were either temporarily absent from work, or reporting both zero hours and zero earnings, decreased from 10.3 percentage points to 5.3 percentage points. This was a welcome development which coincided with the relaxation of restrictions that accompanied the shift from Stage 5 to Stage 3 of the lockdown.

A less positive development between Wave 1 and Wave 2, however, was that almost 25% of the people who were furloughed in Wave 1 report not having a job any longer by Wave 2. There is thus a significant variation in the experiences of people who were furloughed. More generally, we find a substantial amount of churning in the labour market, with about 23% of people who reported being employed in April being either furloughed or not employed by June. On the other hand, about 15% of people who were not employed in April had found employment by June.

Some of this rapid churning may well be reflecting measurement error in terms of reporting, but some of it may be real and thus reflective of a substantial and rapid restructuring of the South African labour market. With more waves of data in NIDS-CRAM we will be in a better position to separate these competing but not mutually exclusive explanations.

A final point worth noting relates to something that we documented in our previous paper. The changes that were manifest between February and April were clearly inequality enhancing. Less skilled workers and low-wage earners were more likely to lose their jobs or be furloughed during the lockdown. This pattern has been partly reversed between April and June. While the changes reduce inequality in the labour market between April and June, they are not large enough to offset the changes observed between February and April, with the net result being that labour market inequality in June is still significantly higher than it was in February.

1. Introduction

This paper is an update to Ranchhod and Daniels (2020), which used Wave 1 of the NIDS-CRAM dataset to understand the socio-economic impacts of the lockdown associated with the State of Disaster that was declared by the South African government in March 2020, in response to the rise of infections of Covid-19 in the country. The release of Wave 2 of NIDS-CRAM now enables us to evaluate the labour market at three moments in time in 2020: (1) the pre-COVID 19 era in February, which we treat as a baseline; (2) the most stringent lockdown level, i.e. Stage 5, in April; and Stage 3 of lockdown in June. The Wave 1 NIDS-CRAM study provided us with the first broadly nationally representative dataset to understand the impact of the State of Disaster (see Ardington, 2020; Kerr et al, 2020). At the time of writing, Wave 2 of NIDS-CRAM is now the only longitudinal study that allows us to track key labour market outcomes and transitions associated with the change in lockdown states. As such, it is a very important resource to enable evidence-based policy making.

All of the restrictions on individual mobility and business activity associated with the national lockdowns have a direct impact on people's employment prospects. Businesses are temporarily closed, and some people are not allowed to physically return to their usual place of employment. As we pointed out in our first paper, the immediate and direct consequences may well be smaller (or less harmful) than the indirect consequences over the long run, if demand falls and global trade and supply chains become strained. These are therefore questions that may shape our economy for a long time to come. This particular wave of NIDS-CRAM (2020) allows us to focus on the short run dynamics which are both timeous and important.

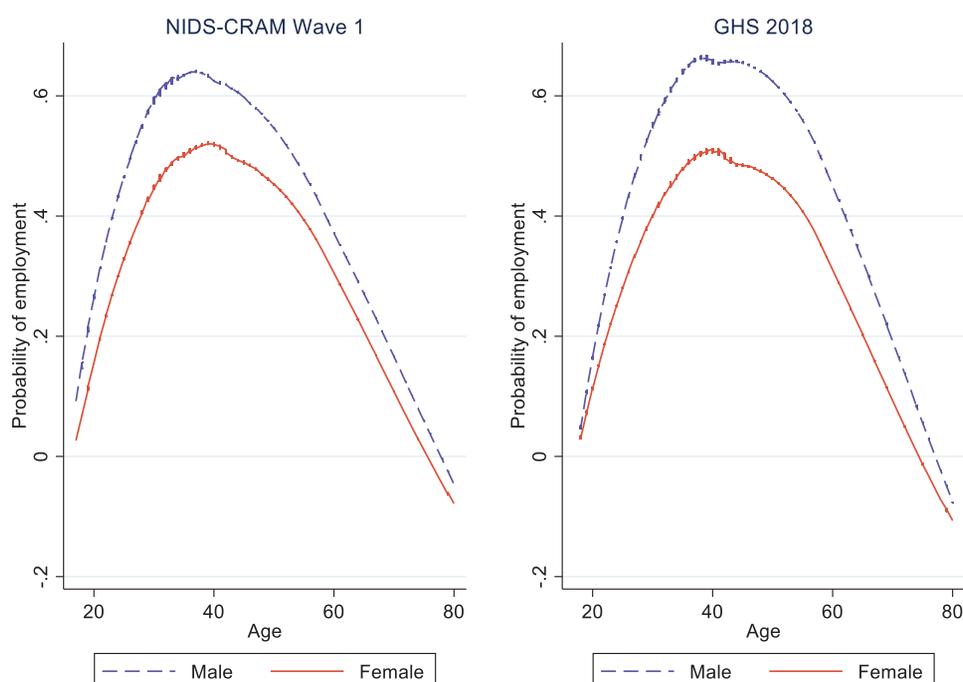
The remainder of this paper is structured as follows. In Section 2, we provide a brief discussion on the appropriateness of the NIDS-CRAM dataset for the subsequent analyses. Section 3 describes the data and Section 4 describes the methods that we employ in this paper to analyse the data. Our main results are presented in Section 5. We conclude with a summarizing discussion in Section 6.

