

The impact of COVID-19 on labour markets and living standards in Mauritius

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Abstract

Understanding the distributional impact of the COVID-19 crisis on the labour market and ultimately on the living standards of the population is key to designing adequate policy responses to shield individuals' and families' livelihoods. This article illustrates the impact of COVID-19 on the labour market as well as on living standards in the case of a small open economy: Mauritius. We present descriptive evidence based on a unique set of telephone household surveys, representative of the Mauritian population, conducted between May 2020 and March 2021. We find that women had a higher risk of losing their job and leaving the labour force, reversing a decade-long trend of increasing labour force participation. Low-skill workers in sectors that depend on global demand – and even more so if employed informally – together with women were more likely to be affected by the crisis. One in three households reported a loss in income since the start of the pandemic, and the probability of experiencing this shock increases with the number of household members who lost their job and who were employed informally. From a policy perspective, our findings underscore the negative distributional consequences of the pandemic and provide substantive evidence for the viability of a further proactive policy stance to shield the livelihoods of vulnerable households during the economic recovery phase.

JEL Codes: J21, J24, J33

Keywords

Coronavirus, inequality, labour market, Mauritius, recessions

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Introduction

The COVID-19 pandemic, a relentless health emergency, has quickly evolved into one of the most severe economic crises in history. As of 16 July 2022, over 560 million cases had been confirmed worldwide, with over 6.3 million people losing their lives. The toll continues to rise as many countries face a new wave of infections.¹ Since the first cases were reported on March 18, Mauritius has recorded a total number of 233,000 cases, with about 1000 deaths.² The International Monetary Fund (2021) estimates a contraction in global growth by -3.2% in 2020 and projects a rebound in global economic growth to 6% in 2021 and 4.9% in 2022. According to Statistics Mauritius, the Mauritian economy contracted by 14.9% in 2020 with the sharpest declines in the industrial sector (-16.6%) and the services sectors (-15.4%), followed by agriculture which posted a 2.5% contraction.

The economic shock triggered by the pandemic in 2020 laid bare structural issues in the long-term growth model of many countries, including Mauritius. Even before COVID-19, the long-term growth model of the small island state had started to show its fragility: declining investments and stagnating productivity of capital, loss in export competitiveness and declining market shares, an ageing population and frictions in the labour market, in addition to fiscal deficits and rising levels of public debts (World Bank, 2021a). This paper focuses on the issue of sustainable development of small island states by looking at the case of Mauritius, a success story of growth and rising living standards based on economic diversification and fiscal redistribution. It indicates how economic shocks such as the one generated by the pandemic could be the springboard to push forward with a new generation of policy reforms. In particular, understanding the distributional impact of the COVID-19 crisis on the labour market and ultimately on the living standards of the population is key to designing adequate policy responses to shield the livelihoods of both individuals and families, and limit further the adverse effects of the ongoing crisis. Following the outbreak of COVID-19 and lockdown measures introduced in Mauritius on 20 March, Statistics Mauritius suspended all field activities involving face-to-face data collection. To monitor the socioeconomic effects of the pandemic on Mauritian households, Statistics Mauritius and the World Bank launched household telephone surveys that provide a distinctive window into studying the impact of COVID-19 pandemic on households.³ Relying on this unique dataset, we document the impact of the pandemic on the Mauritian labour market and provide a preliminary assessment of key policy measures implemented in response to the crisis.

Despite a growing literature on the socio-economic impact of the COVID-19 pandemic on small island nations (Guerra-Marrero et al., 2021; Hakim, 2020; Rashid et al., 2020; United Nations [UN], 2021; World Economic Forum, 2020), our study is arguably the first attempt to document the negative effects of the COVID-19 pandemic and consequent economic crisis on the labour market on the labour market in such a country context.⁴ The study contributes to the literature on the impact of economic downturns on labour market outcomes (among others, Christiano et al., 2015; Hoynes et al., 2012) and the importance of short-time work, also known as short-time compensation schemes, to help firms and workers during the first phase of economic downturns. Among others, Cahuc et al. (2018) show that short-term work schemes can save jobs in French firms

severely affected by the demand shock caused by the Great recession and the cost per saved job is limited relative to other employment policies. Second, it contributes to the rapidly growing literature on the effects of the COVID-19 pandemic, lockdown and subsequent economic crisis on labour markets using data collected before the crisis, as well as mobile phone and real-time survey data. Recent research indicates that the magnitude of the COVID-19 shock differs across countries, depending on the institutional context, economic structure and availability of short-time work schemes. It particularly affects sectors and occupations in which tasks cannot be carried out from home, as well as workers who are less educated, youth, women and the self-employed (among others, see Adams-Prassl et al., 2020; Blundell and Machin, 2020; Montenegro et al., 2020). Looking at job vacancies, Campello et al. (2020) and Forsythe et al. (2020) found that the demand for labour had decreased drastically in the United States (US). Similarly, our results confirm a sharp decline in labour demand in Mauritius. Insofar, our analysis supports the notion that observed negative effects on labour market outcomes are even more pronounced for small-island economies that heavily rely on in-person services such as tourism. From a policy perspective, a key insight is that, due to their greater vulnerability to these types of adverse shocks, small island economies can reap substantial benefits and enhance their socio-economic resilience when intensifying their investments into blue economic activities and diversifying their economies towards more sustainable sources of economic activity.

The rest of the paper is structured as follows. Section 'A snapshot of labour market trends throughout the pandemic' discusses broad labour market trends. Section 'The determinants of labour market outcomes during the pandemic' provides an analysis of the correlates of labour force participation, employment and displacement in Mauritius. Section 'Protecting jobs and living standards in the short and medium-term' illustrates the key features of the government's main support programmes with a focus on the Government Wage Assistance Scheme (GWAS) and the Self-Employed Assistance Scheme (SEAS). Section 'Measuring the effects of the pandemic on the labour market and on living standards' features a preliminary assessment concerning the effectiveness of these programmes in shielding household incomes. Section 'Conclusions' indicates that coupled with structural challenges pre-dating the pandemic, the unequal impact of the crisis on the economy, the labour market and living standards and the uncertainty about the timing and intensity of the economic recovery calls for a recalibration of the economic and social model to achieve an equitable and sustainable recovery from the pandemic. An economic model aimed at enhancing the resilience of key economic sectors to climate change impacts by investing in the blue economy from tourism to fishing and taking advantage of new opportunities from decarbonisation.

A snapshot of labour market trends throughout the pandemic

The Mauritian economy has realised an unprecedented structural transformation since independence. Today, the agricultural sector accounts for about 3% of GDP, the industrial sector contributes about 20%, while the remaining 77% of GDP is produced by the services sector. Trade, financial and insurance activities and tourism services together

Table 1. Employment, unemployment and inactivity, from first quarter 2020 to first quarter 2021.

	Q1 2020	May	June	July	September	October	December	Q1 2021
Employed	534,802	405,387	473,062	498,036	506,363	510,239	523,725	460,729
Unemployed	38,307	45,771	65,997	57,246	62,220	60,682	60,973	49,847
Inactive	208,087	336,897	230,612	215,806	203,621	201,977	188,045	299,794
Activity rate, %	73.4	57.2	70	72	73.6	73.9	75.7	63

Source: Based on data from the first quarter of 2020, 2021 of the Continuous Multi-Purpose Household Survey and the Rapid Continuous Multi-Purpose Household Survey, Statistics Mauritius and World Bank. Activity rate: labour force over population; Unemployment rate: unemployed over labour force.

account for almost 40% of the country's GDP, followed by manufacturing, public administration, health and education services, real estate activities and administrative and support services activities. With the outbreak of COVID-19 and border closures, there were virtually no tourist arrivals between April and October 2020.⁵ Hospitality and food services, tour operators, taxis and shops selling to tourists have been heavily affected. In comparison with 2019, accommodation and food services activities contracted by 65.8% in 2020. Manufacturing exports, wholesale trade and construction activity are expected to partially rebound in 2021.⁶

Before the pandemic struck, labour force participation had increased over time, reaching 59.3% in 2019 while unemployment had declined from 7.3% in 2009 to 6.7% in 2019. Gender gaps had narrowed over the past decade, with women's labour force participation increasing from 42.9% to 46.2% between 2011 and 2019. In 2019, over 80% of the employed population worked for a wage, about 15% were self-employed, while the remaining 5% were distributed between employers (about 3%) and contributing family workers (about 2%). The services sector, led by trade, accommodation and food services activities and in third position transport, contributed over 70% of total employment. The secondary sector followed with 24% of total employment, with manufacturing and construction constituting the lion's share, while agriculture contributed about 6% in 2019.⁷

The outbreak of the pandemic and the subsequent economic crisis have taken a toll on employment. The number of employed declined by 13.9%, approximately 74,000 people, from the first quarter of 2020 to the first quarter of 2021 (Table 1).

