



The Socio-Economic Impact of the COVID-19 Pandemic in Saint Lucia: Findings from the Saint Lucia COVID-19 High Frequency Phone Survey (COVID-19 HFPS)¹

Analysis of the 1st round of data collection

(May 5 to 18, 2020)

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1. Introduction

This report summarizes key findings from the first round of the High Frequency Phone Survey (COVID-19 HFPS) in Saint Lucia, which the World Bank conducted in collaboration with Saint Lucia's Central Statistical Office (CSO). The survey aims to monitor the socio-economic effects of the COVID-19 pandemic in Saint Lucia, the first country to conduct such a survey in the Latin America and the Caribbean (LAC) region. Adapted to meet the country context, the World Bank and the CSO jointly developed the questionnaire based on the World Bank *COVID-19 Global CORE Questionnaire*. Data collection for the second round of this survey is taking place in late July to early August, 2020 to track ongoing socio-economic effects of the pandemic and related policy responses. This information will help the Government of Saint Lucia and its development partners to design, re-design, target, and evaluate on-going and future policy interventions.

Saint Lucia, an island economy of 0.2 million people with a GDP of about US\$ 2 billion, has recently experienced positive GDP growth (1.4% in 2018-19) and declining poverty.² However, the COVID-19 pandemic is causing a severe reversal in economic growth in 2020 (-7.2% GDP growth projected). Government statistics reported only 23 confirmed COVID-19 cases, with no deaths and 19 recoveries as of July 20, 2020, partially due to proactive and early government response. The National Television Network has broadcasted a series named "COVID-19: The Road to Recovery" with a focus on rebuilding the economy in the new COVID-19 context. In addition, the Government has initiated Phase 1 of its Responsible Reopening Plan³ to allow tourism activity so people can slowly regain access to income-generating activities.⁴ According to the COVID-19 High Frequency Phone Survey (HFPS), households across all geographic and socio-economic groups are well-aware of the COVID-19 pandemic and key preventive measures. Around 90 percent of respondents knew 9 out of 10 preventive measures suggested by the Center for Disease Control and Prevention (CDC) and the World Health Organization (WHO) and adopted some of these key measures.

A key feature of the COVID-19 HFPS is the ability to measure household welfare using the World Bank Group (WBG) Survey of Wellbeing via Instant and Frequent Tracking (SWIFT) tool. The SWIFT approach allows imputation of household-level consumption expenditures from responses to some key questions known to be important correlates of poverty. This allows identification of households likely to be poor and non-poor, which not only enables us to assess how the impacts of the pandemic vary with differing poverty status, but also guides us in understanding differences in behavioral responses. In this first round of the COVID-19 HFPS, we used SWIFT to identify households likely to have been poor and non-poor **prior to the COVID-19 outbreak** and estimate profiles of these households (details on the application of the SWIFT methodology in this survey can be found in Annex A2).

Interpretation of results from this survey should keep in mind the caveats of phone-based data collection. These include selection bias towards the population owning a mobile phone (heterogeneity in coverage and usage) and non-response due to respondent refusal or inability to reach a working number. Given these potential limitations, we use a propensity score matching (PSM) reweighting strategy (see Annex

²World Bank Macro Poverty Outlook for Saint Lucia (2019).

³Tourism is the leading economic sector in Saint Lucia, contributing an estimated 10 percent of GDP and direct employment for approximately 20,000 people.

⁴ Saint Lucia's economy is highly dependent on tourism, which accounts for half of GDP and employment.

A3 for details on the methodology) to extrapolate the nationally representative statistics presented and discussed throughout this report.

Results are organized in 3 main themes: (a) Knowledge on preventive measures and policies against COVID-19; (b) Socio-economic effects of the COVID-19 pandemic and related policies; (c) Public Government and NGO transfers.

- (a) **Knowledge on preventive measures and policies against COVID-19.** Early government information campaigns proved useful in imparting knowledge of preventive measures to the majority of the population. More than 90 percent of Saint Lucians are aware of major preventive measures, except for using gloves, and the survey shows key measures are largely practiced.
- (b) **Socio-economic effects of COVID-19 pandemic and related policies.** COVID-19 had a huge effect on living conditions and livelihoods in Saint Lucia in terms of access to basic needs and services, employment, income, and food security. Some key findings include:
- **Access to basic needs has been severely restricted.** About 15 percent of households experienced difficulty in accessing basic needs such as food and medicine since the COVID-19 outbreak. Poor households are around 10 percent more likely to face these constraints than non-poor.
 - **Large income and job losses occurred.** More than 70 percent of respondents report their household income having declined since the COVID-19 outbreak. Also, more than 40 percent of respondents working prior to COVID-19 were not working during the survey. The situation was worse for poor households and rural residents, where the shares among poor households and rural residents reached 50 percent.
 - **The biggest job losses occurred in the wholesale, retail, restaurants, and hotel sector.** As a result, the share of respondents working in this sector declined from 30 to 20 percent post-COVID.
 - **Non-farm family businesses/household enterprises were particularly affected by income losses.** Nearly 90 percent of these family businesses were affected, and almost 30 percent of these households had not received any income since March 20, 2020.
 - **Many households, particularly poor, suffered severe food insecurity.** Nearly 30 percent of households ran out of food once or more during the 30 days prior to the survey. This situation is more serious for poor households, with nearly 50 percent experiencing a time when they ran out of food.
- (c) **Public Government and NGO transfers.** To gauge household resilience to the pandemic, the survey gathered information on household access to public transfers through safety net programs. This information is particularly important for vulnerable households facing negative labor income shocks, food insecurity, or that were already struggling to survive (that is, the poorest). We asked respondents about access to on-going Government transfer programs such as the National Meals Program, education support, grant for children with disabilities, housing support, and, more importantly, subsistence allowance to assist people affected by COVID-19.

- **The poor and those under severe food insecurity are in general more likely to receive public funds.** For home care packages, welfare services, and education support, the poor are 2 to 4 times more likely to receive these forms of assistance. For all programs, the food insecure are more likely to be recipients.
- **However, program coverage is in general limited.** While about 12 percent of households received at least one social programs, each program covered no more than about 6 percent of households.

2. Sampling and data collection

This survey uses a database of telephone numbers collected during the listing for the World Bank Saint Lucia Disaster Risk Management and Poverty (DRM-Poverty) Survey, which aimed to assess how household preparedness and responses to weather and climate-related shocks affect socio-economic outcomes. Because all in-person survey work came to a halt post-COVID, the World Bank collaborated with the CSO to quickly respond by using the most recent database of phone numbers collected for the Saint Lucia DRM survey to conduct a high-frequency phone survey (COVID-19 HFPS) to evaluate short-term effects of the COVID-19 pandemic and responses.

We drew the database of telephone numbers from 179 out of 582 Enumeration Districts (EDs) spread across the 11 Saint Lucian regions. During the listing of the DRM-Poverty survey, all households in the selected EDs were asked to provide their telephone numbers, but provision of telephone numbers was voluntary. Consequently 1,800 respondents reported their contact numbers during the listing exercise. The final sample used for this survey declined further to 1093 phone numbers because some numbers were no longer working and some households did not agree to participate in current and future rounds. The final sample is spread across 141 EDs in the country. We fielded the HFPS between May 5 and May 18, 2020. Although the sample for the original Saint Lucia DRM-Poverty survey was designed to be nationally representative, the final sample may not be as representative due to selection bias. Therefore, we adjusted sampling weights using a propensity score weighting (PSM) technique (see details in Annex A3). All statistics in this report were calculated using the adjusted weights to provide nationally representative results.

3. Results

3.1 Knowledge on preventive measures and policies against COVID-19

Knowledge of the pandemic and measures required to minimize the risk of contracting the disease is widespread in Saint Lucia. Except for the use of gloves (68 percent), more than 90 percent of respondents were aware of all the required measures to reduce the risk of contracting COVID-19 (Figure 1). More importantly, this knowledge is similar among poor and non-poor households, and in urban and rural areas. While people know these preventive measures, they may not necessarily be practiced (Figure 2): although almost all households knew that washing hands is an effective preventive measure, for instance, around 10 percent of households reported they did not wash their hands more often than pre-COVID. This underscores the importance of continuous reminders through information campaigns. Nevertheless, social distancing as a preventive measure seems well adopted across income groups: nearly 94 percent of respondents reported that since March 13 they had avoided groups of more than 10 people and avoided handshakes.

