fraym.

South Africa

COVID-19 Economic Effects on Vulnerable Groups

SEPTEMBER 2021

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Study Overview

The COVID-19 pandemic has shed light on structural gender inequities around the globe. Women were disproportionately affected by pandemic-related school closures and stay-at-home orders, giving up income-generating activities to take care of children and family members at home.

Through this report, Fraym expands its recent gender-transformative recovery work by conducting deep-dive analyses on the gendered economic effects of the COVID-19 pandemic in India and South Africa.

More specifically, Fraym explored whether specific groups may have been disproportionately impacted by the pandemic and analyzed the varying impacts and perceptions of the economic consequences of COVID-19.

This analysis provides an important opportunity to highlight specific challenges and other dynamics that may affect labor force participation and productive opportunities for specific types of women and marginalized groups.

Data collection for Fraym's April 2021 surveys in India and South Africa reached nearly 40,000 respondents overall, making this one of the largest gender-disaggregated and spatially-enabled studies of the pandemic. The survey data was weighted to reflect the most recent population parameters available from Statistics South Africa across gender, age, education, and provincial/state levels.

This report details findings from South Africa.

In South Africa, Fraym conducted a **nationally-representative survey** of 8,028 respondents from April 9 to April 23, 2021.

The survey captured how COVID-19 directly affected people's lives and their perceptions of how the pandemic and government response influenced the lives of others. In this report, Fraym conducts a deep-dive on how COVID-19 impacted the economic livelihoods of several specific vulnerable groups, including:

1 Female Entrepreneurs
Own their own businesses, either as freelancers or employing other individuals.

2 Unemployed Women
Not in the labor force prior to and during the pandemic.

3 Marginalized Women
Black/African, coloured, or Indian/Asian descent and who earn less than ZAR 10,000 per year (USD 700).

4 Informal Settlement Residents
Individuals living in tin shacks, slums, or shantytowns.

5 Unpaid Family Workers
Women who worked in their own household or a family business but did not receive pay.

Focus Population Groups for Analysis

Fraym identified different groups that have been disproportionately impacted by the pandemic and analyzed the varying impacts and perceptions of the economic consequences of COVID-19.

Female Entrepreneurs

Female entrepreneurs own their own businesses, either as freelancers or employing other individuals
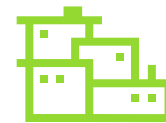
Unemployed Women

Unemployed women are not currently in the labor force. This excludes full time students, retirees and those with long term illnesses.

Marginalized Women

Marginalized women are defined as of black/African, coloured, or Indian/Asian descent and who earn less than ZAR 10,000 per year (USD $700).

Informal Settlement Residents

Individuals living in tin shacks, slums, or shantytowns.

Unpaid Family Workers

Unpaid family workers are defined as women who worked in their own household or a family business but did not receive pay (e.g., taking care of children, household agriculture, etc.).

Top 10 Takeaways

South Africans who are part of the specific examined groups—female entrepreneurs, unemployed women, marginalized women, unpaid family workers, and residents of informal settlements—have born a disproportionate share of the COVID-19 pandemic.

1 Female entrepreneurs were nearly twice as likely to have lost their jobs as a result of the pandemic compared to male entrepreneurs.

2 Durban, Johannesburg, and surrounding districts have witnessed the highest proportion of female entrepreneurs losing paid work (even before economic disruptions due to the July 2021 riots).

3 Unemployed women are over six times more likely to have lost income from a family business and four times more likely to have a household that lost income from a paid job than to live in a household with increased income.

4 Unemployed South African women are eight times more likely to believe that restrictions on selling in public places have impacted women more than men.

5 Around fifty percent of marginalized women reported losses of financial support from family members, signaling large economic spillover effects due to the pandemic.

6 Nearly one in five marginalized women experienced food insecurity before the pandemic, which doubled during COVID-19.

7 One in three residents of Cape Town informal settlements believe that restrictions on selling in public places have affected women more than men.

8 In the Khayelitsha Settlement, nearly all of residents reported a decrease in income during the COVID-19 pandemic.

9 About two thirds of South African districts (33 out of 52) reported that over half of their unpaid family workers increased their household tasks due to the pandemic.

10 Unpaid family workers are eight times more likely to live in households that lost income from a paid job and four times more likely to have lost remittances than to live in a household where these resources increased.

Female Entrepreneurs

Overview of Female Entrepreneurs

Female entrepreneurs are defined as women who reported owning their own businesses.

Most female entrepreneurs do not employ other people, and about half decreased hours as a result of the pandemic. Compared to male entre-preneurs, female entrepreneurs were also nearly twice as likely to lose their jobs entirely as a result of the pandemic. Over half live with at least one child five years or younger.

| Demographics	Female Entrepreneurs	Male Entrepreneurs
Described their businesses as…		
Employing other people	39%*	52%
Not employing other people (i.e. freelancing)	61%*	48%
Since the start of the pandemic, the number of hours worked at their business has…		
Increased	10%	15%
Stayed the same	20%	20%
Decreased	48%	52%
Lost their job entirely	16%*	9%
Marital Status[1]		
Single	38%	30%
Married	34%	43%
Live with the following		
One or more children aged 5 years or younger	54%	52%
One or more elderly adults (65+)	22%	20%

* Statistically significant difference

Note 1: Categories do not sum to 100 percent due to response options that are not shown.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.

Reductions in Paid Work Among Female Entrepreneurs

Durban, adjacent districts, and Johannesburg were among the areas where the highest proportion of female entrepreneurs lost paid work in the form of either lost jobs or reduced working hours. In these geographic areas, approximately three quarters of female entrepreneurs either lost their jobs or had their working hours reduced. These significant economic disruptions predate riots which took place in those same areas in July and August 2021.