In the first quarter of 2020, the employed population aged 15–64 not in full-time education was estimated at 534,802 persons. In May, when the country was still in lockdown, total employment declined to 405,387 (–24%). Although employment bounced back to 523,725 employed persons in December 2020, the resurgence of cases and the re-introduction of pandemic-related measures led to a severe drop in employment to 460,729 (–12%) during the first quarter of 2021. The loss in employment has been accompanied both by an increase in the number of unemployed and in the number of inactive individuals. Whereas the unemployment rate increased from 7.2% in the first quarter of 2020 to 10.8% during the first quarter of 2021, the inactivity rate dropped from 73.4% to 63% during the same time span, indicating that displaced workers stopped looking for new work and left the labour force in greater numbers.

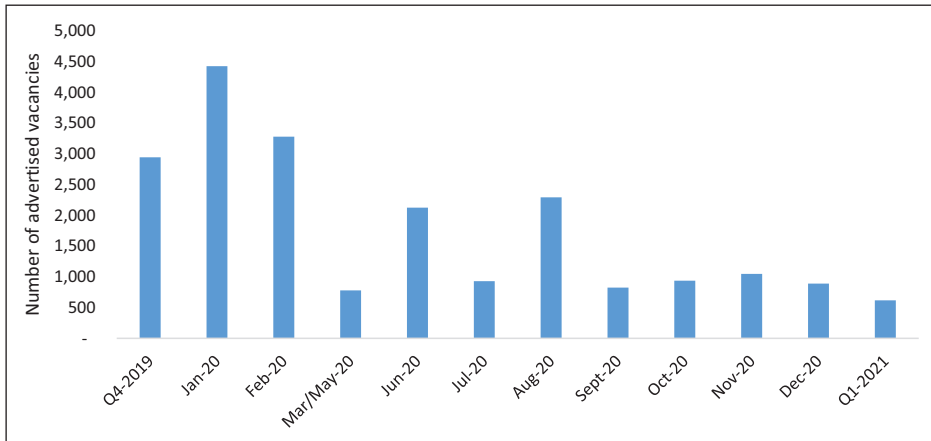


Figure 1. Trends in number of advertised vacancies, Q4/2019–Q1/2021.

Source: Based on data from Employment Service Monthly Bulletins of the Ministry of Labour, Human Resource Development and Training of the Republic of Mauritius.

The number of vacancies represents the aggregate number of public and press vacancy announcements from the last quarter of 2019 to the first quarter of 2021.

Numbers of vacancies for Q4-2019, March–May 2020 and Q1-2021 are a monthly average over the period.

Analysing labour demand during this time, measured as the number of advertised vacancies, several patterns emerge. In line with the observed employment outcomes (Figure 1), job postings sharply contracted from a monthly average of over 3000 over the period October 2019 to February 2020 to less than 800 between March and May 2020. Although labour demand picked up in June (2125) and August 2020 (2292), generally, demand continued to trend downward from September 2020 (824) into the first quarter of 2021 (quarter mean: 617).

Women too, have suffered negative labour market effects as a consequence of the pandemic. The percentage decline in employment has been similar for women and men during the initial phase of the pandemic. Between the first quarter and July 2020, about 6.5% of women and 7.2% of men lost their jobs. Although the labour market was seemingly recovering in the latter half of the year, a total of 559,636 individuals reported losing their employment between September 2020 and the first quarter of 2021. Analysing these specific displacement patterns, several observations stand out. First, in absolute numbers, the total amount of jobs lost due to the pandemic and the ensuing economic crisis was higher among men given that the pre-crisis employment rate was higher for men. However, while most men who had lost their jobs started to look for new work, and thus remained engaged in the labour market, most women exited the labour market and became inactive after displacement.

The number of unemployed men rose by 83% compared with a growth of about 6% among women until July 2020. Even though these growth effects levelled off in the second part of the year, this trend was reversed at the beginning of 2021. Between December 2020 and the first quarter of 2021, a total of 41,830 fewer men and 21,166 fewer women reported being employed (Table 2). Given that unemployment rates remained stable in

Table 2. Employment, unemployment and inactivity, by sex and age group, first quarter 2020 to first quarter 2021.

Men											
	Q1 2020	May	June	July	September	October	December	Q1 2021			
Employed	319,740	248,436	273,166	296,811	301,627	304,590	317,329	275,499			
Unemployed	16,931	28,606	36,327	32,171	31,985	28,783	29,798	25,309			
Inactive	53,172	111,563	74,109	53,781	50,451	50,020	38,706	102,514			
Activity rate, %	86.4	71.3	80.7	85.9	86.9	87.0	90.0	74.6			
Unemployment rate, %	5.3	11.5	13.3	10.8	10.6	9.4	9.4	9.2			
Women											
	Q1 2020	May	June	July	September	October	December	Q1 2021			
Employed	215,062	156,952	199,896	201,225	204,735	205,649	206,396	185,230			
Unemployed	21,376	17,164	29,670	25,076	30,236	31,899	31,175	24,538			
Inactive	154,915	225,334	156,503	162,025	153,170	151,957	149,339	197,279			
Activity rate, %	60.4	43.6	59.5	58.3	60.5	61.0	61.4	51.5			
Unemployment rate, %	9.9	10.9	14.8	12.5	14.8	15.5	15.1	13.2			
Youth (ages 16–24)											
	Q1 2020	May	June	July	September	October	December	Q1 2021			
Employed	54,002	40,591	44,290	45,925	44,079	46,399	55,080	36,354			
Unemployed	17,454	9802	16,469	20,642	20,517	20,441	18,210	17,791			
Inactive	29,572	53,667	28,888	25,263	25,393	27,082	17,580	88,822			
Activity rate, %	70.7	48.4	67.8	72.5	71.8	71.2	80.7	37.9			
Unemployment rate, %	32.3	24.1	37.2	44.9	46.5	44.1	33.1	48.9			

Source: Based on data from the first quarter of 2020, 2021 of the Continuous Multi-Purpose Household Survey and the Rapid Continuous Multi-Purpose Household Survey, Statistics Mauritius and World Bank.

Activity rate: labour force over population; Unemployment rate: unemployed over labour force.

comparison to December 2020, increased job losses translated into a drop in the activity rates for both men (−15%) and women (−10%). Although the female activity rate was estimated at 58.3% in July 2020 and recovered to 61.4% – outpacing its pre-pandemic level (61.0% in the first quarter 2020) – female activity rate saw a sharp decline in the first quarter of 2021 reaching 51.5%.