Figure 1: Information Received on Preventive Measures

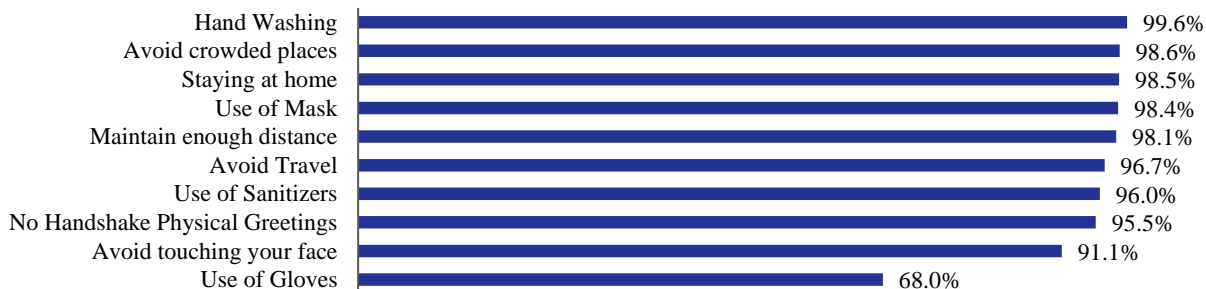


Figure 2: Adoption of Preventive Measures



The population is well-aware of government restrictions to curb the spread of the virus (Table 1). More than 60 percent of households report a curfew or lockdown in their area, and some 50 percent report that they were advised to stay at home. Thirty percent of households experienced travel restrictions, with more in rural areas (35.6 percent). In terms of income generating activities, 16 percent of households experienced business closures, with 18 percent of poor households and a much higher 29.4 percent of rural households experiencing them. School closures also accompanied business closures, with 12 percent of households reporting closures. While 7.5 percent of households reported receiving Government food support, poor households (12.7 percent) and rural households (10.2 percent) were more likely to receive food support.

Table 1: Steps Taken by the Government or Local Authorities to Curb the Spread of COVID-19

	National	Non-Poor	Poor	Rural	Urban
Curfew or lockdown	62.3%	61.2%	65.5%	68.9%	59.4%
Advised citizens to stay at home	49.4%	49.2%	49.9%	45.9%	51.0%
Restricted travel within the area	29.8%	29.9%	29.4%	35.6%	27.2%
Disseminate knowledge	23.6%	23.9%	22.7%	33.2%	19.4%
Closed businesses	16.3%	15.8%	18.0%	29.4%	10.6%
Restricted international travel	13.6%	13.2%	15.0%	25.5%	8.5%
Closed schools	12.1%	12.3%	11.8%	13.1%	11.7%
Provide food to the needy	7.5%	5.7%	12.7%	10.2%	6.3%
Open clinics/testing locations	3.3%	3.6%	2.4%	3.1%	3.3%

Note: poverty status is imputed using SWIFT.

3.2. Socio-economic effects of the COVID-19 pandemic and related policies

The Saint Lucia COVID-19 Phone Survey collected data on the impact of the COVID-19 pandemic on (a) Access to basic needs and services, (b) Education, (c) Employment, (d) Income, and (e) Food insecurity. The following sections highlight the main results.

3.2.1 Access to basic needs and services

Since the COVID-19 outbreak, a significant number of households, especially the poor, reported limited access to food and basic services. About 9 to 22 percent of households that needed rice, ground provision⁵, flour, or medical treatment could not access these necessities. For all basic needs, poor households were worse off than non-poor households (

Figure 3a, b). About one-tenth of households who needed to buy either flour (11 percent) or rice (9.2 percent) were unable to do so, and this was worse for poor and rural households. While one-tenth of non-poor households did not have access to food, almost one-fifth of poor households did not have access to either flour or other ground provisions.

Lack of access to food and non-food goods/services was not so much due to movement restrictions as to lack of money and access to cash. While about 74.1 percent of poor households could not purchase flour because of lack of money or access to cash, only 66.7 percent of non-poor households gave the same reason (Table 2). While rural households were affected to a larger extent in their ability to purchase flour, ground provisions, and rice compared to urban households, urban households had more difficulty accessing medical treatment when needed (

⁵Ground provisions are traditional root vegetable staples such as yams, sweet potatoes, dasheen root, and cassava.

Figure 3b).

Figure 3: Lack of Access to Food and Basic Services

Figure 3a. (Poor/Non-Poor)

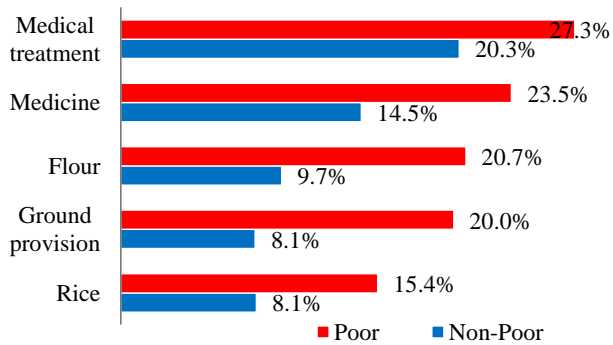
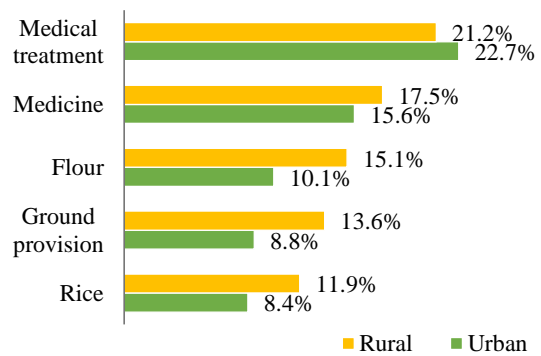


Figure 3b. (Rural/Urban)



Note: Figures show percentage of people in need of the item who could not access it.

Across all items except for access to medical treatment, poor households were more likely to be cash-constrained, while non-poor households were more likely to be supply/availability-constrained. This

was true in both rural and urban areas. The urban and non-poor were more likely to be affected by mobility restrictions to go outside to buy flour (urban 5.3 percent, non-poor 4.5 percent), rice (urban 6.5 percent, non-poor 6.4 percent), and other ground provisions (urban 10.4 percent, non-poor 11.1 percent). This is consistent with evidence from other countries where the urban non-poor have been facing more severe lockdowns due to higher population densities and access to bigger markets that can accommodate more people. It is important to note that in rural areas and among the poorest, limited access to ground provisions was a result of “local markets not operating” (Table 2), which is also consistent with findings in other countries.

Table 2: Reasons for Not Being Able to Access Basic Needs

Flour	National	Non-Poor	Poor	Rural	Urban
No money / no cash	68.8%	66.7%	74.1%	57.5%	76.1%
Shops have run out of stock	14.9%	19.2%	3.9%	20.8%	11.0%
Long lines	3.9%	4.1%	3.3%	2.1%	5.1%
Restrictions to go outside	3.8%	4.5%	1.9%	1.5%	5.3%
Rice					
No money / no cash	72.1%	67.1%	85.5%	67.2%	75.2%
Shops have run out of stock	12.9%	16.9%	2.4%	20.5%	8.2%
Restrictions to go outside	5.3%	6.4%	2.4%	3.4%	6.5%
Long lines	4.8%	4.2%	6.3%	1.3%	7.0%
Ground provisions					
No money / no cash	47.4%	42.5%	58.4%	45.6%	48.5%
Shops have run out of stock	8.9%	12.1%	1.7%	15.7%	4.6%
Restrictions to go outside	9.8%	11.1%	6.7%	8.8%	10.4%
Local markets not operating	11.4%	11.1%	12.1%	14.4%	9.5%
Increase in price	12.9%	13.8%	11.0%	7.0%	16.7%
Medical treatment					
Lack of money	39.6%	31.9%	56.8%	45.4%	36.1%
No medical personnel available	36.6%	37.0%	35.6%	21.2%	46.0%
Facility was full	1.5%	2.2%	0.0%	0.0%	2.4%
Fear of going to public places	4.5%	6.5%	0.0%	5.5%	3.8%
No transport	3.6%	5.2%	0.0%	9.5%	0.0%
Other(specify)	14.2%	17.3%	7.6%	18.4%	11.7%

About 15 percent of households who needed medicine could not purchase it, and 22 percent of households who required medical treatment could not access it post-COVID (

Figure 3b). Lack of money and the unavailability of medical personnel were the main reasons why households could not access medical treatment (Table 2). Again, poor households were more affected

than non-poor households: 27 percent of poor households and 20 percent of non-poor households could not access medical treatment (

Figure 3a).

3.2.2 Education

Despite some school closures, over 90 percent of households with children in school reported uninterrupted engagement in learning activities. About 37 percent of households have at least 1 member between the age of 5 and 18, which we use as a proxy for at least 1 member being enrolled in school (Figure 4). Among them, around 95 percent of households had experienced school closure due to the pandemic, but 90 percent reported no major disruption in learning activities. In the few households (4.5 percent) where children did not engage in any learning activity, the main reasons were lack of access to virtual classrooms, lack of take-home teaching aids and learning materials, and/or lack of knowledge on appropriate responses to school closures (

Table 3).