CITY   Large cities   Areas with no population   Lesotho
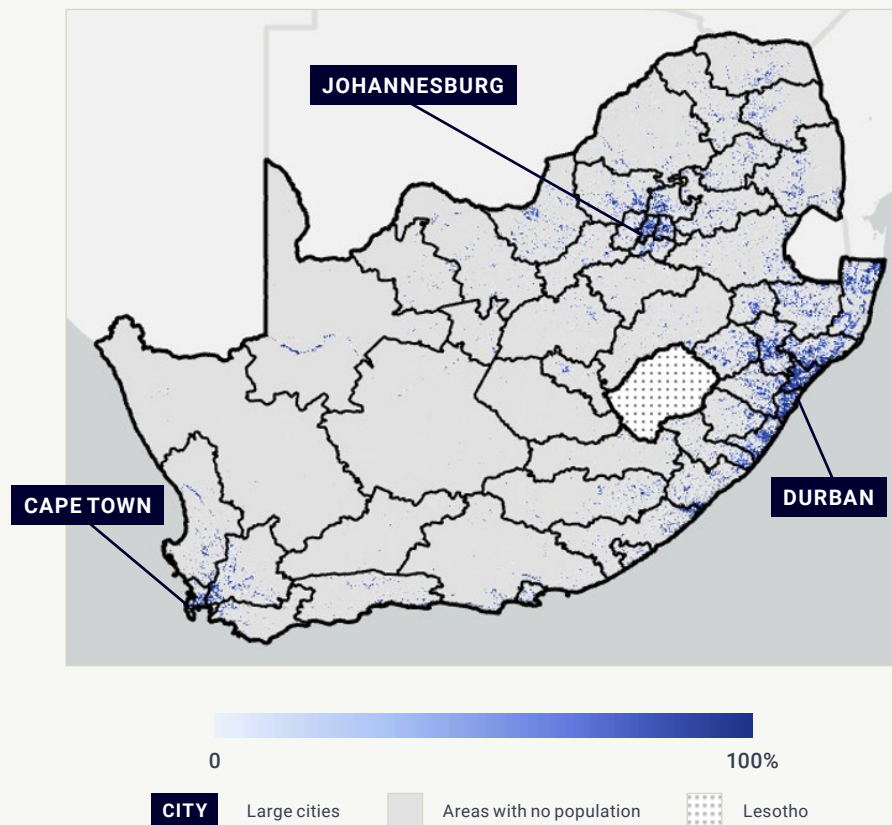
Districts with the _highest_ reductions in paid hours (%) due to COVID-19[1]		Districts with the _lowest_ reductions in paid hours (%) due to COVID-19[1]	
iLembe (*KwaZulu-Natal*)	78%	Gert Sibane (*Mpumalanga*)	51%
Z F Mgcawu (*Northern Cape*)	78%	Zululand (*KwaZulu-Natal*)	52%
O. R. Tambo (*Eastern Cape*)	76%	Frances Baard (*Northern Cape*)	52%
Overberg (*Western Cape*)	74%	Harry Gwala (*KwaZulu-Natal*)	53%
Amathole (*Eastern Cape*)	73%	Xhariep (*Free State*)	53%
Ugu (*KwaZulu-Natal*)	72%	Buffalo City (*Eastern Cape*)	55%
Ehlanzeni (*Mpumalanga*)	72%	Bojanala (*North West*)	55%
eThekwini (*KwaZulu-Natal*)	72%	Sekhukhune (*Limpopo*)	55%
Ekurhuleni (*Gauteng*)	71%	Mangaung (*Free State*)	57%
King Cetshwayo (*KwaZulu-Natal*)	70%	Dr Kenneth Kaunda (*North West*)	57%

Note: The Northwest Province has a predicted difference greater than 15 percentage points from the survey.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.
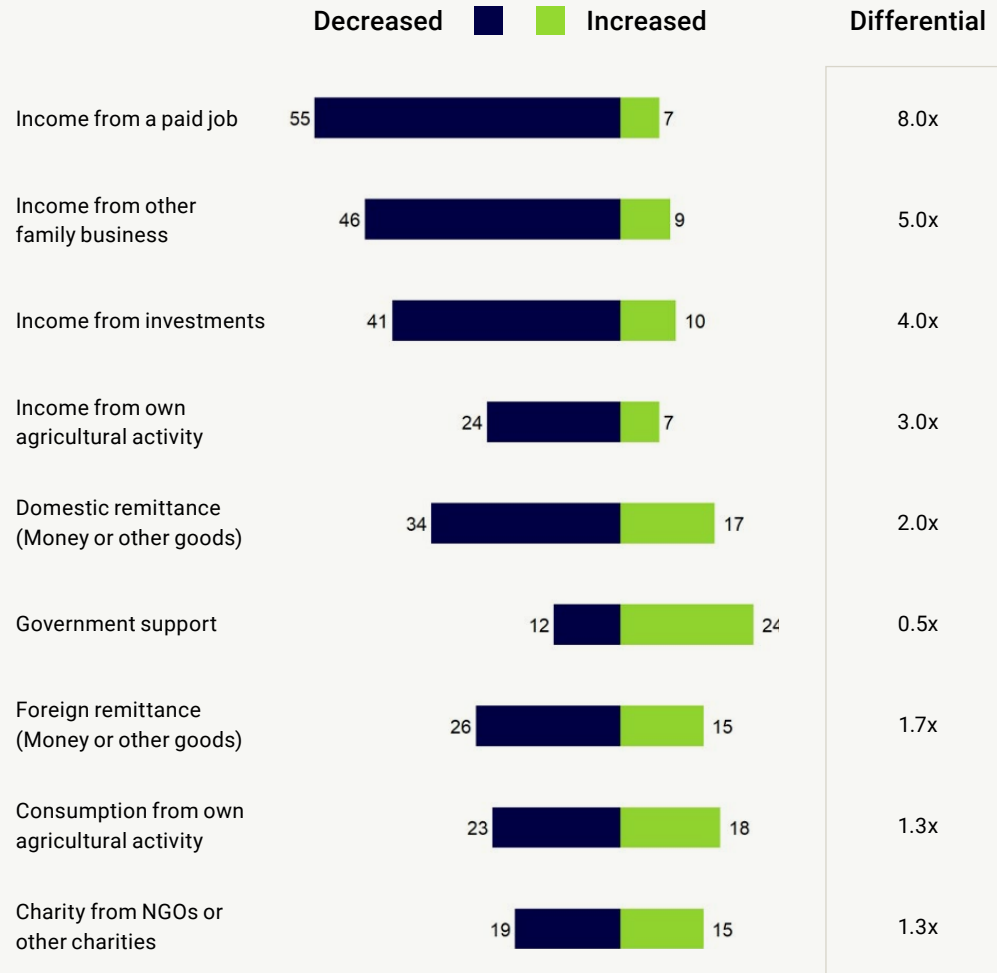
COVID-19 Income Impacts on Female Entrepreneurs