At a disadvantage in terms of access to jobs before the pandemic, Mauritian youth aged 16–24 years were not spared by the crisis. Youth employment declined by about 33% between the first quarter of 2020 and the first quarter of 2021, compared with a drop of 10% among workers in other age groups. In 2020, the activity rate among youth declined substantially as a result of COVID lockdown measure until May and gradually bounced back to 80.7% in December. The number of youth looking for a job increased by about 756, and the unemployment rate rose from 24.1% in May to 33.1% in December. Again, although the recovery throughout 2020 positively impacted the Mauritian labour market, these positive trends have been entirely reversed during the first quarter of 2021. Youth were not spared from these developments, their employment decreased by 18,726 between December 2020 and the first quarter of 2021 leading to an increase in youth unemployment from 33.1% to 48.9% during the same time. As unemployment and inactivity heavily influence future outcomes at a young age and youth inactivity can permanently impair productive potential and influence lifetime patterns of employment, pay and job tenure, the sharp decline in youth labour force participation to 37.9% warrants further policy attention.

In terms of sectoral distribution, the reduction in employment during the first 3 months since the start of the pandemic was largely attributable to the dynamics of informal employment (Statistics Mauritius and World Bank, 2020). Whereas formal employment dropped by about 10% from 384,000 in the first quarter of 2020 to 343,817 in May 2020, informal employment sharply contracted from 150,800 to 61,570 during the same time (−59%). By September 2020, formal employment had recovered and in the first quarter of 2021 was above pre-crisis levels. By contrast, informal employment increased between June and December and then contracted again and fell to 53,184 in the first quarter of 2021 (Figure 2).

The determinants of labour market outcomes during the pandemic

To substantiate our initial findings, we analysed the correlates of labour force participation and corresponding employment and displacement patterns through a series of regressions.⁸ To structure our analysis, we performed regressions on four selected time windows. Starting with the widest possible time frame of all available survey months in 2020, we separately analysed the first quarter of 2020 (i.e. Pre-pandemic time window); the first period after the initial lockdown (i.e. May until July 2020); the second period after the lockdown had been (partially) lifted in August (i.e. September until December 2020); and the first quarter of 2021. This way of analysing the data allowed us to study the responsiveness of labour market outcomes and derive insights into the effectiveness of the implemented policy measures to the ongoing pandemic (e.g. the labour market effect of lockdowns). Given existing sex differences in the Mauritian labour market, we

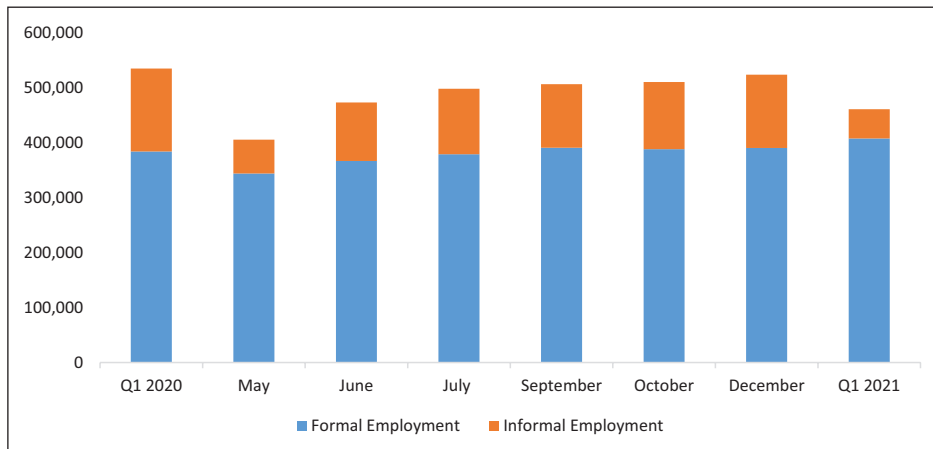


Figure 2. Trends in employment levels by formality status, Q1/2010–Q1/2021.

Source: Based on data from the first quarter of 2020 and of 2021 of the Continuous Multi-Purpose Household Survey and six rounds of the Rapid Continuous Multi-Purpose Household Survey, Statistics Mauritius and World Bank.

also provide the results of our analysis for subgroups of men and women. Due to data limitations, our analysis of displacement patterns is restricted to the time window between September and the first quarter of 2021.

We report our findings in Figure 3 and the full results in the Supplemental Table A2. In line with prior findings, men were more likely to participate in the labour force. For instance, men across all groups were 12.6% more likely than women to be in the labour force at the outset of the pandemic ($p < 0.01$). According to our estimation results, slightly more women than men left the labour force during the pandemic, with this effect most pronounced in the aftermath of the first lockdown (i.e. between May and July 2020). This can be attributed to women's greater prevalence of displacement and household-related factors. Interestingly, these sex differences in labour force participation level off for divorced, separated and single women during the pandemic.

The point estimates are based on OLS regression including month and district fixed effects. The dependent variable in all model specifications is a respondent's answer to the question of whether they have lost their employment due to business closures between September 2020 and the first quarter of 2021. At the outset of the pandemic no significant differences existed between women based on marital status, however by the September–December period women that were either divorced, separated and/or single were between 18.9% and 21.1% more likely to be active participants in the labour market than their married counterparts. We cannot detect such a pattern among men. With respect to education, higher education seems to be a robust predictor of labour force participation, even when considering the pandemic. For instance, in comparison to their peers without a completed primary education and/or no schooling, women with post-secondary or tertiary education were almost 30% more likely to be active participants in the labour force (see Supplemental Table A2). Although this advantage varies across

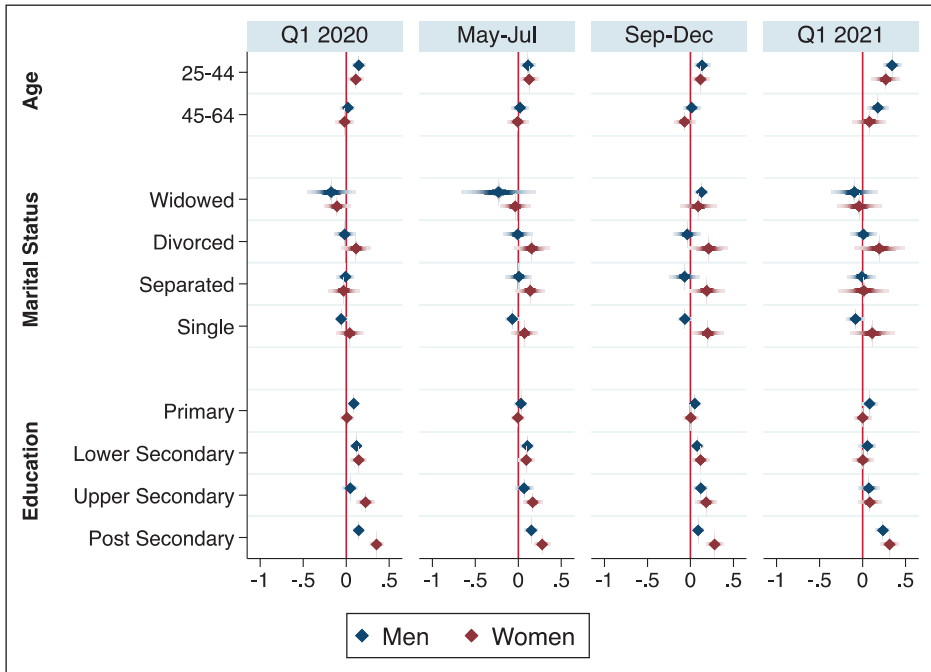


Figure 3. Correlates of labour force participation by sex and time period.

Source: Based on data from the Continuous Multi-Purpose Household Survey and the Rapid Continuous Multi-Purpose Household Survey, Statistics Mauritius and World Bank.

educational attainment it varies little during the course of the pandemic, and in comparison to men, the effect is approximately double in size. The observed education advantage for men ranged between 8.9% and 21.7% between the first quarter of 2020 and corresponding first quarter in 2021. As expected, those aged 25–44 years were more likely to be active in the labour force than their peers aged 16–24 and 45–64, even though this effect is subject to moderation once the pandemic progressed. Also, these age cohort effects seem not to differ between men and women. In line with this finding, across all model specifications, household size seems to be a robust predictor of labour force participation. Again, no significant differences existed between women and men.