Figure 4: School Closing and Children’s Engagement in Learning Activities

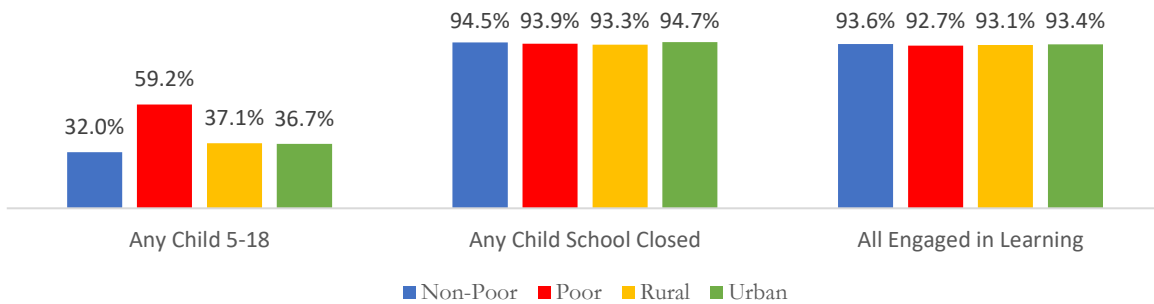


Table 3: Reasons for Children Not Being Able to Continue Education Due to COVID-19

	National	Non-Poor	Poor	Rural	Urban
Lack school materials	15.4%	11.7%	24.3%	48.7%	0.0%
No access to virtual classrooms	38.8%	28.3%	63.7%	19.4%	47.8%
Other (Specify)	45.8%	60.1%	12.0%	32.0%	52.2%

Note: Out of the 22 households that reported that their children could not continue education during COVID-19, 9 reported other reasons, which included: “does not want to take part in virtual classes”, “sufficient or no work has not been sent from school”, “only have one device at home”, “special needs child”, and “household head has no idea”.

3.2.3 Employment

Negative employment effects were spread across regions and income groups, with around 30 percent of respondents finding themselves without work post-COVID (Figure 5). We studied people who reported working before March 20, 2020, which we designated as the cut-off date for the onset of the pandemic. Among them, 73 percent were restricted due to business closures, which was highest among the non-poor (73.5 percent) and the rural (75.3 percent) (Table 4). Falling ill and/or being quarantined as a result of the pandemic also contributed to higher unemployment, especially among the poorest (7 percent), and among urban households (2.5 percent). Considering that about 35 percent of respondents were unemployed before March 20, 2020 (Figure 5), additional unemployment resulting from the pandemic may exert significant negative economic effects going forward.

Figure 5. Employment Status

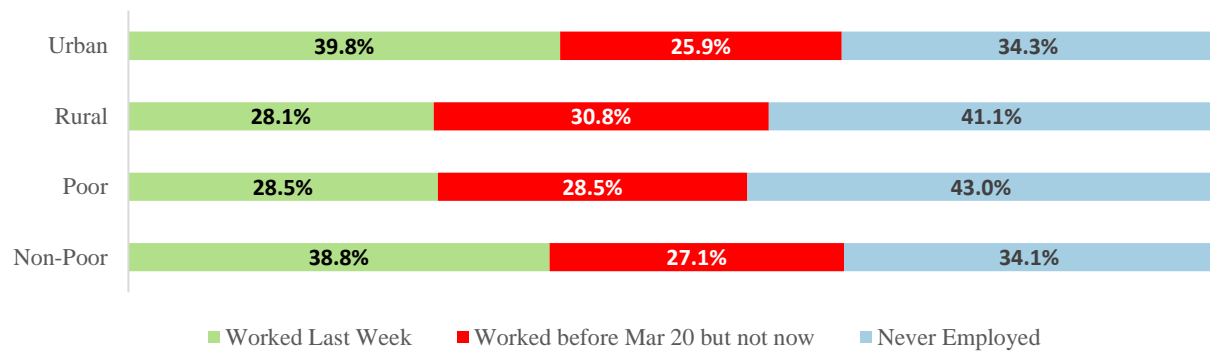
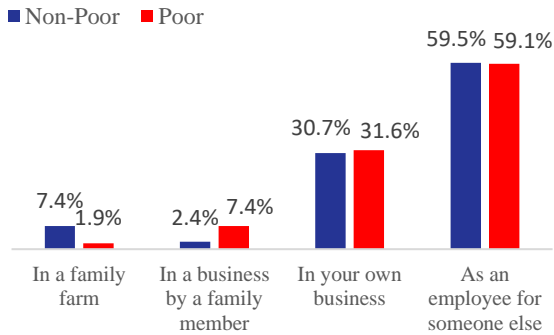


Table 4: Reasons for Not Working Since March 20

	National	Non-Poor	Poor	Rural	Urban
Business Closure due to COVID-19	73.2%	73.5%	72.2%	75.3%	72.1%
Laid-off – Business Continues	3.7%	4.9%	0.0%	2.6%	4.3%
Seasonal Worker	3.0%	3.7%	1.0%	2.6%	3.3%
Ill or Quarantined	2.4%	0.9%	7.0%	2.3%	2.5%
No Farm – Lack of Inputs	1.6%	1.2%	2.6%	2.3%	1.2%
Business Closure due to other reasons	1.0%	0.7%	2.2%	1.1%	1.0%
Cannot travel	0.9%	0.6%	1.6%	2.5%	0.0%

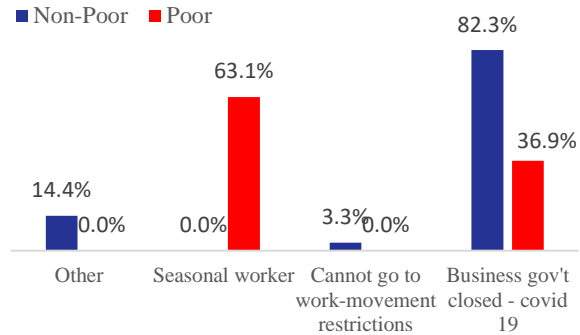
Around 60 percent of the poor and the nonpoor were wage employees pre-COVID, and about 10 percent of them could not go to their work place in the week prior to the survey (Figure 6, 7). This was due to business closures, which 82.3 percent of the non-poor and 36.9 percent of the poor reported as the primary reason for short-term unemployment. Only 59.1 percent of the poor and 59.5 percent of the non-poor were wage employees pre-COVID. About 63.1 percent of the poor wage workers were seasonal workers, suggesting the poor are more likely to work informally than the non-poor (Figure 7). More importantly, two-thirds of these workers did not receive their usual compensation, with 30.8 percent reporting not being compensated at all while another 28.9 percent were only partially compensated.

Figure 6: Employment Status in the Week Prior to the Survey



Note: 390 respondents who worked last week answered this question

Figure 7: Reasons for Not Being Able to Go to the Workplace in the Week Prior to the Survey



Out of 240 respondents who were working as an employee or as an apprentice, 27 were unable to go to work as usual in the week prior to the survey.

Wage workers were more likely to access employer provided health insurance and paid sick leave during the COVID period, but that was mostly true only for the non-poor. About 70.9 percent of wage employees working after March 20 had provisions for paid sick leave, and 46.4 percent had access to employer-provided health insurance. The poor were least likely to have access to either of these benefits (Figure 8). Upon the outbreak of COVID-19, on average, employers informed their employees of the upcoming business closure more than 4 days in advance. The notice for poor and rural households was on average 3.7 days and 3.1 days respectively, compared to the 4.2 days for the non-poor and 4.5 days for urban households (Figure 9). This pattern suggests a more rapid response by enterprises employing the non-poor and urban workers.

Figure 8: Employer Benefits

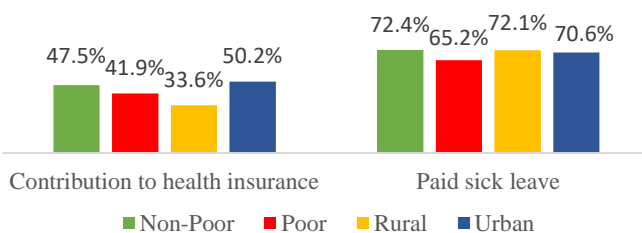
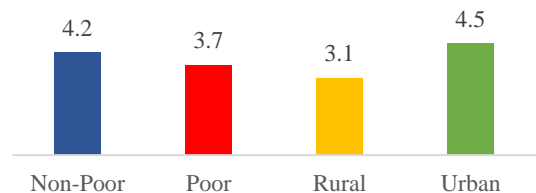


Figure 9: Advance Notice (number of days)



Sector of Employment

As expected, the crisis most negatively affected workers dependent on the retail, hotel, and accommodation sector (Table 5). Prior to March 20, about 30 percent of respondents worked in the wholesale, retail, hotels, and restaurants sector, but this dropped to 19.3 percent 6 weeks into the pandemic. Work reduction was significant across regions and poverty status. Employment in the wholesale, retail, and hotels/restaurants sector dropped by 11 percentage points (from 34 to 23 percent) for urban households, and 12 percentage points (from 19.3 to 7.7 percent) among rural households. Employment in the sector decreased 16 percentage points among poor households (from 33 to 17

percent), and 9 percentage points among the non-poor (from 29 to 20 percent). In contrast, service sectors such as education, health, and personal and domestic services maintained higher employment, except in rural areas.