Over half of female entrepreneurs **lost household income from a paid job or other family business** as a result of the pandemic, eight times (8x) as many as those that increased income from that activity.

About five times (5x) as many female entrepreneurs lost income from other family businesses than increased their income from that activity.

Almost one quarter of female entrepreneurs reported an increase in government support as a result of the pandemic.

Percent of female entrepreneurs who reported the pandemic INCREASED / DECREASED their household resources, by differential

	Decreased ■	Increased ■	Differential
Income from a paid job	55	7	8.0x
Income from other family business	46	9	5.0x
Income from investments	41	10	4.0x
Income from own agricultural activity	24	7	3.0x
Domestic remittance (Money or other goods)	34	17	2.0x
Government support	12	24	0.5x
Foreign remittance (Money or other goods)	26	15	1.7x
Consumption from own agricultural activity	23	18	1.3x
Charity from NGOs or other charities	19	15	1.3x

Note: Respondents could report increased, decreased, or unchanged hours, as well as not a source of income/support.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.
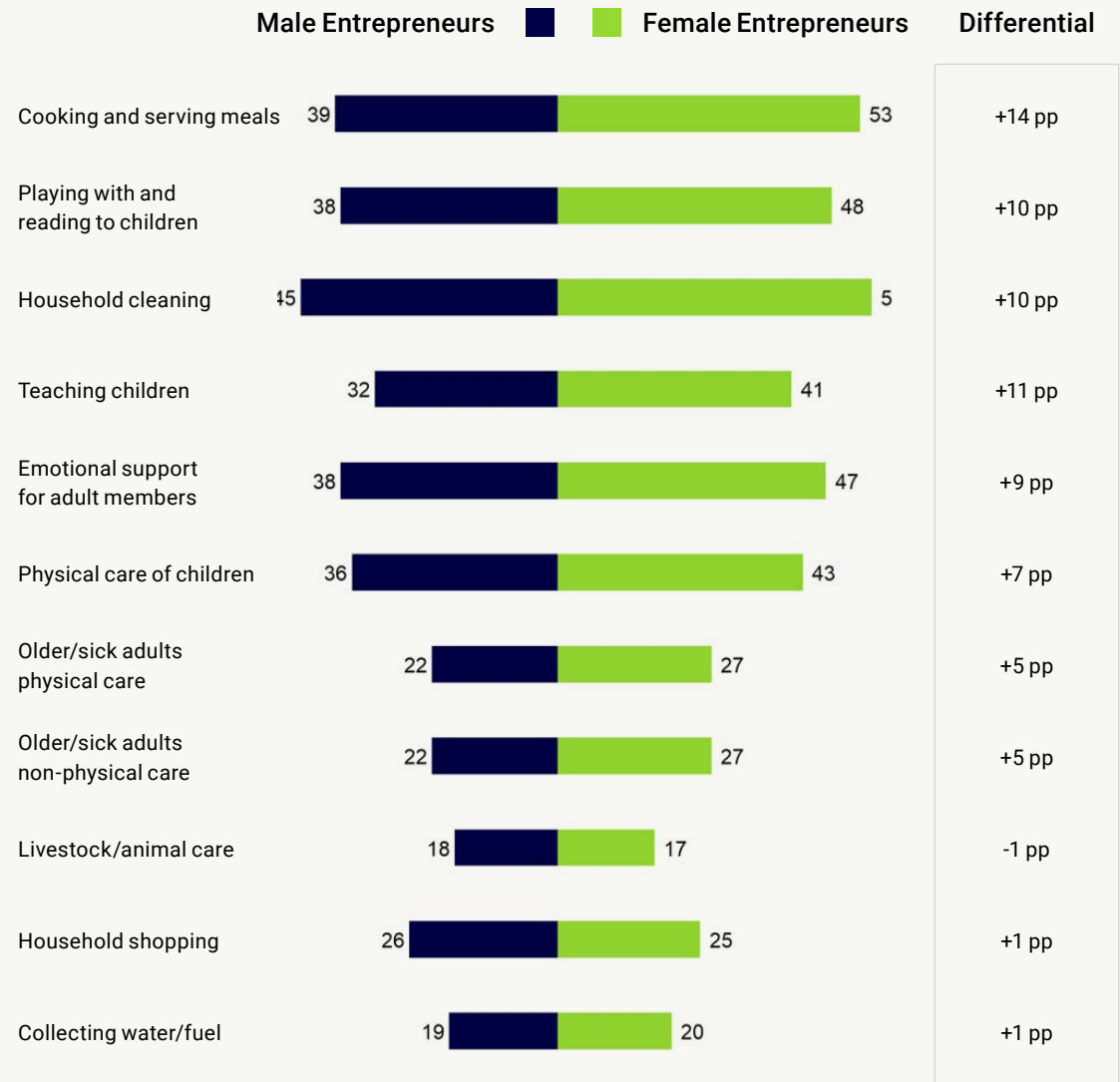
Entrepreneur Caregiving and Household Activities

In addition to disproportionate income effects, female entrepreneurs also were **more likely to dedicate extra time to domestic tasks** than their male counterparts. Over half of female entrepreneurs spent additional time cooking and cleaning as a result of the pandemic.