2. Data Quality

When analyzing transitions between labour market states, it is important to establish whether the data utilized reflect national trends appropriately or not. We therefore provide some evidence to show the probability of employment in NIDS-CRAM Wave 1, compared to a nationally representative large-scale household survey, the General Household Survey (GHS, 2018).

Figure 1 presents non-parametric estimates of the probability of employment by age and sex for NIDS-CRAM and the GHS. Despite differences in the level of employment between the surveys, the employment-age gradients are remarkably similar across the two studies. For the analysis that follows, this finding bodes well for the overall external validity of Wave 1 of the data. This increases our confidence that the dataset is reflecting generalizable trends of the proportionate shifts in the labour market. However, with attrition in Wave 2, further analysis of these gradients will be useful in subsequent waves.

Figure 1. Probability of employment by age and sex – NIDS-CRAM Wave 1 and GHS 2018



Source: Ardington, 2020

3. Data

NIDS-CRAM (2020) is a telephonic survey administered to several thousand adults aged 18 or older across South Africa (see Ingle, Brophy & Daniels, 2020), all of whom had previously participated in Wave 5 of the National Income Dynamics Study (NIDS). Wave 1 of the survey was conducted in May and June, while Wave 2 was conducted during July and August, 2020. Across the two waves of the survey, the questionnaire asks respondents to report their labour market status at three discrete points: February (prior to lockdown), April (Stage 5 of lockdown) and June (Stage 3 of lockdown).

For our purposes, which is to analyse labour market dynamics, we exclude from our analysis any individuals aged 60 or older in Wave 1. This exclusion is implemented primarily because people potentially become eligible for the state provided Old Age Pension at age 60, which leads to a substantial amount of labour force withdrawal at that age (Ranchhod, 2006).

In Table 1, we provide a set of descriptive statistics from our sample, in order to gain a sense of the dataset that we are working with.

Table 1. NIDS-CRAM sample characteristics

Data from NIDS-CRAM Wave 1 & Wave 2, All adults aged 18-59 inclusive						
	Wave 1			Wave 2		
	# of obs.	Unweighted %	Weighted %	# of obs.	Unweighted %	Weighted %
Total sample	6,095			4,877		
By Gender:						
Male	2,425	39.79	48.02	1,929	39.55	48.06
Female	3,670	60.21	51.98	2,948	60.45	51.94
By Race:						
African/Black	5,301	86.97	81.26	4,291	87.98	81.99
Coloured	531	8.71	9.45	402	8.24	9.03
Asian/Indian	60	0.98	2.15	37	0.76	2.20
White	203	3.33	7.15	147	3.01	6.78
By Geographic area:						
Traditional	1,093	17.93	13.71	1,326	27.19	21.11
Urban	4,733	77.65	82.56	3,272	67.09	73.60
Farms	264	4.33	3.64	144	2.95	2.54
By Age group:						
Youth(18-29)	1,797	29.48	34.78	1,441	29.55	35.41
Prime(30-49)	3,563	58.46	50.96	2,82	57.82	50.04
Older(50-59)	735	12.06	14.27	616	12.63	14.55
By Education group:						
<matric	3,093	50.92	46.45	2,521	51.86	46.91
matric	1,566	25.78	26.41	1,243	25.57	26.05
matric+	1,415	23.30	27.13	1,097	22.57	27.04

Notes:

1. The aggregate number of observations in a demographic group may be less than that of the overall sample due to 'refused' or 'missing' responses
2. Excluding people aged 60 or older results in the exclusion of 978 and 799 people from our analysis in Wave 1 and Wave 2 respectively. These correspond to 13.8% and 14% of the overall Wave 1 and Wave 2 samples.