With respect to our analysis on employment, we report our findings in Figure 4 and the full results in Supplemental Table A3. Although men were more likely to participate in the labour force, these differences did not translate into more employment opportunities after the onset of the pandemic. While men were 3.6% more likely to be employed during the first quarter of 2020, this effect disappeared in the direct aftermath of the first lockdown between May and July 2020. Interestingly, the gains in employment between September and December 2020 led to the re-emergence of existing gender biases with respect to employment. Although at the pandemic's outset divorced, separated and single women were less likely to be employed in comparison to their married peers, they were just as likely to be employed as the pandemic progressed. A notable exception were single

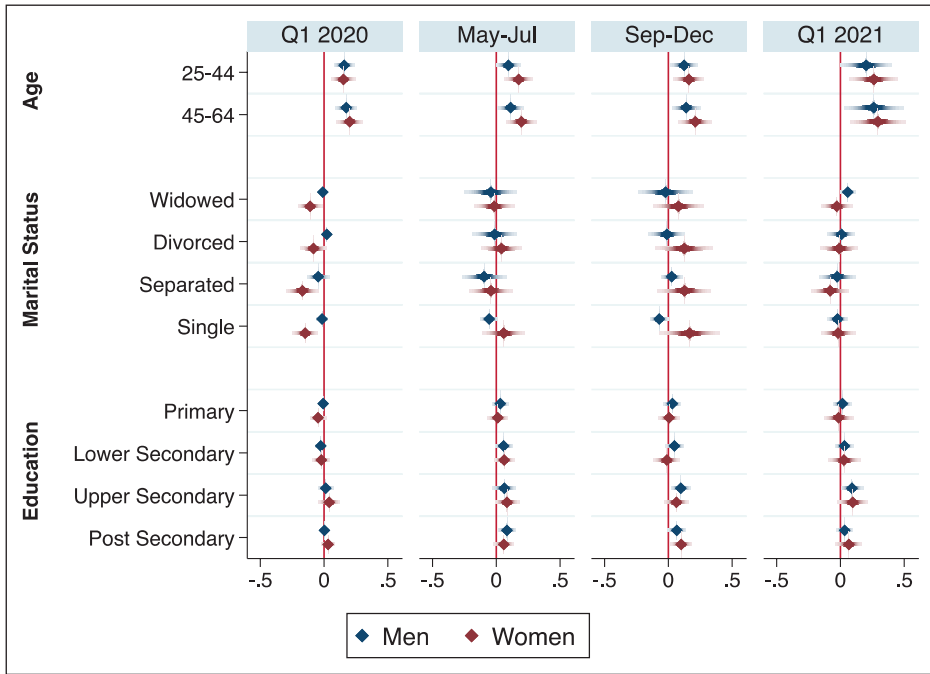


Figure 4. Correlates of employment by sex and time period. Source: Based on data from the Continuous Multi-Purpose Household Survey and the Rapid Continuous Multi-Purpose Household Survey, Statistics Mauritius and World Bank.

women, who were 16.7% more likely to be employed in comparison to their married peers, a remarkable difference compared to the first quarter of 2020, during which single women were 14.8% less likely to be employed. In sharp contrast, we can detect a somewhat opposite pattern among single men who were 7.1% less likely to be employed than their married peers between September and December 2020 but showed little difference during the first quarter of 2020.

The point estimates are based on OLS regression including month and district fixed effects. The dependent variable in all model specifications is a respondent’s answer to the question of whether they have lost their employment due to business closures between September 2020 and the first quarter of 2021. With respect to education, higher education was a more robust predictor of employment, especially during the pandemic. Interestingly, the education effect on employment was equally pronounced between men and women across all levels of education whereas these differences did not seem to matter at the outset of the pandemic. For instance, in comparison to their peers without a completed primary education and/or no schooling, women with post-secondary or tertiary education were almost 10% more likely to be employed between September and December 2020. Although this advantage varied across level of educational attainment, a lower or upper secondary education was more conducive for employment during the pandemic. At the outset of the pandemic, in the first quarter of 2020, those aged 25–44 and 45–64 were

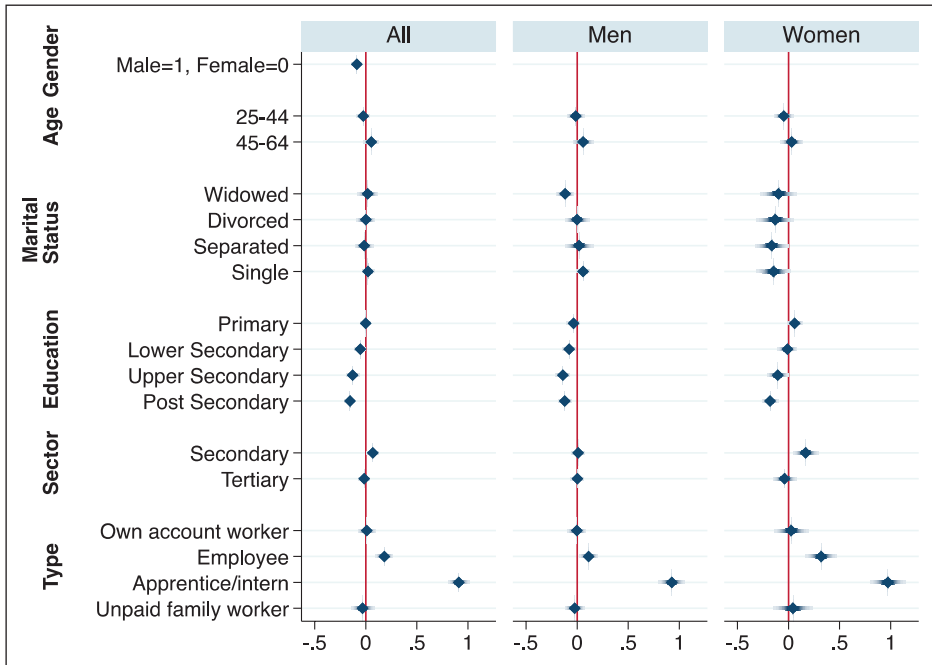


Figure 5. Correlates of displacement by sex, May–March 2021.

Source: Based on data from the Continuous Multi-Purpose Household Survey and the Rapid Continuous Multi-Purpose Household Survey, Statistics Mauritius and World Bank.

The point estimates are based on OLS regression including month and district fixed effects. The dependent variable in all model specifications is a respondent’s answer to the question of whether they have lost their employment due to business closures between September 2020 and the first quarter of 2021.

more likely to be employed than youth. However, this effect was subject to modest moderation once the pandemic progressed. These findings are in line with recent research on youth employment dynamics in Mauritius (Castaneda et al., 2020). In addition, there were no differences in these age cohort effects between men and women. In line with this finding, across all model specifications, household size was not a robust predictor of employment and again, no significant differences existed between women and men.

The observed drops in employment during the pandemic warrant further investigation. For this reason, we analyse specific displacement patterns in this section. Due to data limitations, this analysis is limited to between September 2020 and March 2021.

Again, our findings confirm the notion of an asymmetric displacement pattern between women and men (Figure 5). For example, we find that women were 12.1% more likely to lose their job when compared to their male peers. Importantly, women with less education were most susceptible to displacement during the pandemic. For example, women who had attained an upper secondary education or higher were up to 10% less likely to be displaced compared to women without any or an incomplete primary education. Furthermore, we find that married women were more likely to lose

their employment compared to their divorced (−24.3%), separated (−24.1%) and single peers (−23.3%).