Compared to male entrepreneurs, a greater proportion of female entrepreneurs also spent more time on childcare and emotional support for other adult household members.

Percent of entrepreneurs reporting the COVID-19 pandemic INCREASED the hours they devote to household activities, by differential

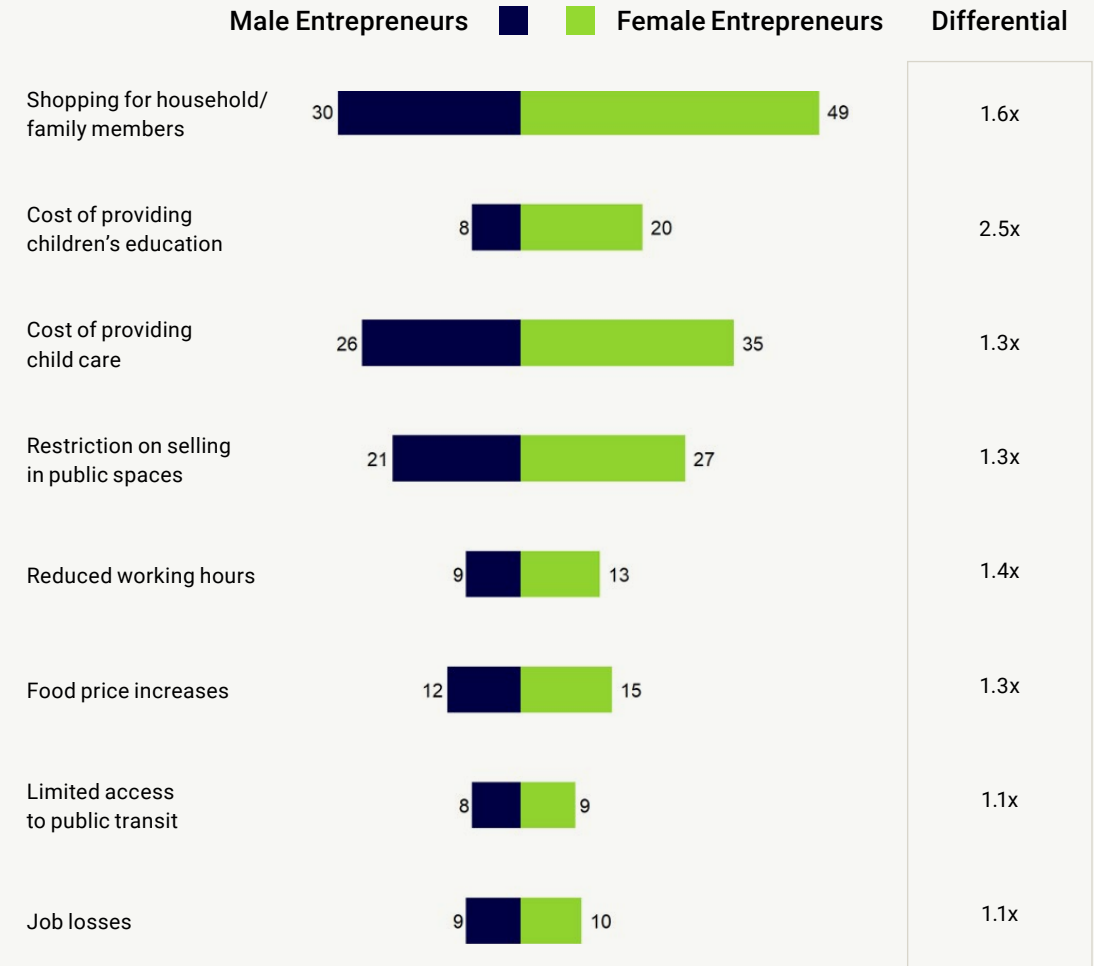| Activity	Male Entrepreneurs	Female Entrepreneurs	Differential
Cooking and serving meals	39	53	+14 pp
Playing with and reading to children	38	48	+10 pp
Household cleaning	45	5	+10 pp
Teaching children	32	41	+11 pp
Emotional support for adult members	38	47	+9 pp
Physical care of children	36	43	+7 pp
Older/sick adults physical care	22	27	+5 pp
Older/sick adults non-physical care	22	27	+5 pp
Livestock/animal care	18	17	-1 pp
Household shopping	26	25	+1 pp
Collecting water/fuel	19	20	+1 pp

Entrepreneurs' Perceptions of COVID-19 Economic Effects

Both male and female entrepreneurs believe that the COVID-19 pandemic had **greater economic effects on women** than on men.

Household/family shopping, costs associated with children's education and care, and restrictions on selling in public places are key areas where female entrepreneurs believe that women have been disproportionately affected.

In contrast, entrepreneurs generally believe that job losses and limited access to public transit have affected men and women roughly the same.