The share of agricultural employment increased post-COVID, particularly for non-poor and urban households. Although all sectors recorded job losses, the agricultural sector experienced the least decrease among the 4 major economic sectors in Saint Lucia (whole sale, retail, hotels and restaurants; personal services; agricultural; and construction). As a result, the share of agricultural sector employment increased from 14 percent pre-COVID to 19 percent post-COVID. All segments of the population—poor, nonpoor, urban, and rural—experienced similar trends.

Table 5: Share of Sector of Employment Before and After March 20th

	National	Non-Poor	Poor	Rural	Urban
Before March 20, 2020					
Wholesale, retail, restaurants, hotels etc.	29.9%	29.0%	33.0%	19.3%	34.0%
Personal services	24.0%	21.5%	32.9%	29.6%	21.8%
Agriculture	14.3%	13.3%	17.8%	16.2%	13.6%
Construction	13.2%	15.0%	6.7%	16.6%	11.9%
Transport and communication	3.9%	3.0%	7.0%	3.4%	4.1%
Mining, manufacturing	1.7%	2.0%	0.6%	2.8%	1.3%
Professional services/ finance	5.5%	6.8%	0.8%	4.1%	6.1%
Utilities	2.5%	3.2%	0.0%	1.9%	2.7%
Public administration	5.0%	6.1%	1.2%	6.0%	4.6%
Time of survey					
Wholesale, retail, restaurants, hotels etc.	19.3%	20.0%	16.6%	7.7%	23.0%
Personal services	25.1%	22.4%	36.0%	27.3%	24.4%
Agriculture	18.9%	18.0%	22.6%	20.9%	18.3%
Construction	14.6%	15.8%	9.7%	18.1%	13.5%
Transport and communication	3.3%	1.2%	11.7%	4.0%	3.0%
Mining, manufacturing	1.6%	1.9%	0.0%	3.2%	1.1%
Professional services/ finance	7.2%	8.7%	1.2%	7.4%	7.2%
Utilities	3.1%	3.8%	0.0%	2.5%	3.3%
Public administration	7.0%	8.1%	2.3%	9.0%	6.4%

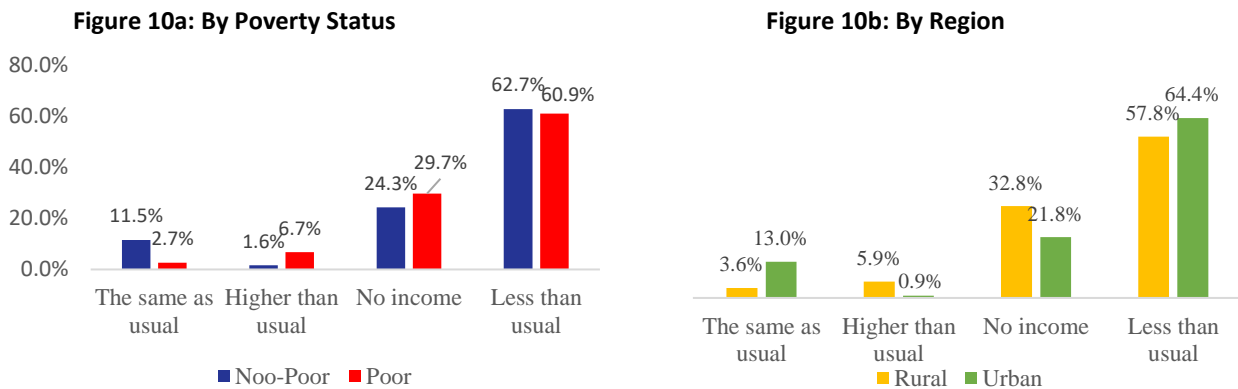
The main categories included: 1) agriculture, hunting, fishing, 2) mining, manufacturing, 3) electricity, gas, water supply, 3) construction, 4) buying & selling goods, repair of goods, hotels & restaurants, 5) transport, driving, post, travel agencies, 6) professional activities: finance, legal, analysis, computer, real estate, 7) public administration, 8) personal services, education, health, culture, sport, domestic work, others.

Employment shares increased in professional services, utilities, and public administration—sectors that do not require personal contact—across regions and the nonpoor, but the change was negligible for the poor (Table 5). For example, the share of respondents working in professional services increased from 6.8 percent to 8.7 percent for the non-poor, from 4.1 percent to 7.4 percent for rural respondents, and from 6.1 percent to 7.2 percent for urban respondents, but there was almost no change for the poor. Employment shares in utilities and public administration also increased for the nonpoor and in rural and urban areas, but again the change was negligible for the poor; this likely reflects that the poor cannot easily obtain jobs in these sectors.

Household enterprises

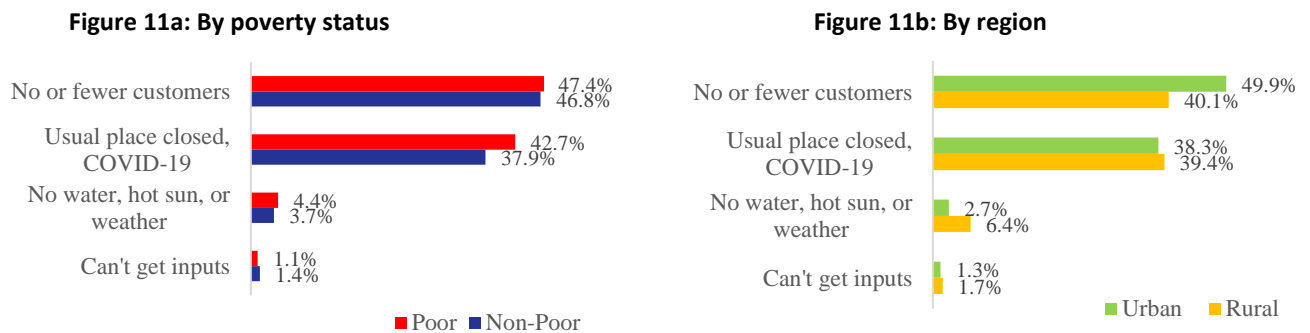
The onset of the pandemic exerted significant negative effects on households dependent on family businesses. Around 60 percent of these households experienced a decline in business revenue, and almost 30 percent reported zero income since March 20 (Figure 10a, b). Overall, a quarter (25 percent) of respondents depended on household enterprises for their income. Around 32.8 percent of rural and 29.7 percent of poor households reported zero income from family businesses in the month prior to the survey. An additional 57.8 percent of rural and 60.9 percent of poor households reported earning less than they did pre-COVID. Interestingly, the most vulnerable households (poor and rural) were more likely to experience complete income losses, while the less vulnerable (urban and non-poor) were more likely to report some income loss (Figure 10b).

Figure 10: Income Changes from Family Business



Respondents most commonly cited COVID-related workplace closures and “none or fewer customers” as primary reasons for household income loss, with the poor suffering more from closures. For “losing customers due to the COVID-19 pandemic”, there was almost no difference between the poor (47.4 percent) and the non-poor (46.8 percent). About 42.7 percent of the poor compared to 37.9 percent of the non-poor reported closure of their usual place of work as the reason for their loss in income (Figure 11a). Comparing regions, 49.9 percent of urban and 40 percent of rural households reported loss of customers for their income loss, while 38.3 percent of urban and 39.4 percent of rural households reported closure of their usual workplace (Figure 11b).

Figure 11: Reasons for Loss in Income from Family Business During COVID-19

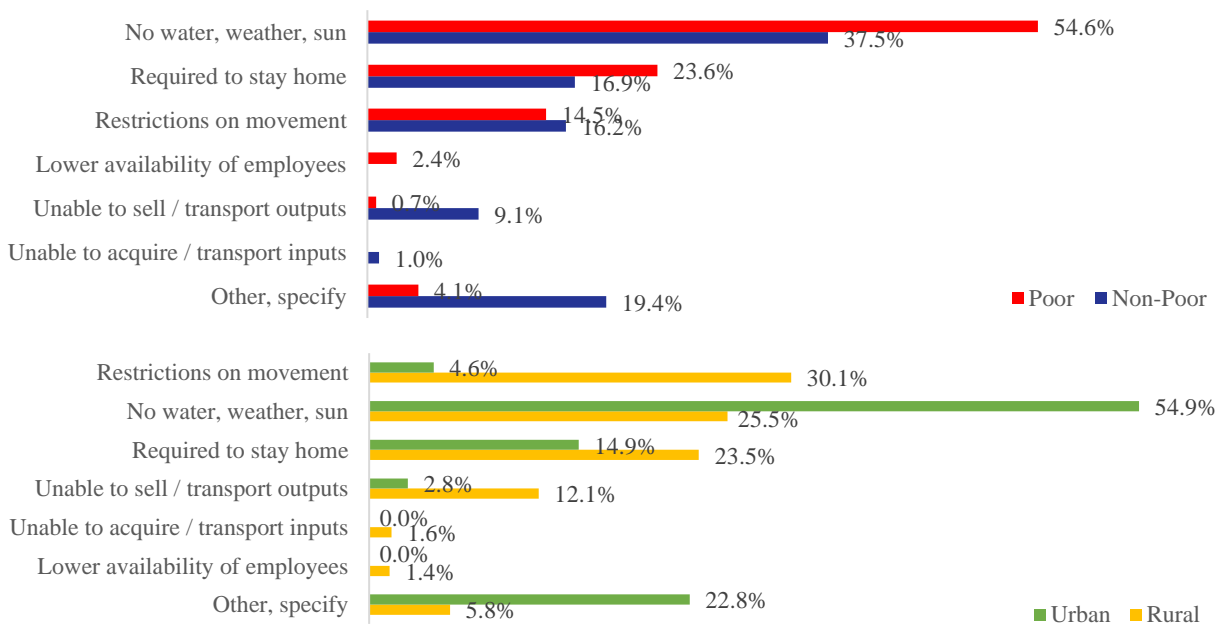


Note: Out of the 273 households who owned a family business, 244 reported either an income loss or no income. These 244 households answered this question