Displacement was most likely to occur for those aged 45–64 years (11.0%), with this effect more pronounced for men (11.5%) and less so for women (8.7%). These findings are notable to the extent that re-employment and re-training for this age cohort might prove to be more challenging (Bednarzik et al., 2021). When looking at the sectoral composition of displacement, the effect was most pronounced in the services sector. As expected, most displaced workers were employees and again, women were disproportionately represented among those workers who were displaced (i.e. approximately 65% of displaced employees). Synthesising these insights, displacement appears to be concentrated in the services sector and among women, with women who are the least educated the most vulnerable.

Further analysis of displacement patterns between September 2020 and the first quarter of 2021 revealed that women were more likely to be displaced than men, indicating the presence of a potential gender bias in firms' layoff decisions. As expected, men and women with higher education were significantly less likely to be laid off during this period, underscoring the importance of education for increased job security. Interestingly, we find that older employees were better protected from being laid-off in comparison to their younger peers, reinforcing the importance of tenure/work experience for increased job security. This effect holds for both men and women. The upshot in unemployment corresponds to intensifying displacement in the secondary (or manufacturing) sector. According to estimation results, being employed in the secondary sector increased the likelihood of being displaced by 9%.

Against this background, a key insight of our analysis is the stark differences between men and women in their displacement and employment. Although initial differences in gender patterns can be attributed to gender roles, where women are the primary providers of childcare and other unpaid work, the pandemic has proven to be a powerful catalyst in undermining any advances in levelling the labour market playing field.⁹

Protecting jobs and living standards in the short and medium-term

Following the outbreak of COVID-19 in Mauritius, the Government implemented several measures to contain the spread of the virus, including adopting a sanitary curfew; the cessation of public transport; international border closures; the closure of schools, universities and shopping malls; suspension of onsite work among public and private sector workers except for essential activities; and mass testing.¹⁰

To contain the socioeconomic impact of the pandemic, the government intervened promptly with fiscal support measures.¹¹ These included a moratorium on capital and interest payments on existing and new loans; a loan facility benefiting micro, small and medium enterprises; the distribution of food packages to the most vulnerable households; and compensation schemes for workers. This section focuses on the compensation schemes, namely, the GWAS and the SEAS, which were introduced to protect jobs and support incomes.¹²

Temporary wage subsidies are an adequate instrument for providing support for worker incomes during crises, such as the one triggered by the COVID-19 pandemic, that affect both labour supply – in this case, the ability of workers to go to work – and labour demand – because firms are obliged to close. Under the GWAS, private sector firms are entitled to cash transfers to pay their wage bills. In particular, private-sector employees with basic salaries up to MUR 25,000 were entitled to receive their full salaries, employees taking in basic monthly salaries between MUR 25,000 and MUR 50,000 received a fixed amount of MUR 25,000, while employees with basic salaries above MUR 50,000 a month were not eligible to receive wage subsidies from the government. Under the SEAS, the self-employed aged 18 years and over (i.e. including those aged 18) and in business during the 3 months prior to the outbreak were entitled to receive monthly financial support of MUR 5100 as long as they were not: beneficiaries of government assistance, dependent spouses, belonging to a household with a monthly income above MUR 50,000, fishermen, full-time university students or formal private-sector employees.

Based on pre-crisis labour force survey data, virtually all workers employed in low-skill jobs and most workers performing medium-skill jobs received a monthly basic salary of up to MUR 25,000 and were therefore eligible to receive full subsidies under the GWAS.

Since July 2020, the schemes have only covered workers in the tourism sector. During the second lockdown in March 2021, the support was provided to other sectors as a reduced payment at half the original monthly payment to wage workers, as well as a one-off grant of MUR 10,000 to the self-employed. With the start of the reopening in April 2021, a full month assistance was provided under both GWAS and SEAS for all sectors and the schemes were extended until September 2021 for tourism-related companies.

Between 20% and 50% of workers in high-skill jobs typically received a basic monthly salary between MUR 25,000 and MUR 50,000 and were therefore eligible to partial salary replacement. These workers were in households from the middle and top of the household income distribution. The GWAS, therefore, appears to be well-targeted toward the workers most in need. Workers in high-skill jobs were also more likely to be able to work from home as about 79% used computers at work, compared to only 30% of workers in medium-skilled jobs and less than 6% in low-skilled jobs (based on the Continuous Multi-Purpose Household Survey, first quarter, 2020).

According to data from the Mauritius Revenue Authority published by Statistics Mauritius, about 270,000 private sector workers benefited from the GWAS in March 2020, about 256,000 in April and about 220,000 in May. Based on 2019 labour force survey data, this corresponds to 84% coverage of private-sector employees with a basic salary below MUR 50,000 (in March), 80% (in April) and 69% (in May) (Statistics Mauritius, 2020).¹³

The SEAS provided minimum income replacement to both formal and informal self-employed workers. The monthly transfers of MUR 5100 corresponded to about 50% of the minimum wage; this is considerably less than the median (MUR 14,630) and average monthly (MUR 18,390) business income (in 2020 prices) reported by the self-employed in 2019. Nonetheless, providing the self-employed with a cash transfer in a time of crisis is critical to ensuring these people receive income, as the

self-employed cannot operate their businesses during lockdowns and face considerable uncertainty over both their ability to reopen and the availability of customers while demand remains weak.

About 203,000 SEAS applications were processed in March, over 186,000 in April and about 185,000 in May. These numbers are considerably higher than the 97,900 employers and own-account workers who were estimated to have been operating in Mauritius in 2019 (Statistics Mauritius, 2020) and still considerably higher than the 108,200 if contributing family workers were considered as potential applicants. This gap may be attributable to informal employees applying for income support under SEAS rather than the GWAS. Informal employees are private-sector workers whose employers do not pay contributions to the National Pension Fund. Such workers are not registered with the Mauritius Revenue Authority and are therefore not eligible to benefit from the wage subsidies provided through the GWAS. Instead, informal employees are likely to have applied for financial assistance under the SEAS.¹⁴ Based on the 2019 Continuous Multi-Purpose Household Survey data, about 91,000 private sector workers can be categorised as informal according to the criterion explained above. Adding these informal employees to the number of self-employed leads to a total number of potential applicants that is closer to the number of applications processed under the SEAS.

It is extremely important that financial assistance schemes reach all workers, particularly those at the bottom of the income distribution, including informal wage workers. However, it is worth noting that the amount provided under the SEAS to informal private sector employees is equivalent to 50% of the minimum wage and therefore only a fraction of what these workers usually make per month and of what was provided to formal employees.

In October 2020, the government announced several funding initiatives to be implemented over the following 8 months to reduce unemployment. As a result, from 1 November 2020, until 30 June 2021 five initiatives were funded. First, the Human Resource Development Council increased the National Training and Reskilling Intake by some 9000 unemployed in construction, manufacturing, logistics, ICT-BPO, agro-industry, renewable energy and the circular economy. These individuals received a monthly benefit of MUR 10,200 for the duration of a 6-month training programme.¹⁵ Second, the Employment Support Scheme for Small and Medium Enterprises was to support 11,000 employees through a monthly benefit of MUR 10,200. Third, Landscape (Mauritius) Ltd was to hire about 2000 unemployed to work with the National Clean-Up Campaign. Fourth, the Air Freight Scheme – incorporated into the Economic Recovery Plan — had two components: namely supervision of the national airline which was under voluntary administration, and support for the export sector. Finally, to support the most vulnerable following a new lockdown, electricity was made free for March and April for individuals on the Social Register of Mauritius or under the National Empowerment Foundation, as well as for low-consuming SMEs, and at a 46% discount for the following 4 months. The Government also established the COVID-19 Solidarity Fund aimed at funding COVID-19 related projects such as financial support to Mauritian residents, and the financing of projects related to the COVID-19 virus and other related health issues. The fund primarily relies on donations from the public and enterprises, however at roughly MUR 500 million it is rather small.