Percent of entrepreneurs that believed economic effects of COVID-19 affected WOMEN MORE, by differential

	Male Entrepreneurs	Female Entrepreneurs	Differential
Shopping for household/family members	30	49	1.6x
Cost of providing children's education	8	20	2.5x
Cost of providing child care	26	35	1.3x
Restriction on selling in public spaces	21	27	1.3x
Reduced working hours	9	13	1.4x
Food price increases	12	15	1.3x
Limited access to public transit	8	9	1.1x
Job losses	9	10	1.1x

Unemployed Women

Overview of Unemployed Women

Unemployed women are defined as those without a job prior to and during the pandemic, excluding full-time students, retirees, and those with long term illnesses.

Unemployed women are more likely to be younger than 35, black/African, and single compared to the overall population. Over 80 percent of unemployed women reported that they were actively looking for a job and available to start working.

| Demographics	Unemployed Women	Total Population[2]
Described their reason for not working as…		
Looking for a job and available to starting work	81%	--
Not looking for a job and not available to work	19%	--
Age[1]		
18-34	69%*	47%
35-64	30%*	46%
Race		
Black/African	78%*	58%
White	13%*	28%
Coloured/Indian	9%*	13%
Others	0%	1%
Marital Status[1]		
Single	67%*	46%
Married	18%*	33%
Live with the following		
One or more children aged 5 years or younger	70%*	57%
One or more elderly adults (65+)	48%	47%

* Statistically significant difference

Note 1: Categories do not sum to 100 percent due to response options that are not shown.
Note 2: Total population includes unemployed women.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.

Localized Concentrations of Unemployed Women

Johannesburg, Durban and Cape Town top the list of districts with the highest concentrations of unemployed women. The province of Gauteng has the most districts with high populations of unemployed women.

DISTRICT Highlighted districts   Areas with no population   Lesotho
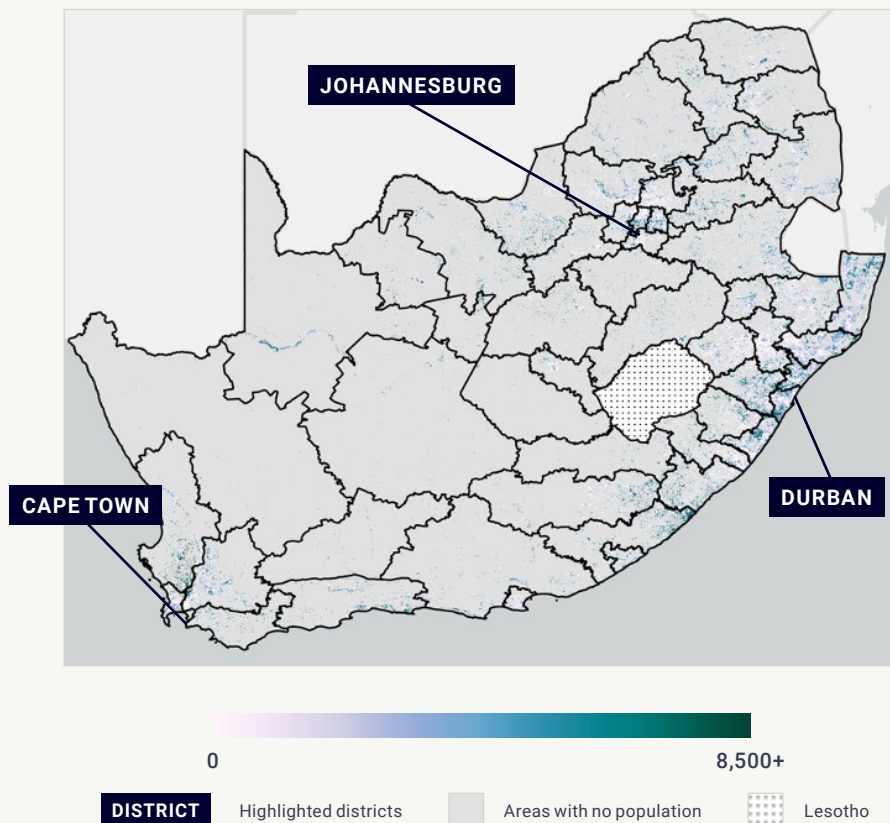
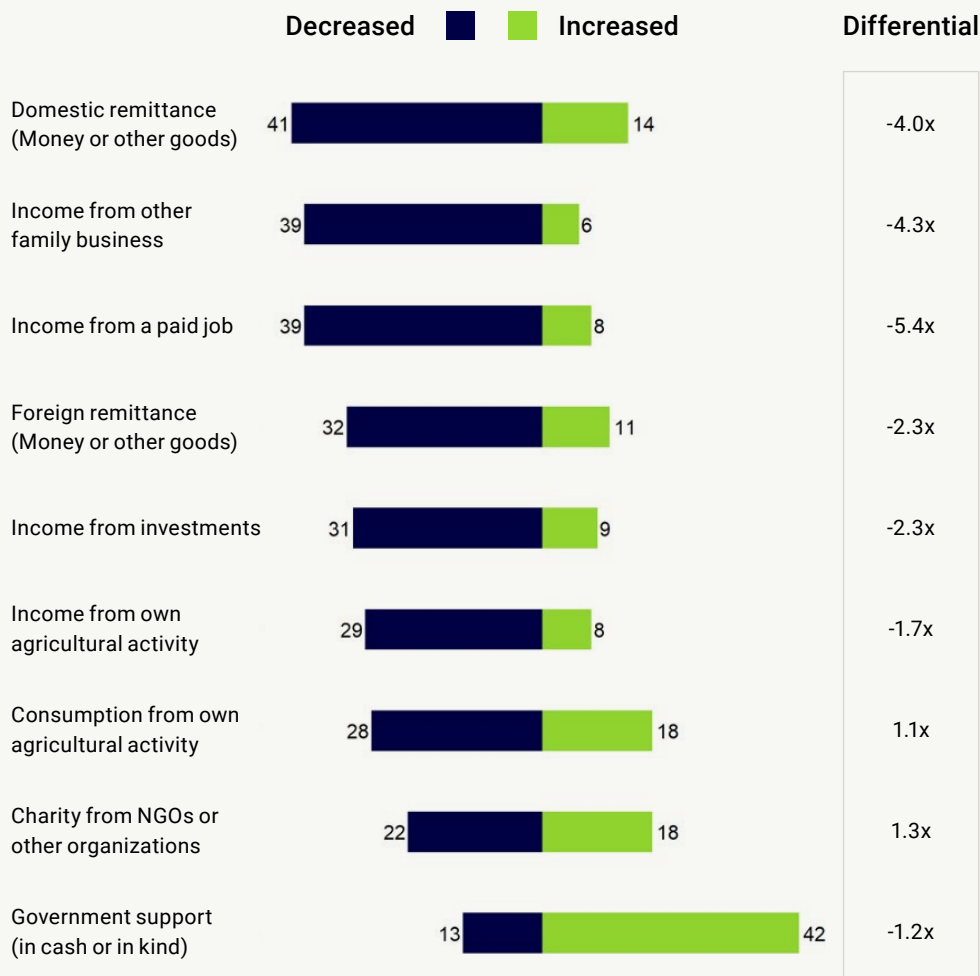| Districts with the _highest_ concentration of unemployed women		Districts with the _lowest_ concentration of unemployed women	
City of Johannesburg (*Gauteng*)	240,000	Central Karoo (*Western Cape*)	1,500
City of Cape Town (*Western Cape*)	164,000	Xhariep (*Free State*)	1,000
Ekurhuleni (*Gauteng*)	139,500	Namakwa (*Northern Cape*)	2,500
City of Durban (*KwaZulu-Natal*)	111,000	Pixley ka Seme (*Northern Cape*)	3,000
City of Tshwane (*Gauteng*)	89,500	Z F Mgcawu (*Northern Cape*)	5,000
Nkangala (*Mpumalanga*)	55,500	Overberg (*Western Cape*)	7,000
Capricorn (*Limpopo*)	47,500	Umzinyathi (*KwaZulu-Natal*)	7,200
Bojanala (*North West*)	44,000	Sisonke (*KwaZulu-Natal*)	7,500
O.R.Tambo (*Eastern Cape*)	42,500	Joe Gqabi (*Eastern Cape*)	9,300
Nelson Mandela Bay (*Eastern Cape*)	42,000	Uthukela (*KwaZulu-Natal*)	11,000