Household farming activities

About 28 percent of farming households could not perform normal farm activities. Nearly, half reported suffering from inclement weather and climate-induced shocks, but social distancing policies also negatively affected farmers: 34 percent of farming households who could not perform normal activities reported restricted movement or being required to stay at home as the reason. Households from rural areas or poorer households suffered more due to such mobility restrictions (Figure 12).

Figure 12: Main Reasons for Not Being Able to Perform Normal Farm Activities



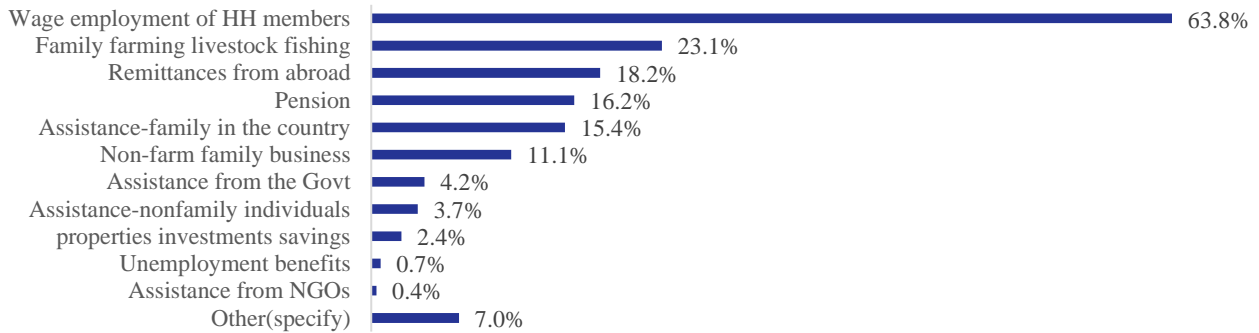
Note: Out of 1093 respondents, 301 reported at least one household member working on the farm before March 20. Out of these 301 respondents, 217 reported they could continue performing farm work after March 20. The 84 respondents who stopped working since March 20 answered this question

3.2.4 Income

Respondents were asked about their main source of livelihood in the 12 months prior to the survey. In terms of labor income, a majority of households depended on wage income (63.8 percent), followed by income from farming, fishing, and livestock (23 percent). As for non-labor income, 18.2 percent of households reported receiving international and/or domestic remittances, while 16.2 percent also had household members receiving pension benefits (

Figure 13).

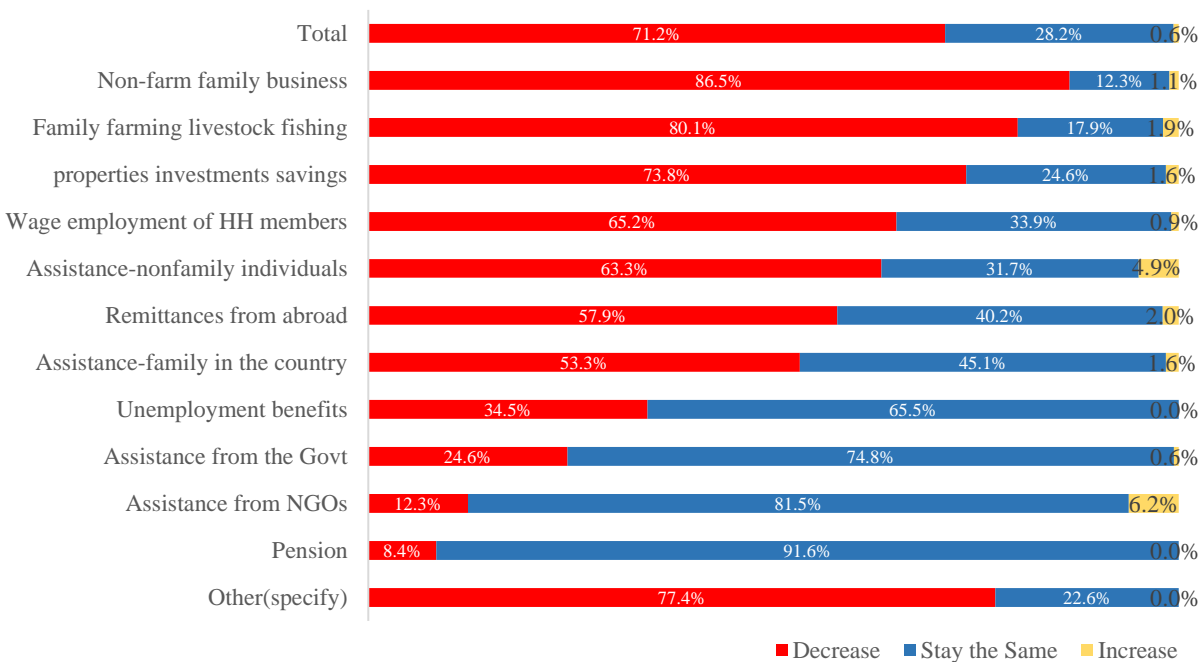
Figure 13: Main Source of Livelihood



Labor-income

Almost three-quarters of households reported experiencing labor income losses post-COVID, with the poorest faring the worst. To determine changes in household income we asked respondents whether their household’s income from their main source of livelihood increased, decreased, or stayed the same post-COVID. We also asked about aggregate household income post-COVID. Around 71.2 percent of households reported experiencing some income loss (Figure 14).

Figure 14: Income Changes from the Main Source of Livelihood (%)



About 86.5 percent of households dependent on non-farm family businesses suffered income losses, and this was as high as 91.9 percent for poor and 93.6 percent for rural households (Table 6). In farming, around 80 percent of family businesses experienced reduction in revenue, with poor (80.9 percent) and rural (80.4 percent) households suffering slightly more compared to non-poor and urban households.

Table 6. Percentage of Households with a Decrease in Income

	National	Non-Poor	Poor	Rural	Urban
Non-farm family business	86.5%	85.8%	91.9%	93.6%	82.9%
Family farming livestock fishing	80.1%	80.0%	80.9%	80.4%	80.0%
Properties investments savings	73.8%	75.5%	50.8%	70.4%	76.0%
Wage employment of HH members	65.2%	63.6%	72.6%	67.2%	64.4%
Assistance-nonfamily individuals	63.3%	58.5%	75.1%	58.2%	73.4%
Remittances from abroad	57.9%	57.5%	59.6%	75.1%	46.8%
Assistance-family in the country	53.3%	51.8%	60.3%	55.3%	51.8%
Unemployment benefits	34.5%	36.6%	0.0%	79.0%	26.0%
Assistance from the Govt	24.6%	28.4%	16.8%	17.7%	28.6%
Assistance from NGO's	12.3%	12.3%		41.6%	0.0%
Pension	8.4%	8.4%	7.3%	13.6%	6.9%
Total	71.2%	70.0%	76.7%	76.7%	68.7%

Almost 65.2 percent of households experienced a decline in wage employment of their members, and about 63.3 percent of households reported reduced assistance from non-family individuals. For both of these sources of income, poor and urban households suffered greater losses. Additionally, 57.9 percent of households experienced a decrease in international remittance income, 53.3 percent reported less assistance from family within the country, and about 34.5 percent reported a decrease in unemployment benefits. Moreover, one-quarter of households reported lower Government (24.6 percent) or NGO assistance (12.3 percent), and lower pension income (8.4 percent).

Finally, 73.8 percent of households depending on property and investment income and savings reported reduced income, with larger effects for urban (76 percent) and non-poor (75.5 percent) households.

3.2.5 Food insecurity

Households became more food insecure post-COVID, with poor households twice as likely to run out of food compared to non-poor households. We asked 3 out of the 8 food insecurity questions from the FAO modules; specifically, “During the last 30 days, was there a time when (a) The household ran out of food because of a lack of money or other resources, (b) The respondent or any other adult in their household were hungry but did not eat because there was not enough money or other resources for food, and (c) The respondent or any other adult in their household went without eating for a whole day because of a lack of money or other resources”. About 30 percent of households reported there had been a time when they had run out of food because of lack of money, while 14 percent reported at least one household member starved because there was not enough money or other resources for food (

Figure 15a, 4b). Rural households (34 percent) were more affected than urban households (28 percent). One-quarter of non-poor households reported a time when their household had run out of food in the 30 days prior to the survey, compared to almost 50 percent of poor households.