It is important to note that the sample size of individuals aged 18-59 reduces between Wave 1 and Wave 2 by approximately 20%, to 4,877. Attrition of this magnitude is to be expected between the first two waves of a longitudinal survey (see Daniels, Ingle and Brophy, 2020b). Despite this level of dropout, the relative proportions of individuals in the sample remain very similar for age, race, sex and education. However, urban residents have a notably higher probability of dropout, and this is also correlated with household income (ibid, 2020). The final Wave 2 (unweighted) sample is very small for the Asian / Indian population at 37 individuals, and we believe that no meaningful inferences can be obtained for this sub-population.

4. Methods and Variables

In this paper, we are primarily interested in two pieces of information. Firstly, how did the South African labour market change between lockdown level 5 (April) and level 3 (June)? Secondly, what was the rate at which individuals transitioned between the various labour market states during this time? Our statistical tools thus remain fairly straightforward. We provide a series of means for employment outcomes and provide conditional means of these outcomes for various demographic groups as defined by gender, race, age, geographic area types, and levels of educational attainment. We then produce transition matrices that measure the flow into and out of employment for the sample overall.

Conventionally, people who are temporarily absent from their work activities are classified as employed. In most circumstances, this group represents a very small fraction of the employed populace, and they most frequently cite their absence from work as being due to vacation. During the Covid19 lockdown, this group was no longer a negligible proportion of the labour market. Thus, in addition to the conventional classification of who is employed and who is not, we also create an alternative variable to measure employment for April and June.⁴ In this alternative measure, we create a sub-category of employees who are called “furloughed workers”, who meet one of two criteria in our classification system. Either they were not working in the relevant month but report having a job that they expect to return to within four weeks of the date of the interview; or they report being employed but also having worked for no hours and earned no income in the relevant month.

Below we list some of the variables or statistics that we report on in this paper, together with a brief explanation of what these measures mean.

Variables and statistics reported

- **Employed:** These are people who are working, or who are absent from work but say that they have a job that they will return to.
- **Furloughed workers:** This group includes temporarily absent workers as well as workers who report working for zero hours and having zero earnings.
- **Not economically active:** This group of people are not working and not looking for work. It typically contains retirees, students, and full-time caregivers.
- **Discouraged Unemployed:** These are people who are not employed, and are available and willing to take up work within the next week, but are not actively searching for employment.
- **Searching unemployed:** These are people who are not employed, and are available and willing to take up work within the next week, and have been actively searching for employment in the recent past.
- **Unemployment rate (narrow):** Is obtained by taking the ratio of the number of people who are actively searching for work, divided by the number of people who are either employed or actively searching for work.
- **Unemployment rate (broad):** Is obtained by taking the ratio of the number of people who are in either of the unemployed groups, divided by the number of people who are in either of the unemployed groups or are employed.
- **Employment rate (narrow):** Is the ratio of the number of people in employment, divided by the number of people who are either employed or searching unemployed.
- **Employment rate (broad):** Is the ratio of the number of people in employment, divided the number of people who are either employed or searching unemployed or discouraged unemployed.
- **Employment-to-population ratio:** Provides a measure of the fraction of people in a population that are employed. It differs from the employment rate because it does not differentiate between people who are not economically active and people who are unemployed.

In this paper, we present several of these measures for April and June. However, the data for February only allows us to measure the employment-to-population ratio, not any of the employment or unemployment rates.

⁴ The survey instrument is more limited for February and we do not create corresponding alternative variables for that month.

5. Results

5.1. Overview

In this section we present the main results of our analyses. In *Table 2* we present an overview of the labour market by demographic subgroups, as observed for April and June 2020. We categorize individuals into the following labour market states: Not Economically Active (NEA), Discouraged unemployed, Searching unemployed and Employed. We then calculate the broad and narrow unemployment rates.