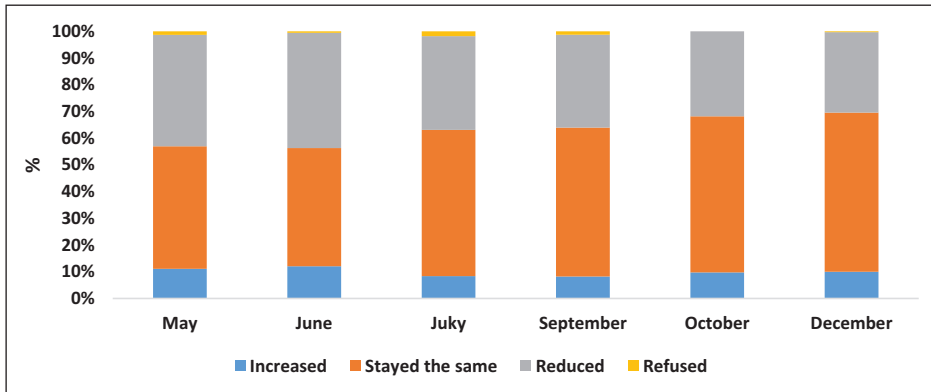


Figure 6. Changes in household income, relative to pre-lockdown (May, September, October and December round), to previous month (June and July round).

Source: Based on data from the Rapid Continuous Multi-Purpose Household Survey, Statistics Mauritius and World Bank.

In the May round, the question regarding the change in household income has a reference period the time since the start of the lockdown; in the June and July round, the reference period is the previous month; in the September–December rounds, the reference period is the first months of 2020 before CVOID-19.

Measuring the effects of the pandemic on the labour market and on living standards

Despite the fast roll-out of government programmes aimed at shielding labour incomes, the question arises as to whether these programmes were effective in mitigating income losses. To provide an answer to this question, we analysed data on self-reported income losses among Mauritian households between May and December 2020 (Figure 6). According to our estimates, on average more than one in three Mauritian households reported an income loss in comparison to their pre pandemic income (in the May, September, October and December round), or in comparison to their previous monthly income (in the July and June round). These income losses were most pronounced at the outset of the COVID-19 pandemic and gradually reduced towards the end of 2020. Whereas 41.7% of households reported experiencing an income loss during May 2020, 30.1% or almost one in three households saw their incomes fall below pre pandemic levels in December 2020 and living standards have continued to worsen for a non-negligible share of the population. First, although employment bounced back in December from the May decline, the sharp contraction in January 2021 hints at the temporary nature of this labour market recovery. Second, for many workers, even individuals who have gone back to work after an interruption, labour income is below pre-pandemic levels. Both individuals who have lost their jobs and displaced workers will need continuing support. In this way the income support schemes, such as SEAS and GWAS, have been useful in maintaining job attachment and protecting some workers from the scarring effects associated with prolonged periods of unemployment, particularly worrisome among youth.

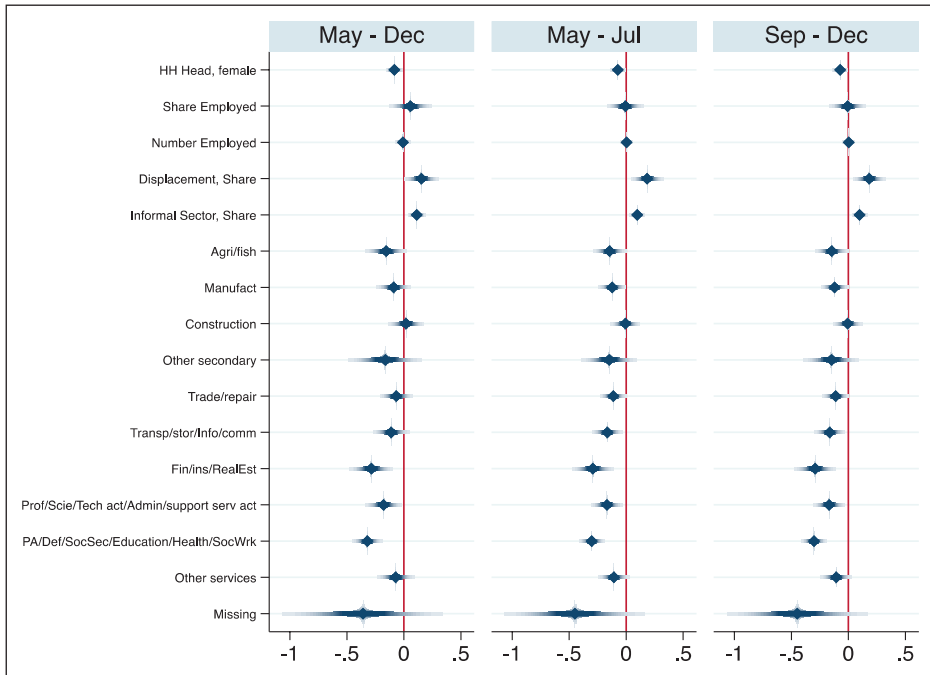


Figure 7. Correlates of household income loss by time period. Source: Based on data from the Continuous Multi-Purpose Household Survey and the Rapid Continuous Multi-Purpose Household Survey, Statistics Mauritius and World Bank.

The point estimates are based on OLS regression including month and district fixed effects. The dependent variable in all model specifications is a respondents answer to the question whether they have lost their employment due to business closures between September 2020 and the first quarter of 2021.

To further disentangle these findings, we performed a regression analysis to study the correlates of the probability of reporting an income loss at the household level between May and December 2020. The results are reported in Figure 7.

In line with the informal sector’s observed decline in activity and limited coverage from government programmes (see Supplemental Table A5), it is those households with a larger share of household members working informally that were more likely to experience income loss. Similarly, those households in which one or more members lost their employment during the reference period were at greater risk of experiencing lost income. Households with more members engaged in financial, health services and science/technology sectors were less likely to report a negative income shock, possibly due to the relatively easy switch to a remote working environment. Relying on previous surveys, our results show that workers in the services sector, especially in modern services (such as information and communication, professional, financial, insurance and real estate activities, scientific and technical activities, administrative and support service activities) are more likely to access computers and therefore potentially perform their work from home (Figure 8a). The skill level of jobs also has an affect with the share of workers