Figure 15: Food Insecurity

Figure 15a. Food insecurity by region

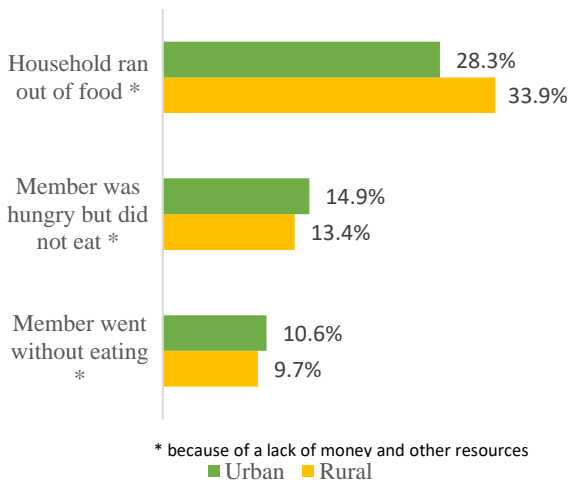
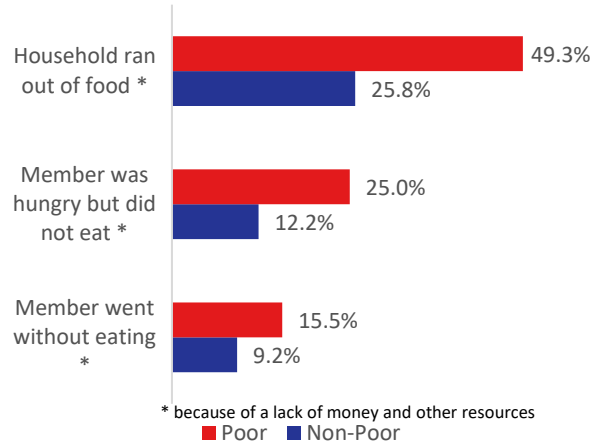


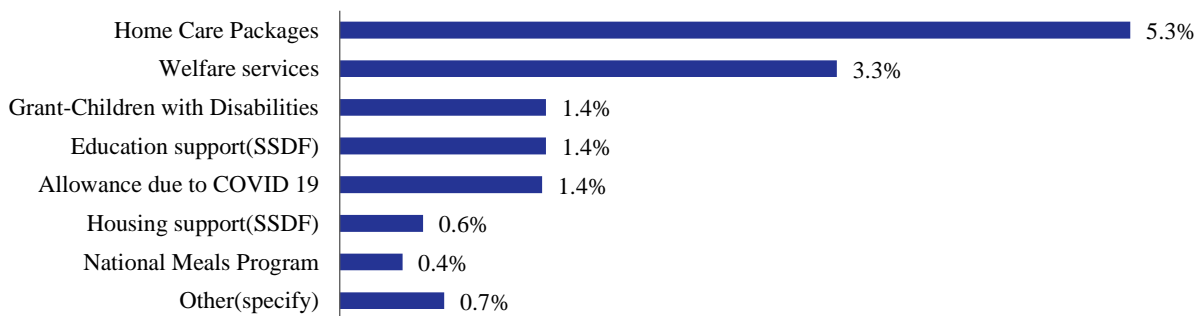
Figure 15b. Food insecurity by poverty status



3.3. Public Government and NGO transfers

To gauge household resilience, the survey gathered information on household access to public transfers through safety net programs. This information is particularly important for vulnerable households that faced negative labor income shocks, food insecurity, or were already struggling to survive (that is, the poor). We asked respondents about access to on-going government transfer programs such as the National Meals Program, education support, grant for children with disabilities, housing support, and, more importantly, subsistence allowance to assist COVID-19-affected people. About 12 percent of households received at least one Government social program. However, no program reached more than 6 percent of households (Figure 16).

Figure 16: Transfers/Non-Labor Income Support from the Government



Poorer households have higher access to social transfers such as welfare services, home care packages, and education support (

Table 7). But the coverage of these programs is low. Also, some programs do not cover the poor more than the nonpoor. For example, allowances made for COVID cover the nonpoor only slightly more than the poor, possibly because job losses in nonpoor and urban households are much bigger than for the poor (

Table 7).

Table 7: Government Social Programs Coverage

	National	Non-Poor	Poor	Rural	Urban
Home Care Packages	5.3%	4.7%	8.2%	5.8%	5.1%
Welfare services	3.3%	1.9%	9.9%	3.4%	3.3%
Grant-Children with Disabilities	1.4%	1.5%	1.0%	1.5%	1.3%
Education support (SSDF)	1.4%	0.8%	4.2%	1.7%	1.2%
Allowance due to COVID 19	1.4%	1.6%	0.3%	0.7%	1.7%
Housing support (SSDF)	0.6%	0.7%	0.0%	0.0%	0.8%
National Meals Program	0.4%	0.4%	0.4%	0.2%	0.5%

COVID-19 allowances were more likely to go to food-insecure households. These include households that had run out of food, had at least one member being hungry, and had at least 1 member not eating for an entire day in the month prior to the survey (Table 8). Moreover, COVID-related allowances were well-targeted to households who experienced total income loss after March 20 (

Figure 17).

Table 8: Government Social Programs Coverage and Food Insecurity

	HH RUN OUT FOOD	HH DID NOT RUN OUT FOOD	MEMBER WAS HUNGRY BUT DID NOT EAT	NO MEMBER HUNGRY BUT NOT EAT	MEMBER WENT WITHOUT EATING	NO MEMBER WENT WITHOUT EATING
Housing support(ssdf)	0.7%	0.5%	1.4%	0.4%	1.9%	0.4%
Education support(ssdf)	3.0%	0.7%	6.1%	0.6%	4.1%	1.1%
Welfare services	3.5%	3.3%	6.3%	2.8%	8.5%	2.8%
Grant-children with disabilities	2.0%	1.1%	3.5%	1.0%	3.3%	1.2%
Allowance due to COVID 19	2.9%	0.7%	3.6%	1.0%	5.0%	0.9%
Home care packages	8.5%	4.0%	6.3%	5.2%	7.1%	5.1%
National meals program	0.7%	0.3%	1.4%	0.3%	2.1%	0.2%
Other(specify)	0.3%	0.9%	0.0%	0.8%	0.0%	0.8%

Figure 17: Government Social Programs Coverage and Income Decrease

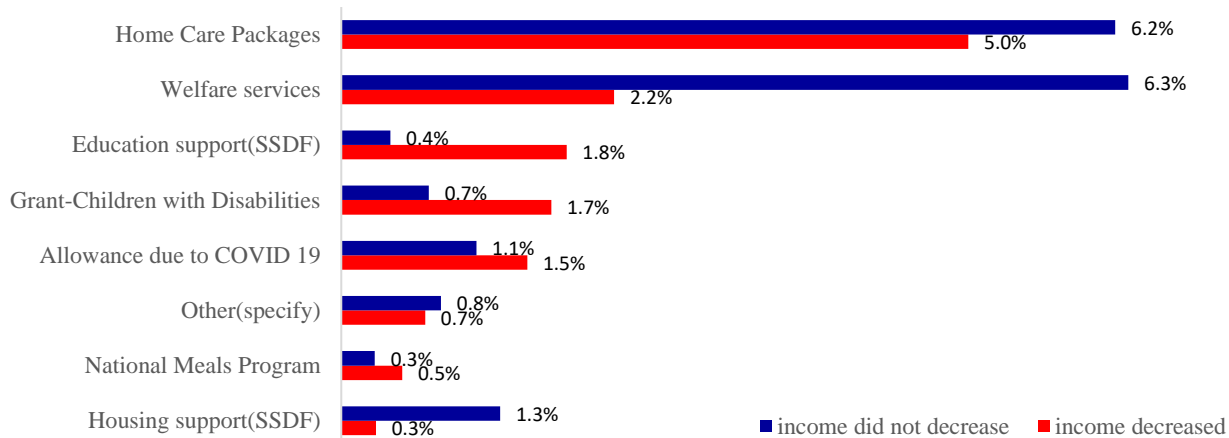
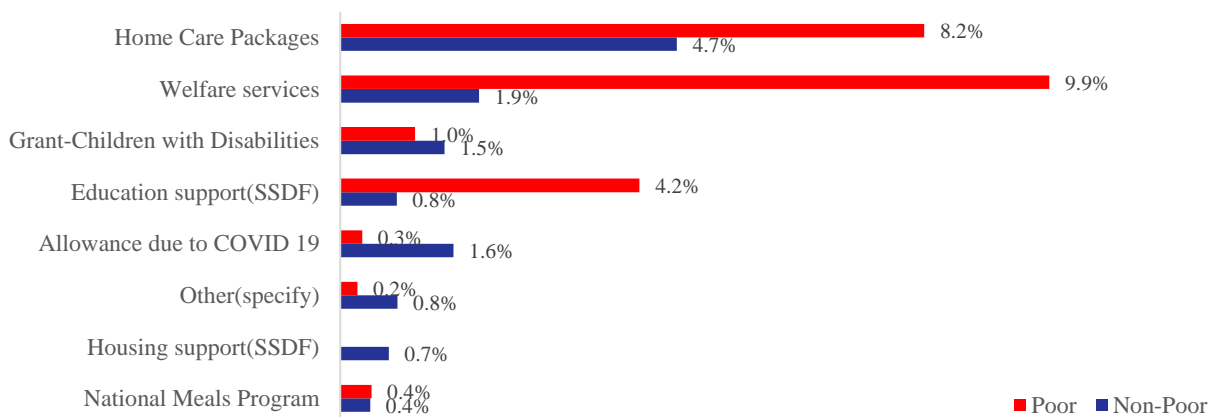