We see from the table that the overall employment to population ratio stayed roughly the same between April and June, at 49.05% and 49.25%. The percentage of discouraged workers fell on aggregate from 22% to 19%, while the searching unemployed increased from 14% to 18%. The narrow unemployment rate thus increased from 23% to 27%, while the broad unemployment rate remained approximately equal at 43%. This tells the tale of what happened to South Africa between stage 5 (April) and stage 3 (June) of lockdown: i.e. more people were able to look for work, but despite searching, the number of people who wanted a job but did not have one remained approximately constant. These dire circumstances are understandable despite the change in lockdown level from level 5 to level 3, in part because certain industries like tourism, restaurants and other entertainment were still constrained during the level 3 lockdown.

The impacts were not restricted (predominantly) to the urban labour market though: indeed, the rural farm geographical area showed a doubling of the percentage looking for work (the searching unemployed), from 20% to 40%. This happened while the employment-to-population ratio in these areas reduced from 50% to 47%. This means that new job opportunities in the formal rural sector were declining at the same time as more people were looking for work – a particularly difficult situation for rural people. In traditional areas, there was also a reduction in the employment-to-population ratio from 41% to 38%, combined with an increase in the searching unemployed of 4 percentage points. This implies an equally constricting economic environment for people residing in non-urban areas.

Finally, we also note an increase in the percentage of matriculants who were employed, from 43.5% in April to 46.8% in June. This suggests that that some of the less-skilled workers who had lost employment between February and April were able to regain some form of employment as the lockdown levels decreased.

Table 2: Labour market status by demographic groups in April and June (Percent)

	April						June					
	State				Unemployment rate		State				Unemployment rate	
	NEA	Discouraged	Searching	Employed	Narrow	Broad	NEA	Discouraged	Searching	Employed	Narrow	Broad
Overall	14.31	22.34	14.29	49.05	22.56	42.75	13.73	19.2	17.82	49.26	26.57	42.91
Male	10.62	17.87	13.15	58.36	18.39	34.71	11.12	15.65	16.92	56.31	23.11	36.64
Female	17.74	26.49	15.36	40.41	27.54	50.88	16.16	22.5	18.65	42.68	30.41	49.09
African/Black	14.55	24.66	14.34	46.45	23.59	45.64	14.93	20.31	19.27	45.49	29.76	46.53
Coloured	13.4	13	21.14	52.45	28.73	39.43	8.31	22.51	13.51	55.68	19.53	39.28
Asian/Indian	26.15	15.91	17.19	40.75	29.67	44.82	13.07	1.82	18.45	66.66	21.68	23.32
White	9.33	10.67	3.78	76.23	4.72	15.94	6.69	6.95	5.81	80.55	6.73	13.67
Traditional	17.84	25.33	15.81	41.02	27.82	50.07	18.01	24.11	19.92	37.97	34.41	53.70
Urban	13.64	21.89	14.13	50.33	21.92	41.71	12.38	18.18	16.98	52.46	24.45	40.13
Farms	16.11	21.31	12.33	50.25	19.70	40.10	6.37	15.54	31.57	46.52	40.43	50.32
Youth(18-29)	19.41	23.59	20.68	36.32	36.28	54.93	21.41	18.81	23.45	36.32	39.23	53.78
Prime(30-49)	8.09	21.74	11.82	58.35	16.84	36.51	6.51	19.78	16.34	57.37	22.17	38.64
Older(50-59)	24.37	21.46	7.68	46.48	14.18	38.53	20.1	18.11	9.18	52.61	14.86	34.16
<matric	17.45	26.06	14.1	42.38	24.96	48.66	16.6	23.14	18.83	41.43	31.25	50.32
matric	14.16	24.9	17.45	43.49	28.63	49.34	13.99	21.15	18.02	46.84	27.78	45.54
matric+	9.26	13.79	11.8	65.15	15.33	28.20	8.37	10.54	15.84	65.25	19.53	28.79

Notes:

1. Sample includes only people aged 18-59 in Wave 1.
2. People whose labour market status could not be determined are excluded from the calculations.
3. All statistics are weighted using survey weights.

5.2. Alternative definitions of employment

We now turn to evaluating the changing nature of employment and furloughed employment in South Africa.