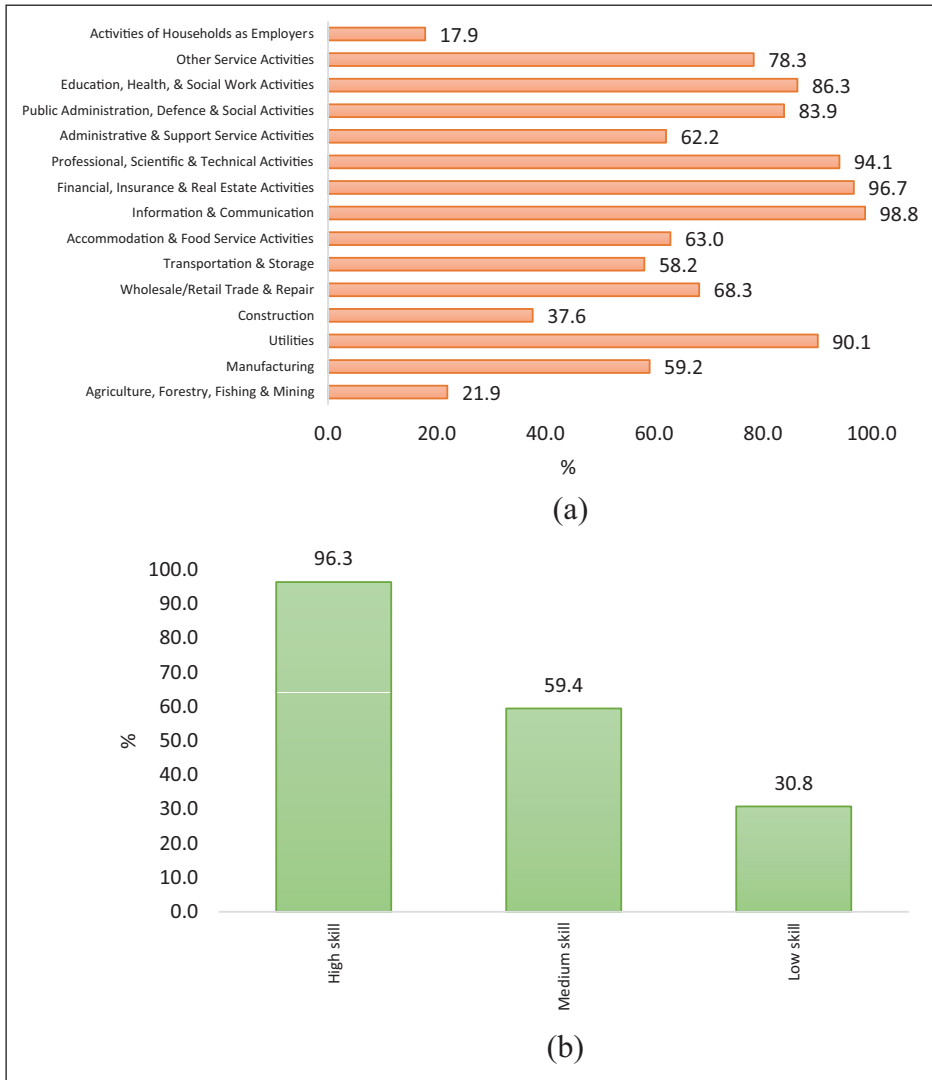


Figure 8. Share of the employed able to use computer by sector and skill level first quarter 2020: (a) by sector and (b) by skill level.

Source: Based on data from the 2020 Continuous Multi-Purpose Household Survey, Statistics Mauritius.

able to use computers employed in high (96.3%) and medium (59.4%) skill jobs considerably larger than the 30.8% of workers in low skill jobs (Figure 8b).

Interestingly, while female-headed households represented 9.4% of all households in our sample, they were less likely to be affected by income loss. This effect cannot be attributed to better coping strategies but is likely due to such households being largely dependent on government transfers rather than income from labour, prior to the outbreak of the pandemic (World Bank, 2017).

Although we do not have direct information on the distributional consequences of these income losses, our results indicate that the crisis has impacted those sectors, occupations and informal jobs in which workers from poor and low-income households are concentrated. For example, according to prior estimates, the manufacturing, trade and construction sectors combined employed 39% of all workers but 50% of the poor. Additionally, 66% of the poor worked informally, disproportionately more than in the informal share of the workforce overall (31%). At the same time, it is households exposed to these sectors that are experiencing the largest reported income losses.

The limited availability of home-based work among workers in traditional sectors such as agriculture and manufacturing and in low skill jobs, and the limited access to the internet among the most disadvantaged households, have likely aggravated these adverse economic impact on vulnerable households. Synthesising our results, our findings support the notion that the pandemic has undermined some of the progress achieved in poverty reduction and shared prosperity in recent years.

Conclusions

The COVID-19 crisis has had sizable negative effects on economies around the globe. In particular, small island economies with significant reliance on tourism have proven to be vulnerable to the adverse consequences towards lockdown measures and a sudden stop in international travel. In this paper, we study the case of such a small island economy: Mauritius. Despite a promising development track record over the past decades (lifting the country to a high-income country status in July 2020) and the government's policy measures to diversify economic activity, Mauritius was hit hard by the pandemic. Importantly, we show that these adverse effects have not been distributed evenly. Low-skilled and informal workers employed in traditional sectors such as agriculture and manufacturing and in tourism and trade have suffered more job losses and will likely endure the negative effects for a longer time. Furthermore, women were more severely affected by the crisis as job losses were more concentrated among women and displaced women stopped looking for work to take care of their families during the pandemic, effectively undoing some of the progress on greater female labour force participation achieved over the past decade.

The immediate response of the government, including compensation schemes for private sector employees and an income support programme for own account workers, has played an important role in limiting job destruction and income loss. However, these measures are costly and are to be replaced in the medium term with social protection schemes that can help sustain the incomes of the most vulnerable households, while potentially providing retraining and upskilling among individuals who have lost their jobs. Retraining could be relatively easy for workers previously employed in the tourism sector who are largely young and well educated. Two examples of such schemes in Mauritius are the Social Aid Program and the Marshall Plan Social Contract. The first appears to be particularly well suited to providing income relief to individuals who have temporarily lost their jobs and to their families. The second may represent an alternative in the event some individuals are unable to find new jobs in the medium term because of, for instance, a slow recovery in the tourism sector or a persistent pandemic crisis.

From a policy perspective, the unequal impact of the crisis on the economy, the labour market and living standards, together with the uncertainty about the timing and intensity of the economic recovery, calls for a strengthening of existing social protection programmes in the medium term to support individuals and households affected by the crisis (World Bank, 2021b). Beyond these immediate socio-economic concerns, both for Mauritius and many other small island economies (Rasheed, 2021; UN, 2021; United Nations World Tourism Organization [UNWTO], 2021), the COVID shock represents an opportunity to recalibrate existing economic development and growth-models to achieve an equitable and sustainable recovery from the pandemic. For Mauritius and small island economies, recovering from the global economic setback of the pandemic, the recent experience provides a unique window of opportunity to transition to an economic growth model that bolsters the resilience of key economic sectors to climate change impacts. Particularly, investments in the blue economy, ranging from tourism to fishing, and taking advantage of new opportunities from decarbonisation, represent unique opportunities to create more resilient and sustainable economic foundations.

Authors' note

The findings, interpretations and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organisations, or those of the Executive Directors of the World Bank or the governments they represent.

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Notes

1. Based on data collected by Johns Hopkins University, coronavirus.jhu.edu/map.html accessed on 16 July 2022 at 9.10 am EST.
2. Further details are available at <https://covid19.mu/> and at coronavirus.jhu.edu/map.html.
3. An in-depth description of the survey instrument is provided in Supplemental Table A1.
4. A notable exception is Rashid et al. (2020), who provide an overview of the pandemic's impact on selected macroeconomic outcome variables for the entire universe of small island

developing nations. More recent analyses of the World Economic Forum (2020), the United Nations (UN) High Level Political Forum on Sustainable Development (UN, 2021) and United Nations Conference on Trade and Development (UNCTAD, 2021) provide further evidence on the adverse economic and social effects of the pandemic on small-island economies and emphasise the need for concerted international action to support these nations to achieve a sustainable recovery. Importantly, these contributions highlight the need to account for the vulnerability of these economies to the impacts of climate change and opportunities arising from policy reform resulting from the pandemic.