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COVID-19 Income Impacts on Unemployed Women

Unemployed women reported income shocks since the pandemic started due to **losses from family run businesses (both agricultural and non-agricultural), paid jobs, investments, as well as lower receipts of foreign and domestic remittances.**

Income increases were widely attributed to additional government support.

Percent of unemployed women that reported the pandemic INCREASED / DECREASED their household resources, by source


	Decreased ■	Increased ■	Differential
Domestic remittance (Money or other goods)	41	14	-4.0x
Income from other family business	39	6	-4.3x
Income from a paid job	39	8	-5.4x
Foreign remittance (Money or other goods)	32	11	-2.3x
Income from investments	31	9	-2.3x
Income from own agricultural activity	29	8	-1.7x
Consumption from own agricultural activity	28	18	1.1x
Charity from NGOs or other organizations	22	18	1.3x
Government support (in cash or in kind)	13	42	-1.2x

Note: Respondents could report increased, decreased, or unchanged hours, as well as not a source of income/support.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.

Localized Impacts of Food Insecurity for Unemployed Women

The sparsely populated districts of Namakwa, Central Karoo and poverty-stricken district of Uthungulu were among the areas where the highest proportion of unemployed women reported food insecurity[1] due to the pandemic. In these areas, roughly 2 out of 5 unemployed women report increased food insecurity.
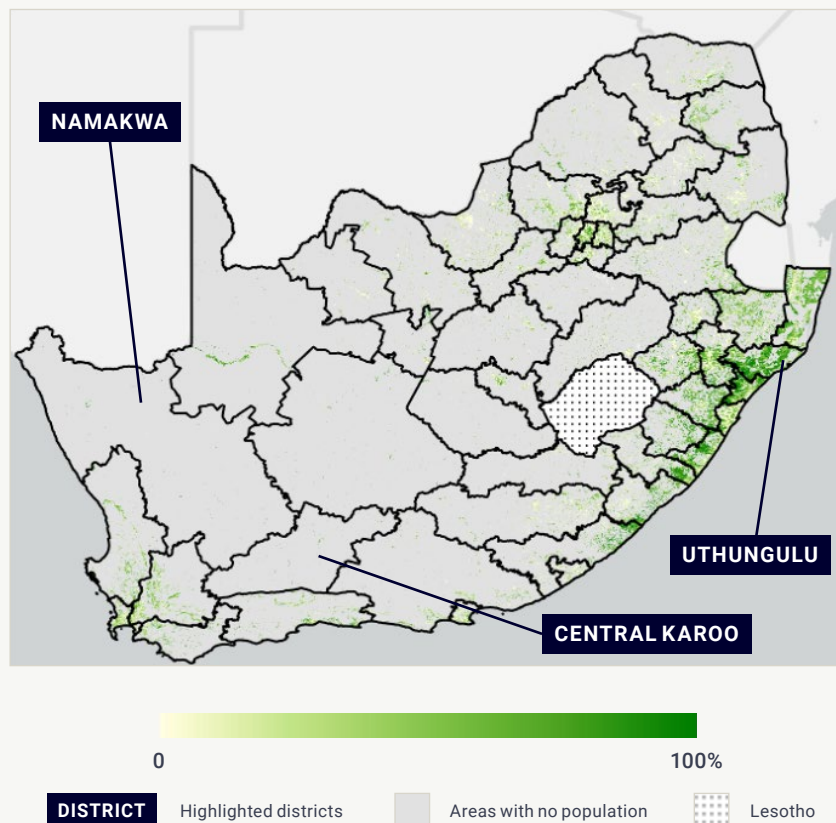
Districts with the *highest* increase in food insecurity (%) due to COVID-19 among unemployed women		Districts with the *lowest* increase in food insecurity (%) due to COVID-19 among unemployed women	
Namakwa *(Northern Cape)*	46%	Ngaka Modiri Molema *(North West)*	7%
Central Karoo *(Western Cape)*	43%	Sekhukhune *(Limpopo)*	9%
Uthungulu *(KwaZulu-Natal)*	39%	Capricorn *(Limpopo)*	10%
Pixley ka Seme *(Northern Cape)*	39%	Waterberg *(Limpopo)*	10%
Z F Mgcawu *(Northern Cape)*	38%	Gert Sibande *(Mpumalanga)*	11%
Sisonke *(KwaZulu-Natal)*	31%	Bojanala *(North West)*	11%
Overberg *(Western Cape)*	29%	Sedibeng *(Gauteng)*	11%
Amathole *(Eastern Cape)*	28%	Buffalo City *(Eastern Cape)*	12%
Umkhanyakude *(KwaZulu-Natal)*	27%	Nkangala *(Mpumalanga)*	12%
Mopani *(Limpopo)*	26%	John Taolo Gaetsewe *(Northern Cape)*	12%