Table 3: Employment to population ratio, including and excluding furloughed workers (Percent)

	February %		April %		June %	
	All workers	All workers	Excl. Furloughed	All workers	Excl. Furloughed	
Overall	56.91	48.06	37.71	48.80	43.43	
Male	63.43	57.32	45.65	55.99	50.16	
Female	50.89	39.51	30.37	42.14	37.20	
African/Black	54.21	45.35	34.33	45.03	39.14	
Coloured	62.61	52.42	43.97	55.68	54.48	
Asian/Indian	54.96	40.29	31.77	66.66	59.75	
White	80.77	75.45	69.59	79.39	75.18	
Traditional	47.10	40.30	29.97	37.53	33.02	
Urban	58.80	49.31	39.10	52.01	46.36	
Farms	52.03	49.62	35.72	46.50	39.83	
Youth(18-29)	42.28	35.34	27.41	35.85	32.56	
Prime(30-49)	67.09	57.49	45.41	57.09	50.79	
Older(50-59)	56.24	45.39	35.29	51.78	44.54	
<matric	50.03	41.44	31.13	40.96	35.04	
matric	54.99	42.62	33.61	46.58	42.70	
matric+	70.15	64.14	52.41	64.61	58.71	

Table 3 shows the fundamentally important fact that the move from lockdown stage 5 to stage 3 reduced the percentage of people in furloughed employment. This is calculated by taking the within-month difference between the “all workers” column (i.e. the overall employment to population ratio) and the “excluding furloughed” column, which amounts to a reduction in furloughed employment from approximately 10 percentage points in April to about 5 percentage points in June, for the overall population. What is very important about this trend is that it is observed across almost all of the demographic groups. Therefore, the relaxation of lockdown level impacted most strongly on the employed component of the labour market by enabling more economic activity to take place, which is something that we would expect to see.

5.3. Hours worked amongst the employed

The next aspect of labour market outcomes that we consider is the distribution of hours that an employed person worked on a usual day. A comparison of the hours worked distributions for February, April and June are presented in Table 4. We collapsed the hours worked data into four mutually exclusive and exhaustive categories; None, Part-time, Full-time, and Excess. The categories and their boundaries are somewhat arbitrary, but they nonetheless yield a useful sense of the distribution of hours worked.⁵

⁵ Note that this table only includes people who were conventionally classified as employed. This explains the substantially smaller number of observations used to compute these distributions, as compared to the sample sizes listed in Table 1.

Table 4: Distribution of hours worked: NIDS-CRAM Waves 1 & 2

Hours worked	Feb (%)	Apr (%)	Jun (%)
None	2.89	19.51	0
P/T: 1-5 hrs	10.18	12.13	11.71
F/T: 6-12 hrs	85.81	67.56	85.45
Excess: >12 hrs	1.11	0.80	2.84
# of obs	2,888	1,933	1,670

Notes

1. All percentages are weighted.

2. Sample restricted to employed individuals (using the conventional definition) with valid hours information

From an overall economic perspective, it is reassuring to see that the proportion of employees who were working 'full-time' (F/T: 6-12 hrs) has returned to its pre-lockdown level of 85%. It also appears that no employed people are working zero hours, which was the startling case in April during stage 5 of lockdown, when nearly 20% of employees did no work.

5.4. Wage distributions between February and April

A different aspect of the labour market, that has a direct implication for household welfare, is how the distribution of wages has changed over the course of lockdown. Note that the mapping between hours of employment and wages earned is likely to have changed from February to April, as well as from April to June, as at least some workers will have continued to receive some wages even if they did not do any hours of work.

Table 5 Monthly Equivalent Wage Distribution

Wage category	Feb (%)	Apr (%)		June (%)	
		Incl. Furlough	Excl. Furlough	Incl. Furlough	Excl. Furlough
Zero/nothing	5.05	11.09	4.64	7.95	4.44
Less than R3000	41	26.52	27.05	31.39	30.52
Between R3001 and R6000	23.42	23.03	24.27	27.72	29.31
Between R6001 and R12000	12.53	15.57	16.93	14.74	15.96
Between R12001 and R24000	11.56	16.04	17.63	11.47	12.36
More than R24001	6.44	7.77	9.47	6.72	7.41
# of obs.	3,064	2,317	1,731	1,713	1,499

In *Table 5*, we present a categorical version of the wage distribution. There is likely to be some measurement error in this variable, as it involved multiple stages of aggregation. Nonetheless, the comparison yields an important insight, namely that the lockdown period coincided with a large increase in the proportion of employed people who earned no income, from 5% to 11%, after which this reduced to 8% in June. The fact that this is higher than the February pre-lockdown level may reflect that certain economic sectors are still banned from operating, or restricted to operating within limited hours, in lockdown level 3 (June).