5. According to Statistics Mauritius, between April and October 2020, only 740 arrivals were recorded, which can be attributed to repatriations of nationals. In the same period in 2019, Mauritius recorded 621,337 arrivals. In addition to the lockdown response to the ongoing pandemic, an oil spill from a stranded freighter in July 2020 might have further contributed to the steep decline in tourist arrivals, even after travel restrictions were lifted in October.
6. The financial sector is expected to pick up in 2022 only if some progress is achieved in anti-money laundering following the October addition by the European Union of Mauritius to the list of High Risk Third Countries for Money Laundering. For further information, see: https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-supervision-and-risk-management/anti-money-laundering-and-counter-terrorist-financing/eu-policy-high-risk-third-countries_en.
7. The figures reported refer to Mauritian employment. In addition, about 44,000 valid work permits were issued to foreign workers as of December 2019, largely employed in manufacturing and construction and for low-skill occupations. Foreign labour represented about 7% of total employment in 2019.
8. To this end, we construct several models centred on three key dependent variables. First, we construct a variable that captures whether a person within the reference population is in the labour force. This variable takes the value of 1 if a person is in the labour force and 0 otherwise. Second, we construct a similar variable for employment, which takes the value of 1 if a person is employed and 0 if unemployed during the reference period. Finally, we construct a displacement variable that takes the value of 1 if a respondent has reported to have lost their employment due to a COVID-19 related business closure or workforce reduction. To account for confounding factors, we included a series of control variables in our regressions. Besides a variable for sex, we incorporated variables capturing the level of education, age, marital status and relationship to the head of the household. Furthermore, we included district fixed effects to account for location-specific differences and month fixed effects to control for unobserved temporal effects impacting the Mauritian labour market. We relied on non-linear probability models and cluster standard errors at the household level in all model specifications.
9. Data collected in 2018 indicated that women spent an average of about 5 hours a day on activities outside the system of national accounts production boundary, which includes both care work and unpaid domestic work. Men devoted an average of less than 2 hours per day. Moreover, most inactive women aged 25 or more mention household responsibilities as the main reason for not engaging in the labour market (Gaddis and Ranzani, 2020).
10. Between March 25 and April 1, the authorities closed all supermarkets, bakeries and shops and distributed food to vulnerable households. A curfew was instituted on March 20 which lasted until May 30. A gradual reopening was adopted on May 15. Initially, employees could return to work after obtaining a work access permit. From 1 June, work permits were no longer required, but employers must comply with social distancing rules, while working from home was encouraged. Borders reopened on 2 October 2020, with all arriving passengers quarantining for 2 weeks. Following new cases of domestic transmission after almost a year, a second lockdown was introduced on 11 March 2021 with a phased reopening from 1 April.

A partial lockdown remained in place until the end of April, when only some specific economic activities could operate under strict sanitary conditions.

11. A summary of the measures adopted by the government has been compiled by the International Monetary Fund and is available at <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>.
12. The schemes were introduced in March and maintained during April and May. The schemes have remained in place for workers and the self-employed who had licenses or permits to operate in the tourism sector or related activities.
13. This estimate is based on a total of 394,000 private sector employees, which excludes workers in public administration and defence sector (48,100).
14. While precise eligibility criteria were identified in order to apply for financial assistance under both the SEAS and GWAS (see <https://www.mra.mu/index.php/media1/self-employed-assistance-scheme>), the design of the SEAS scheme was intended to cover informal self-employed, which are not registered with the tax authority. This implies that informal private sector employees and the unemployed/inactive could have applied to the scheme and received assistance.
15. A circular economy is an industrial system that promotes a gradual delinking of growth and development from the consumption of finite resources by relying on renewable energy and seeking to eliminate waste through the superior design of materials, products, systems and business models.

References

- Adams-Prassl A, Boneva T, Goldin M, et al. (2020) Inequality in the impact of the coronavirus shock: Evidence from real time surveys. *Journal of Public Economics* 189: 104245.
- Bednarzik R, Kern A and Hisnanick J (2021) Displacement and debt—The role of debt in returning to work after displacement. *Journal of Financial Economic Policy* 13(5): 600–650.
- Blundell R and Machin S (2020) *Self-employment in the Covid-19 crisis*. CEP COVID-19 Analyses cepcovid-19-003. London: Centre for Economic Performance, London School of Economics.
- Cahuc P, Kramarz F and Nevoux S (2018) *When short-time work works*. Discussion Paper 11673. Bonn, Germany: Institute for the Study of Labour (IZA).
- Campello M, Kankanhalli G and Muthukrishnan P (2020) *Corporate hiring under COVID-19: Labor market concentration, downskilling, and income inequality*. NBER Working Papers 27208. Cambridge, MA: National Bureau of Economic Research.
- Castaneda JL, Gaddis I, Ranzani M, et al. (2020) *Supporting Mauritian Youth With Little Education in Their Job Search. Preliminary Evidence From a Behavioral Intervention*. Washington, DC: World Bank.
- Christiano LJ, Eichenbaum MS and Trabandt M (2015) Understanding the great recession. *American Economic Journal: Macroeconomics* 7(1): 110–167.
- Forsythe E, Kahn LB, Lange F, et al. (2020) Labor demand in the time of COVID-19: Evidence from vacancy postings and UI claims. *Journal of Public Economics* 189: 104238.
- Gaddis I and Ranzani M (2020) *Fostering Labor Force Participation Among Mauritian Women: Quantitative and Qualitative Evidence*. Washington, DC: World Bank.
- Guerra-Marrero A, Couce-Montero L, Jiménez-Alvarado D, et al. (2021) Preliminary assessment of the impact of Covid-19 pandemic in the small-scale and recreational fisheries of the Canary Islands. *Marine Policy* 133: 104712.
- Hakim L (2020) COVID-19, tourism, and small islands in Indonesia: Protecting fragile communities in the global coronavirus pandemic. *Journal of Marine and Island Cultures* 9(1): 130–141.

- Hoynes H, Miller DL and Schalle J (2012) Who suffers during recessions? *Journal of Economic Perspectives* 26(3): 27–48.
- International Monetary Fund (2021) *World Economic Outlook Update. Fault lines widen in the global recovery*, July. Washington, DC: IMF.
- Montenovo L, Jiang X, Rojas FL, et al. (2020) *Determinants of disparities in Covid-19 job losses*. NBER Working Paper 27132. Cambridge, MA: National Bureau of Economic Research.
- Rasheed A (2021) *Small island developing states drive a green post-COVID-19 recovery agenda*. Policy Brief 2021/8. Canberra: ANU College of Asia and the Pacific. The Department of Pacific Affairs (DPA).
- Rashid H, Ng P, Cheng H, et al. (2020) *The COVID-19 pandemic puts small island developing economies in dire straits*. Policy Brief No 64. New York, NY: United Nations Department of Economic and Social Affairs (UN/DESA).
- Statistics Mauritius (2020) Social support. Financial support given to workers during the lockdown period and extended to specific activities after lockdown. September. Available at: https://statsmauritius.govmu.org/Documents/Homepage/Covid19/Covid_doc_Social_support.pdf (accessed 15 June 2022).
- Statistics Mauritius and World Bank (2020) Monitoring the socio-economic effects of COVID-19 on Mauritian households—May to July 2020. October 2020. Available at: https://statsmauritius.govmu.org/Slider/SitePages/CMPHS_May-July2020.aspx (accessed 15 June 2022).
- United Nations (UN) (2021) Coming together to help Small Island Developing States to get on a path to realize the SDGs. Available at: <https://sustainabledevelopment.un.org/index.php?page=view&type=20000&nr=7185&menu=2993> (accessed 15 June 2022).
- United Nations Conference on Trade and Development (UNCTAD) (2021) Small island developing states face uphill battle in COVID-19 recovery. Available at: <https://unctad.org/news/small-island-developing-states-face-uphill-battle-covid-19-recovery> (accessed 15 June 2022).
- United Nations World Tourism Organization (UNWTO) (2021) Small Islands Developing States (SIDs). Available at: <https://www.unwto.org/sustainable-development/small-islands-developing-states> (accessed 15 June 2022).
- World Bank (2017) *Mauritius: Addressing Inequality Through More Equitable Labor Markets*. Washington, DC: World Bank.
- World Bank (2021a) *Mauritius Country Economic Memorandum: Through the Eyes of a Perfect Storm*. Washington, DC: World Bank.
- World Bank (2021b) Small States: Fighting the pandemic, focusing on solutions. Available at: <https://www.worldbank.org/en/news/feature/2021/09/23/small-states-fighting-the-pandemic-focusing-on-solutions> (accessed 15 June 2022).
- WorldEconomicForum(2020)Smalldevelopingcountriesface difficultCovid-19recovery. *Forbes*, 19 May 2020. Available at: <https://www.forbes.com/sites/worldeconomicforum/2020/05/19/small-developing-countries-face-difficult-covid-19-recovery/?sh=4394d206fbfa> (accessed 15 June 2022).

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