Figure 18: Safety Nets – Comparison Between the Poor and Non-Poor



4. Conclusions

Saint Lucians are aware of the various measures to reduce the risk of contracting COVID-19, and have adopted social distancing measures. Government enforced policies to curb the pandemic, such as curfews or lockdowns, have reached 62 percent of households.

The COVID-19 pandemic has hindered people’s ability to access basic needs—such as food products like rice, flour, ground provisions, as well as medical treatments—and poor households are more negatively affected compared to the non-poor. The pandemic has widely affected children’s education, with 90 percent of households with children having to stop school activities due to the pandemic, however, more than 90 percent of households with children whose schools closed were able to continue learning activities remotely.

The pandemic has had a significant effect on employment, with 43 percent of Saint Lucians who worked before March 20 not being able to work the week before our phone survey. Households also experienced significant income losses, with 71.2 percent of households reporting a decrease in income from their main source of livelihood. Family businesses also widely suffered income losses (60 percent), with many reporting complete income loss (30 percent). Non-farm family businesses suffered widely: about 5.4

percent of farm households were not able to work after March 20, mainly due to weather-related reasons but also by pandemic-related reasons.

Although government social program coverage is very low, COVID-19 support programs were more likely to reach poor and food insecure households in the month prior to the survey.

References

Lee, S. (2006). "Propensity Score Adjustment as a Weighting Scheme for Volunteer Panel Web Surveys." *Journal of Official Statistics*. 22 (2): 329–349.

Rosenbaum, P. R., and D. B. Rubin. (1983). "The Central Role of the Propensity Score in Observational Studies for Casual Effects." *Biometrika*70 (1): 41-55.

Rosenbaum, P.R., and D.B. Rubin. (1984). "Reducing Bias in Observational Studies using Subclassification on the Propensity Score." *Journal of the American Statistical Association*. 79: 516-524.

Schonlau M., A. van Soest, A. Kapteyn, and M. Couper (2006). "Selection Bias in Web Surveys and the Use of Propensity Scores." RAND Labor and Population Working Paper series 229. RAND Pittsburgh, PA

ANNEX

A1: Poverty projection prior to the COVID-19 outbreak (preliminary)

This section reports estimates from the Survey of Well-being via Instant, Frequent Tracking (SWIFT) module-based poverty simulations and explains the methodology and major results. **For this round of the phone survey, we designed the SWIFT-module to reflect the prevalence of poverty prior to the COVID-19 outbreak.** Utilizing the SWIFT methodology and the PSM re-weighting strategy, we estimate a poverty headcount of about 26.22 percent in the first round of the 2020 COVID-19 HFPS. This is slightly lower than the national poverty rate estimated using the 2016 Household Budget Survey (HBS) and coherent with economic growth experienced in 2018 and 2019. The second round will modify the SWIFT-module to update poverty estimates and capture the current situation.

Table A1. Poverty Rate Estimation

	Mean	Std. Err.	[95% Confidence Interval]	
HBS	26.86%	1.68%	23.57%	30.15%
COVID-19 HFPS	26.22%	1.62%	23.01%	29.43%

A2: SWIFT Methodology

SWIFT is a rapid poverty assessment tool. Developed in-house by the WBG's Poverty and Equity Global Practice, it can produce accurate, timely, cost-effective, and user-friendly poverty data. The use of SWIFT can improve availability and frequency of official poverty statistics.

Developing a consumption or income model is critical for SWIFT because the reliability of poverty estimates is heavily dependent on how accurately the SWIFT model **can project household expenditure or income data**. To build the model, we assume the relationship between household income or expenditure and poverty correlates is linear, and we assume some projection error.⁶ This relationship is shown in equation (1):

$$\ln y_h = x_h' \beta + u_h \quad (1)$$

Where:

- $\ln y_h$ refers to a natural logarithm of household income or expenditure of household h ;
- x_h is a $(k \times 1)$ vector of poverty correlates of household h ;
- β is a $(k \times 1)$ vector of coefficients of poverty correlates;
- k is a number of variables;
- and u_h represents a projection error.

⁶This does not imply that SWIFT uses a linear model, but rather means that the formula is linear in terms of variables created in the dataset. Since some variables can be squares of other variables, SWIFT's formula can be non-linear. One such example is that we use household size and the square of household size to capture the quadratic effect of larger household sizes.

A SWIFT survey collects poverty correlates. To improve accuracy of projections, SWIFT adopts approaches used in machine learning, poverty mapping, and multiple imputation. More details are available the guideline for SWIFT (Yoshida, et al., 2015).⁷ Applying the SWIFT model developed from the 2016 HBS, we simulate household-level consumption for each household in the current sample. By applying a proper weight (calculated from the PSM method described below), and by comparing each household’s predicted consumption level with the national poverty line, households whose imputed consumption falls below the poverty line are classified as “poor”.

Table A2. Summary Statistics for SWIFT Variables - HBS and COVID-19 HFPS

Variables	HBS		COVID-19 HFPS		Minimum value	Maximum value
	Number of observations	Mean	Number of observations	Mean		
Urban=1	1,490	0.698017	1,093	0.693665	0	1
Household size	1,490	3.073561	1,093	2.969080	1	12
Household Size squared	1,490	0.134824	1,093	0.121167	0.01	1.44
Gender of household head	1,490	0.59514	1,093	0.601048	0	1
Household owns a freezer	1,489	0.132583	1,093	0.236407	0	1
Has internet access	1,488	0.382206	1,093	0.414519	0	1
Drinking water-piped into dwelling	1,488	0.457491	1,093	0.644960	0	1
Dependency ratio ⁸	1,490	0.326554	1,093	0.335186	0	1
Household owns a washing machine	1,489	0.565031	1,093	0.632267	0	1
Household owns a tank	1,489	0.238246	1,093	0.378269	0	1
Household owns a television	1,489	0.820191	1,093	0.752159	0	1
Wood or timbre walls	1,488	0.127564	1,093	0.090302	0	1
Electric or gas stove	1,489	0.915293	1,093	0.978919	0	1
Wood or concrete walls	1,488	0.182054	1,093	0.198289	0	1
Ownership of dwelling/has a title	1,488	0.294245	1,093	0.308930	0	1
Piped drinking water access	1,488	0.076129	1,093	0.061798	0	1
Household owns a tablet	1,489	0.21466	1,093	0.513308	0	1
Household owns jewelry	1,489	0.142977	1,093	0.241689	0	1
Household owns a refrigerator	1,489	0.808708	1,093	0.862793	0	1
Number of rooms	1,488	3.575525	1,093	2.566510	0	20

⁷ Yoshida, N., R. Munoz, A. Skinner, C. Kyung-eun Lee, M. Brataj, W. Durbin, D. Sharma, and C. Wieser. (2015). SWIFT Data Collection Guidelines version 2. The World Bank.

⁸ Ratio of household members younger than 16 and older than 65 years, and household size.

Household owns a heater	1,489	0.068281	1,093	0.136047	0	1
Gas used for cooking	1,488	0.941898	1,093	0.962765	0	1
Household owns lawn mower	1,489	0.077526	1,093	0.168827	0	1
Pit latrine toilet	1,488	0.18606	1,093	0.186053	0	1
Bottled drinking water	1,488	0.160076	1,093	0.151910	0	1

A3: Reweighting Strategy

To make all estimates nationally comparable, we applied a weight (reweight) calculated by combining the 2016 HBS together with the 2020 phone survey in Saint Lucia. The main assumption is that the probability of a household being selected to take the high-frequency phone survey (COVID-19 HFPS) and to be reached is solely determined by the selected households' characteristics. We used the 2016 HBS as a benchmark and compared the respondents' probability of being "selected" into the phone survey with the HBS probability. To plausibly estimate this probability for both surveys, we tried different combinations of variables (3 variables, 6 variables, etc., as listed in table A3), and divided all observations into 5 quintiles based on this predicted probability. We then made adjustments in weights – reweighting – by assigning a higher weight to the quintile of respondents that were underrepresented in terms of their "predicted probability" in the phone survey compared to the HBS, and underweighting those households that were overrepresented in the phone survey compared to HBS.