Also noteworthy in this Table is that the share of low-wage earners, i.e. those earning less than R6000 per month, has increased substantially between April and June. This is observed regardless of whether we include or exclude furloughed workers from the analysis. This suggests that some

portion of the low-wage earners in February, who either lost their jobs or were furloughed without pay in April, were able to return to work by June.

Lastly, it should be noted that the number of observations used to construct these distributions is much smaller in June compared to April or February. This is due to the effect of attrition in the survey.⁶

5.5. Working from home

In this section we discuss a new variable that was introduced in the questionnaire of Wave 2 of NIDS-CRAM, namely whether the employed subpopulation could work from home. *Table 6* displays the results.

Table 6: Ability to work from home during lockdown in June

Employed: Including Furloughed workers			
	Mostly	Sometimes	Not at all
Overall sample	15.04	9.15	75.81
By Gender:			
Male	13.76	8.38	77.86
Female	16.64	10.12	73.24
By Race:			
African/Black	8.72	7.39	83.88
Coloured	17.44	9.76	72.80
Asian/Indian	27.79	0.00	72.21
White	55.33	23.85	20.82
By Geographic area:			
Traditional	10.00	9.22	80.78
Urban	16.64	9.17	74.19
Farms	5.95	5.16	88.89
By Age group:			
Youth(18-29)	13.47	9.91	76.63
Prime(30-49)	13.99	8.97	77.05
Older(50-59)	21.62	8.65	69.73
By Education group:			
<matric	7.09	8.13	84.78
matric	10.18	5.59	84.23
matric+	27.19	12.82	59.99

Notes:

1. Self-employed workers were not asked this question.
2. Only valid responses are used to calculate percentages.
3. Percentages calculated using weights.

⁶ We present some evidence in the appendix that results in us not being overly concerned about potential biases arising from this attrition.

At the aggregate level we see that only 15% of those employed in June could work from home most of the time, while 75% were unable to work from home at all. More importantly, this was distributed in an inequality-increasing way: for example, people with more than a matric-level education, white respondents, and older individuals were significantly more able to work from home. The correlation with race and education levels would at least partly explain the inequality enhancing patterns of job loss that were observed between February and April (see Daniels and Ranchhod, 2020). Consequently, policy interventions to increase the ability of the workforce to work from home would be a beneficial intervention for any future lockdowns.

5.6. Occupational distribution of employment

In *Table 7*, we present the distribution of occupations amongst employed people in April and June. The occupation variable is a categorical variable with 10 broad categories, and is coded after the survey was conducted based on responses to the question “What kind of work do you usually do?” The occupational distribution of employment provides a useful disaggregation because it allows us to evaluate whether people in low-skilled, semi-skilled, or highly-skilled occupations experience the impacts of lockdowns similarly or not.

We see from the table that people in (relatively) less-skilled occupations, such as elementary occupations, and craft and related trades, are more likely to be furloughed, as are service and sales workers. Compare this to managers and professional – highly skilled occupations – where the probability of being furloughed is significantly lower. Again, this demonstrates the inequality exacerbating effects of the lockdown.

Table 7: Occupational Distribution and Distribution of Furloughs by Occupation in April and June (Percent)

Occupation	Occupational Distribution		April			June		
	April	June	Non-furlough	Furlough	Total	Non-furlough	Furlough	Total
Armed forces	0.07	0.14	100.00	0.00	100.00	100.00	0.00	100.00
Managers	7.00	5.33	93.59	6.41	100.00	96.93	3.07	100.00
Professionals	16.81	17.50	84.63	15.37	100.00	89.45	10.55	100.00
Technicians and associated	7.71	6.34	86.19	13.81	100.00	89.89	10.11	100.00
Clerical support work	9.04	12.40	77.18	22.82	100.00	87.04	12.96	100.00
Service and sales work	18.16	18.99	78.30	21.70	100.00	94.98	5.02	100.00
Skilled agriculture	1.25	1.50	90.26	9.74	100.00	79.14	20.86	100.00
Craft and related trades	11.24	10.24	73.05	26.95	100.00	84.09	15.91	100.00
Plant and machine operators	9.05	7.39	84.96	15.04	100.00	89.96	10.04	100.00
Elementary occupation	19.68	20.16	70.55	29.45	100.00	85.53	14.47	100.00
Total	100.00	100.00	79.59	20.41	100.00	89.19	10.81	100.00

Notes:

1. All summary statistics are weighted.

5.7. Aggregate employment transition probabilities between April and June:

We now turn to the transition between labour market states at the aggregate level for South Africa. Transition matrices are tools that allow us to measure the rate at which individuals migrate across labour market states over time. They also provide a measure of the stability in the labour market between two periods in time. *Table 8* displays the results.

