

South African labour market and Income inequality: medium term effects from the COVID-19 pandemic

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Introduction

- South Africa responded early to the COVID-19 pandemic with a strict regime of measures to curb the spread of the virus.
- A nationwide lockdown at alert level 5 was announced on the 22nd of March 2020. Subsequent waves of the virus saw a fluctuation between alert levels 1 and 5. While these intervals of lockdown did successfully reduce infections, this came at a large cost, with concomitant effects on the economy at large and the labour market in particular.
- In this paper, we evaluate how government regulations and the Covid-19 pandemic between 2020–2021 filtered locally and impacted household income distribution. We do this by investigating how the events of the two years affected the labour market and income inequality in South Africa.

Data and methods

We make use of three different data sources - the 2017 National Income Dynamics Study (NIDS), the 2020 NIDS-Coronavirus Rapid Mobile Survey (NIDS-CRAM), and the 2021 NIDS-Coronavirus Rapid Mobile Survey (NIDS-CRAM).

Table 1: Mean values of Household characteristics

	Pre-Covid	Early-Covid	Late-Covid
Race			
African	0.86	0.79	0.79
Coloured*	0.07	0.11	0.12
White	0.07	0.10	0.09
Female Household Head	0.55	0.53	0.52
Age of Household Head	37.1	40.7	41.6
Education			
Highest School Grade	10.1	10.2	10.2
Tertiary Education	0.33	0.39	0.42
Employment			
Employed (strict)	0.81	0.76	0.76
Unemployed (strict)	0.19	0.24	0.25
Unemployed (broad)	0.20	0.41	0.36
Labour force participant (strict)	0.64	0.61	0.66
Labour force participant (broad)	0.65	0.78	0.78
Household size	4.09	4.23	4.11
Household income**	R8,311	R7,600	R7,986
Informal dwelling/housing	0.11	0.22	0.22
Household lost income during the year	-	0.32	0.17
Receives employment income	0.77	0.55	0.56
N	7,073	7,073	5,862

Empirical Strategy

- Difference in Difference (DiD) regressions.

$$I_{hts} = \alpha + \alpha_1(\text{reated})_{hts} + \alpha_2(\text{Post} - \text{Treatment})_{hts} + \alpha_3(\text{Treated} \times \text{Post} - \text{Treatment})_{hts} + \theta(Z)_{hts} + St + \varepsilon_{hts}$$

Where I is income inequality in household h in time t and state s . Z reflects a vector of averaged household-level controls in the pre-and late-covid periods. s denotes state fixed effects. Treatment is a dummy variable that takes the value of one if household h is significantly affected by the pandemic in 2020, and zero otherwise. Post-Treatment is a dichotomous variable that takes the value of one for the late-Covid period (2021), and zero for the pre-Covid period (2017). Our coefficient of interest is α_3 .

Results

- Our result from Table 2 shows that inequality as measured by Gini and the income ratio of the 90th to 20th percentile are significantly higher in the treated households.

Table 2: Effect of the Covid-19 on income inequality

	Gini	Income 90/20	Top 10 th Share of Income	Log real income of 90th percentile	Log real income of 20th percentile
Treated	0.552 (0.247)	1.220 (0.167)	-0.221 (0.145)	-0.024** (0.009)	-0.045*** (0.021)
Post-Treatment Period	0.143 (0.445)	-0.021*** (0.155)	0.224 (0.461)	0.046** (0.011)	0.050** (0.018)
Treated X Post-Treatment Period	0.361** (0.240)	0.282*** (0.222)	1.331 (0.320)	-0.022 (0.003)	-0.048*** (0.015)
R-Sq	0.811	0.792	0.772	0.915	0.914

- We also examine the income of Africans, Coloured and White and the probability of being in the labour force. Our result shows that the incomes for all, 20th percentile, 50th percentile, and 80th percentile across racial groups are significantly lower in the covid period. However, Africans and Coloured incomes decline disproportionately more. Africans' incomes fell 15.2% relative to Africans in pre-covid period. The corresponding effect is 10.7% and 3.2% for Coloured and Whites, respectively.

Conclusion

- Even though inequality has been a grave problem in South Africa before the Covid-19 pandemic, the regulations to reduce infections in the 2020-2021 period has further worsened the situation and have severe consequences on the labour market and the income inequality gap.
- A key policy implication of this paper is that to move towards equality there is a need for better safety nets for low-income earners. This could be in the form of investment in human capital through education and easier access to credit.