To see which reweighting model is the best, we compared summary statistics of five indicators in the COVID-19 HFPS calculated after reweighting with those of HBS. To do this, we selected variables that are unlikely to change over time; otherwise, the differences in summary statistics between the reweighted COVID-19 HFPS and the HBS could be true. From this point of view, we selected five indicators – household size, share of dependents, gender of household head, age of household head and share of the urban population – and compared means of these variables after reweighting in the COVID-19 HFPS and those of HBS (see table A3) and found that reweighting with a model with 6 variables is the best.

Table A3. Comparison of Reweighting models

HBS and reweighting models	Household size	Share of dependents	Gender of household head	Age of household head	Share of the urban population
HBS	3.073561	0.326554	0.59514	52.22312	0.710093
COVID-19 HFPS - 3 var	3.003013	0.329188	0.526358	54.47233	0.645488
COVID-19 HFPS - 6 var	3.038945	0.325478	0.597391	54.286	0.640388
COVID-19 HFPS - 9 var	3.032168	0.315346	0.588916	54.3379	0.601273
COVID-19 HFPS - 13 var	3.120887	0.316028	0.593857	54.39552	0.597279
COVID-19 HFPS - 16 var	3.135485	0.321001	0.592037	54.29601	0.601904
COVID-19 HFPS - 17 var	3.118342	0.32129	0.594633	54.3268	0.590431

Note: The 3-variable strategy included: urban, household size, and the share of dependents in the household (dependents are defined as teenagers younger than 15 and the elderly older than 65). The 6-variable strategy adds 3 more variables: household size squared, gender of the household head, and whether the household has internet access. The 9-variable strategy includes three more: whether the household collects drinking water from water pipes

into the dwelling, whether the household owns the land, whether the household has a washing machine. The 13-variable strategy adds another 4 variables: whether the wall of the dwelling is made of wood or timber, whether the wall of the dwelling is made of plywood, whether the household has an electric gas stove, and whether the household owns a refrigerator. The 16-variable strategy adds yet 3 more variables: household owning a freezer, whether the household collects drinking water from water pipes into yard or plot, and whether the household toilet type is pit-latrine. Lastly, the 17-variable strategy employs 1 more variable: whether the household uses bottled water as the main source of drinking water.

However, even with the best reweighting model, the share of urban population is different between the reweighted COVID-19 HFPS and HBS. To eliminate the gap, we conducted post-stratification— additional weight adjustments so that the population shares of districts become identical between the reweighted COVID-19 HFPS and the 2020 Saint Lucia Census.

Table A4 shows the comparison of the 5 aforementioned indicators after the district-level post stratification, with the urban share in the HBS being 0.698 and 0.694 in the COVID-19 HFPS. The other 4 variables also match satisfactorily in the 2 surveys, which suggest the validity of the weights we applied to the data.

Table A4. Reweighting after Calibration

	Household size	Share of dependents	Gender of household head	Age of household head	Share of the urban population
HBS	3.073561	0.326554	0.59514	52.22312	0.698017
COVID-19 HFPS	2.96908	0.335186	0.601048	54.52507	0.693665

A4: Additional Figures

Figure A1. Distribution of Regions

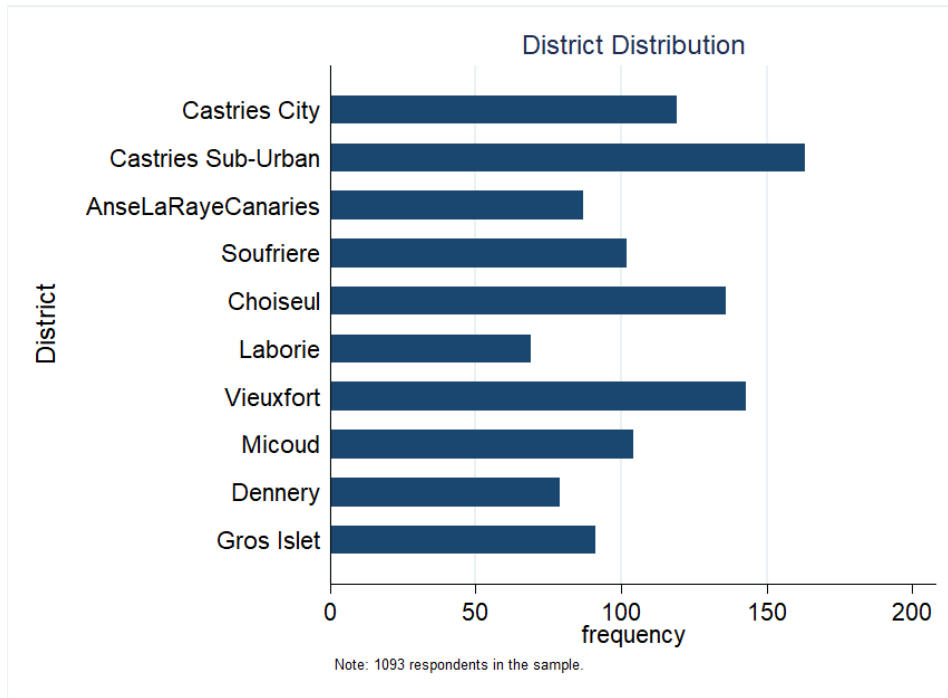


Figure A2. Reasons for Not Being Able to Access Flour

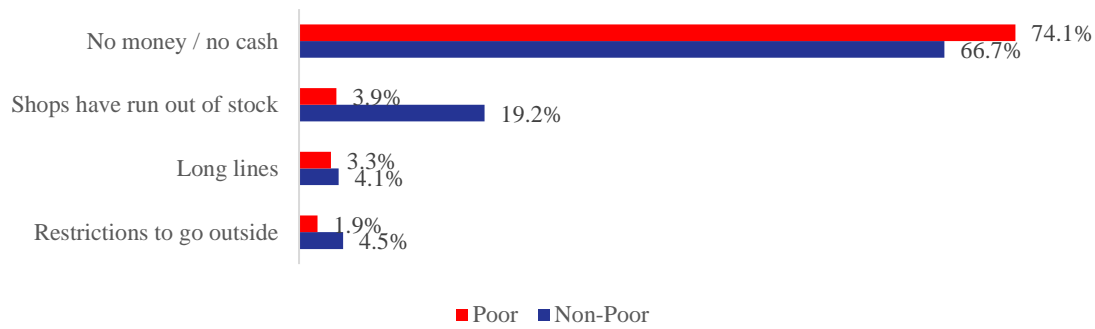


Figure A3. Reasons for Not Being Able to Buy Rice

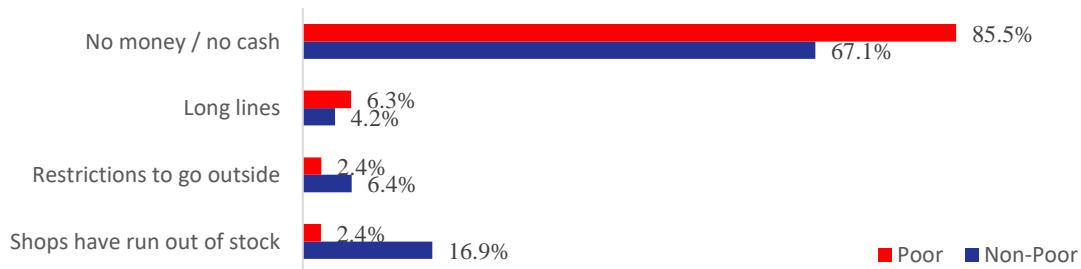


Figure A4. Reasons for Not Being Able to Buy Ground Provisions

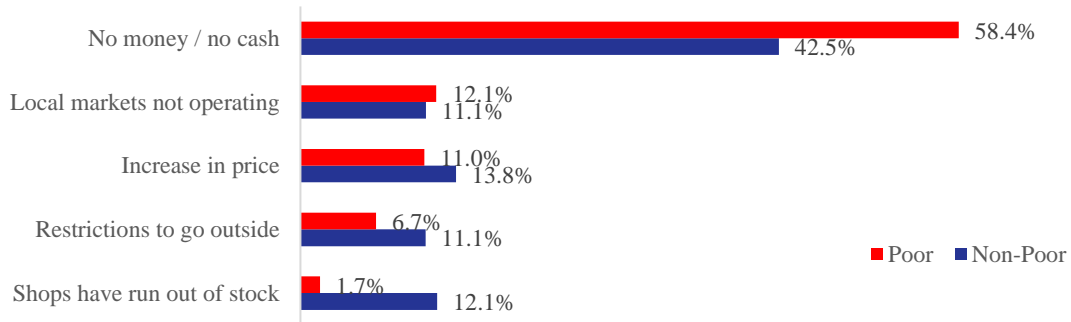


Figure A5. Reasons for Not Being Able to Access Medical Treatment