NAMAKWA

UTHUNGULU

CENTRAL KAROO

0 — 100%

DISTRICT Highlighted districts   Areas with no population   Lesotho

Note 1: A person is considered food insecure because of COVID-19 if they answered "Yes" to the following question: "Did you or your household member go a whole day and night without anything because there was not enough food?" after the COVID-19 pandemic but "No" in February 2020, prior to the pandemic.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.
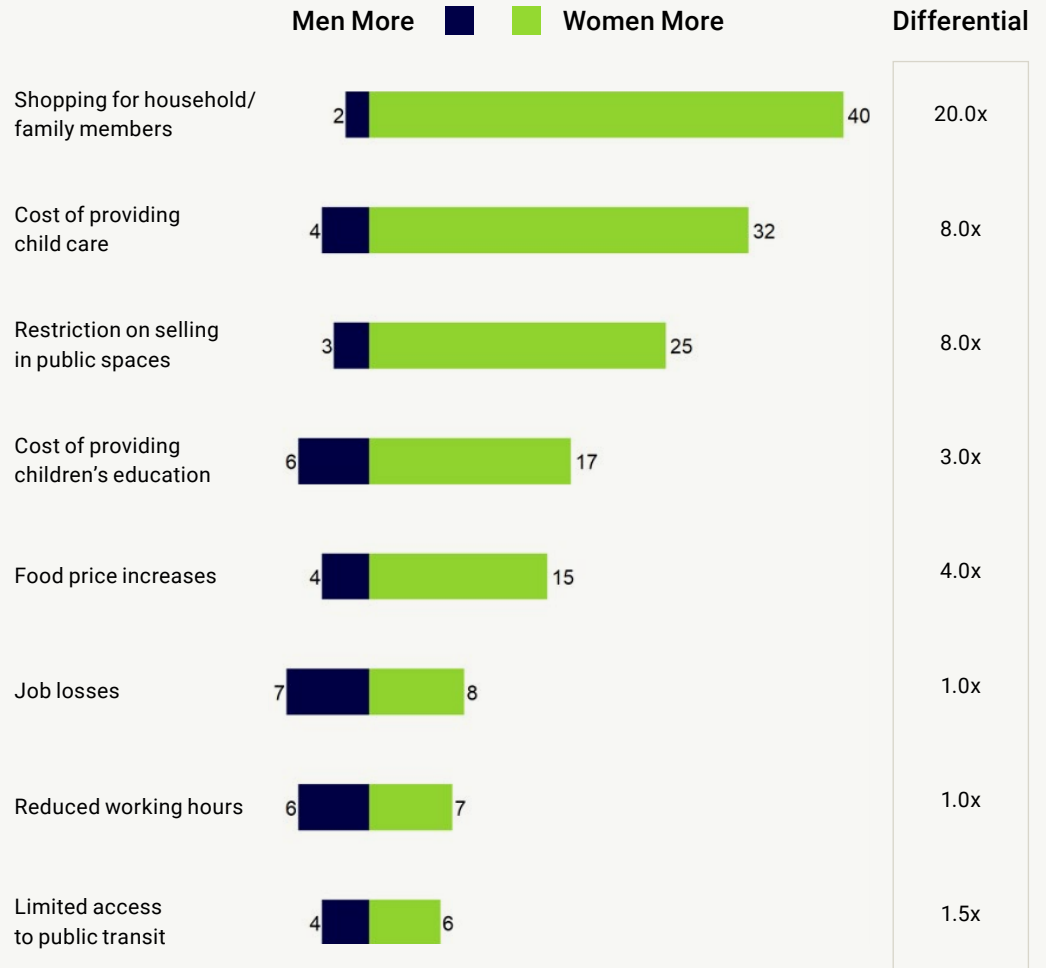
Unemployed Women's Perceptions of COVID-19 Economic Effects

Most unemployed women believe the economic effects of the pandemic affected men and women about the same. However, women are perceived to have been more affected than men along financial and housework activities.

This is particularly true for household activities that are disproportionally managed by women, including shopping for the household, the cost of providing child care and the cost of children's education.

Restrictions on selling in public spaces and food price increases were also perceived to have affected women more than men.