Table 8: Employment transitions: February to April, and April to June, 2020 (Percent)

February to April				
February	Not Employed	April Employed (excl. furloughed)	Furloughed	Total
Not employed	86.79	7.04	6.17	100.00
Employed	25.56	60.92	13.52	100.00
April to June				
April	Not employed	June Employed (excl. furloughed)	Furloughed	Total
Not employed	80.37	15.38	4.25	100.00
Employed (excl. furloughed)	18.29	76.90	4.81	100.00
Furloughed	24.55	62.42	13.02	100.00

In the first phase of lockdown, we saw that 61% of workers remained employed between February and April, 13.5% became furloughed, while 25.5% of employed people in February were not employed in April. In June, however, 62.4% of furloughed workers returned to active employment, while 13% remained furloughed. At the same time, 24.5% of furloughed workers from April were not employed by June.

There is also a high degree of churning in the other two groups from April to June. The rate of job loss amongst employed people in April was 18%, which is close to 1 out of every 5 employees. On the other hand, a similar proportion of people left the 'Not employed' category, with about 1 out of every 6 people returning to active work. All of this points to a labour market that is fairly unstable and experiencing some rapid changes.

One potential cause for concern here is that the sample and the weights used to generate the transition matrix between February and April are different to the ones used to generate the corresponding matrix between April and June. This may be an issue if there is a substantial degree of selective attrition between Wave 1 and Wave 2 of NIDS-CRAM. In Appendix *Table 1* we show that restricting the sample to only include people who were successfully re-interviewed in Wave 2 does not substantially affect the estimates. This is true regardless of whether we use the Wave 1 or Wave 2 weights as well.

The optimistic message coming out of this data is that the majority of furloughed employees are going back to work; the pessimistic message is that the lockdown and pandemic seems to have caused some long-term damage, with 25% of furloughed workers losing their jobs completely. This speaks to the fact that many enterprises were not able to retain all of their workers through to June, and some may have permanently closed their doors because of the lockdowns.⁷

⁷ It would be extremely valuable to cross-validate these findings with findings from a firm/enterprise survey. At this point in time, we are not aware of the existence of such a dataset.

5.8. Pathways in labour market experiences from February to June

Transition matrices are very useful for presenting the rates of flow between various labour market states across two periods of time, but they are limited when one wants to consider the distribution of experiences across more than two time periods. The same information can be presented in a different format, which explicitly recognizes the sequential nature of multiple time periods. This enables one to get a clearer picture of the overall developments within the labour market.

Table 9: Employment pathways by subgroups: February to April, and April to June, 2020 (Percent)

February		April		June	
State	%	State	%	State	%
Not employed	43.09	Not Employed	37.39	Not Employed	32.75
				Employed (excl. furloughs)	3.83
				Furloughed	0.79
		Employed (excl. furloughs)	3.03	Not Employed	1.21
				Employed (excl. furloughs)	1.53
				Furloughed	0.15
		Furloughed	2.66	Not Employed	0.98
				Employed (excl. furloughs)	1.48
				Furloughed	0.24
Employed	56.91	Not Employed	14.54	Not Employed	9.03
				Employed (excl. furloughs)	4.16
				Furloughed	1.42
		Employed (excl. furloughs)	34.67	Not Employed	5.68
				Employed (excl. furloughs)	27.46
				Furloughed	1.67
		Furloughed	7.70	Not Employed	1.55
				Employed (excl. furloughs)	4.96
				Furloughed	1.10

Notes:

1. Distributions are weighted using sampling weights.
2. The distributions for February and April are obtained using Wave 1 of NIDS-CRAM.
3. The distribution for June is obtained using Wave 2 of NIDS-CRAM.
4. The samples are not identical across waves, due to attrition.

Table 9 shows the pathways of individuals between labour market states from February to April, and then from April to June, in sequence. Starting with the lower left side of the table, we see that of the 57% that were employed in February, the majority remained employed in April (35 percentage points out of the 57%), but that approximately 15 percentage points of the 57% lost their jobs while 8 percentage points were furloughed. Of this 8% sub-sample, 5 percentage points regained their employment in June, 1.1 percentage points remained furloughed, while 1.6 percentage points lost their jobs completely.

For those who were employed in both February and April, 27 percentage points of the 35% remained in employment in June, while 6 percentage points lost their jobs and 2 percentage points went

into a state of being furloughed. Amongst those who lost their jobs between February and April, 9 percentage points of the 15% remained without work in June, while 4 percentage points regained employment and 1.4 percentage points went into a state of being furloughed. In summary, for the employed population in February, there has been considerable churning in the labour market during this time.

For those who were not employed in February, which is the top left of *Table 9*, approximately 37 percentage points of the 43% remain unemployed in April, while 3 percentage points gained employment and a further 3 percentage points entered a state of being furloughed. Of those who found a job in April, only 1.5 percentage points of the 3% remained employed in June. New jobs gained for those not employed in both February and April only amounted to 4 percentage points of the 37% in April.

In summary then, there has been an improvement in the overall labour market in South Africa between April and June, but we are still a long way off from the February 2020 pre-pandemic levels.

6. Conclusion

In this paper, we updated our original study on labour market dynamics in the time of Covid-19 in South Africa, that was based on Wave 1 of the NIDS-CRAM data. This update includes additional data from Wave 2 of the same survey, and extends the time period of observation by two months from April to June. This period is also important as it coincides with a partial relaxation of the national lockdown, from Stage 5 in April to Stage 3 in June.

Our primary findings are that the proportion of adults who were employed stabilized between April and June, at about 48%. This was still between 8 and 9 percentage points below the level observed in February before the pandemic had reached South Africa.

Despite the stability in the overall proportion of people with employment, we do observe a significant decrease between April and June in the fraction of people who were furloughed. The fraction of people who were either temporarily absent from work, or reporting both zero hours and zero earnings, decreased from 10.3 percentage points to 5.3 percentage points. This was a welcome development which coincided with the relaxation of restrictions that accompanied the shift from Stage 5 to Stage 3 of the lockdown.

A less positive development between Wave 1 and Wave 2, however, was that almost 25% of the people who were furloughed in Wave 1 report not having a job any longer by Wave 2. There is thus significant variation in the experiences of people who were furloughed. More generally, we find a substantial amount of churning in the labour market, with about 23% of people who reported being employed in April being either furloughed or not employed by June. On the other hand, about 15% of people who were not employed in April had found employment by June.

Some of this rapid churning may well be reflecting measurement error in terms of reporting, but some of it may be real and thus reflective of a substantial and rapid restructuring that the South African labour market is undergoing. With more waves of data we will be in a better position to separate between these competing but not mutually exclusive explanations.

A final point worth noting relates to something that we documented in our previous paper. The changes that were manifest between February and April were clearly inequality enhancing. Less skilled workers and low-wage earners were more likely to lose their jobs or be furloughed during the lockdown. This pattern has been partly reversed between April and June. While the changes reduce inequality in the labour market between April and June, they are not large enough to offset the changes observed between February and April, with the net result being that labour market inequality in June is still significantly higher than it was in February.

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Appendix

Appendix Table 1: Transition matrices between February and April (%)

Full Wave 1 sample, Wave 1 weights				
April				
	Not empl	Employed	Furloughed	Total
February	(excl. furloughed)			
Not employed	86.79	7.04	6.17	100.00
Employed	25.56	60.92	13.52	100.00
Only people also interviewed in Wave 2, Wave 1 weights				
April				
	Not empl	Employed	Furloughed	Total
February	(excl. furloughed)			
Not employed	87.27	6.57	6.17	100.00
Employed	26.38	60.36	13.26	100.00
Only people also interviewed in Wave 2, Wave 2 weights				
April				
	Not empl	Employed	Furloughed	Total
February	(excl. furloughed)			
Not employed	86.99	6.73	6.28	100.00
Employed	25.61	61.04	13.35	100.00

For further information please see cramsurvey.org