Percent of unemployed women who believed economic effects of COVID-19 affected _more

Men More ■   Women More ■   **Differential**

Activity	Men More	Women More	Differential
Shopping for household/family members	2	40	20.0x
Cost of providing child care	4	32	8.0x
Restriction on selling in public spaces	3	25	8.0x
Cost of providing children's education	6	17	3.0x
Food price increases	4	15	4.0x
Job losses	7	8	1.0x
Reduced working hours	6	7	1.0x
Limited access to public transit	4	6	1.5x

Marginalized Women

Overview of Marginalized Women

Marginalized women are those of Black/African, Coloured, or Indian/Asian descent who earn less than ZAR 10,000 per year (USD 700).

These women are twice as likely to be single and under the age of 35 compared to non-marginalized women. They are also much more likely to live with a child under the age of 5 and reporting not having worked prior to the pandemic. These young, single women have been more vulnerable to negative economic shocks associated with the COVID-19 pandemic.

Demographics	Marginalized Women	All Other Women
Employment		
Worked for pay	34%*	60%
Have own business	9%	10%
Unpaid family worker	14%*	10%
Did not work	43%*	20%
Age		
18-34	75%*	38%
35+	25%*	62%
Marital Status[1]		
Single	76%*	36%
Married	11%*	36%
Live with the following		
One or more children aged 5 years or younger	42%*	30%
One or more elderly adults (65+)	18%	18%

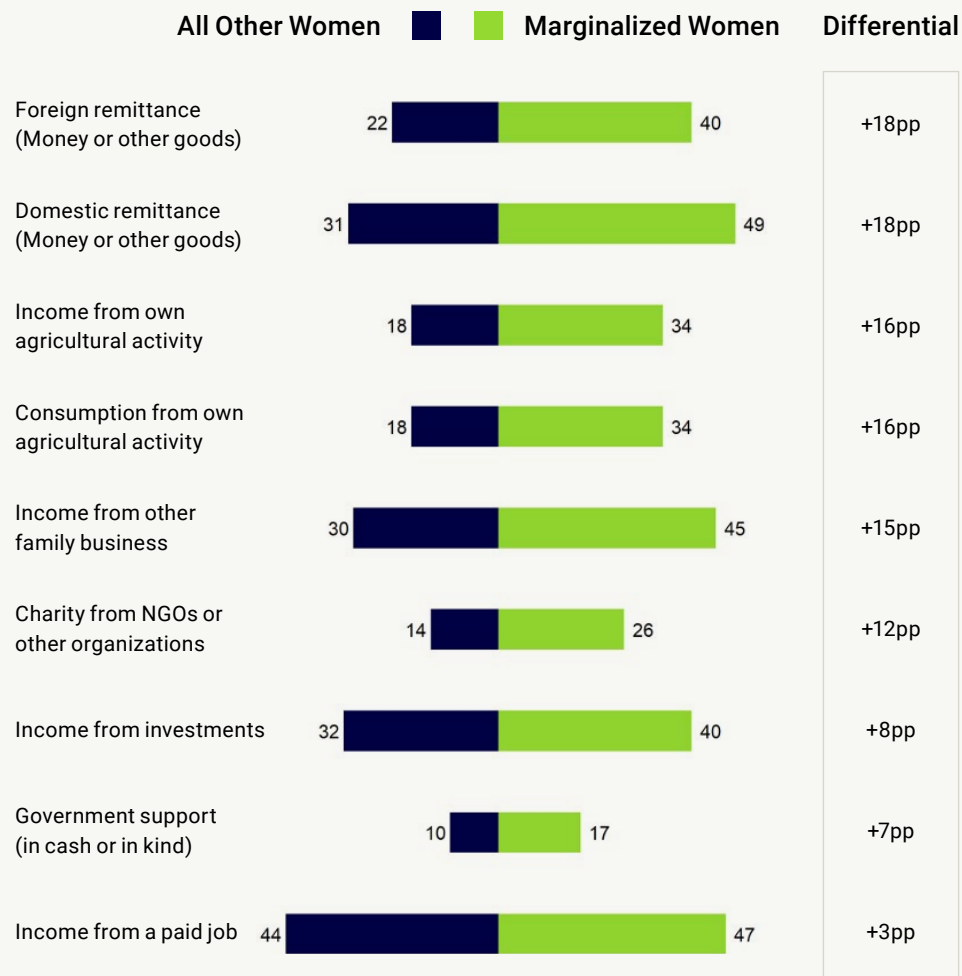* Statistically significant difference

COVID-19 Income Impacts on Marginalized Women

Marginalized South African women report income decreases at a higher rate than all other women. Since most of these women were young, single, and unemployed prior to the pandemic, reduced remittances from family was the hardest hit. **Nearly half of marginalized women reported a decrease in remittance support from family.**

Although around 40 percent of marginalized women reported an increase in government support, 17 percent reported that their government support actually *decreased*. Additionally, nearly one in four marginalized women reported that charity receipts *decreased* during the pandemic.

This suggests that some of the most vulnerable women who rely on government support and charity appear to be slipping through the cracks.

Percent of marginalized women who reported the pandemic DECREASED their household resources, by differential

	All Other Women	Marginalized Women	Differential
Foreign remittance (Money or other goods)	22	40	+18pp
Domestic remittance (Money or other goods)	31	49	+18pp
Income from own agricultural activity	18	34	+16pp
Consumption from own agricultural activity	18	34	+16pp
Income from other family business	30	45	+15pp
Charity from NGOs or other organizations	14	26	+12pp
Income from investments	32	40	+8pp
Government support (in cash or in kind)	10	17	+7pp
Income from a paid job	44	47	+3pp

Note: Respondents could report increased, decreased, or unchanged hours, as well as not a source of income/support.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.
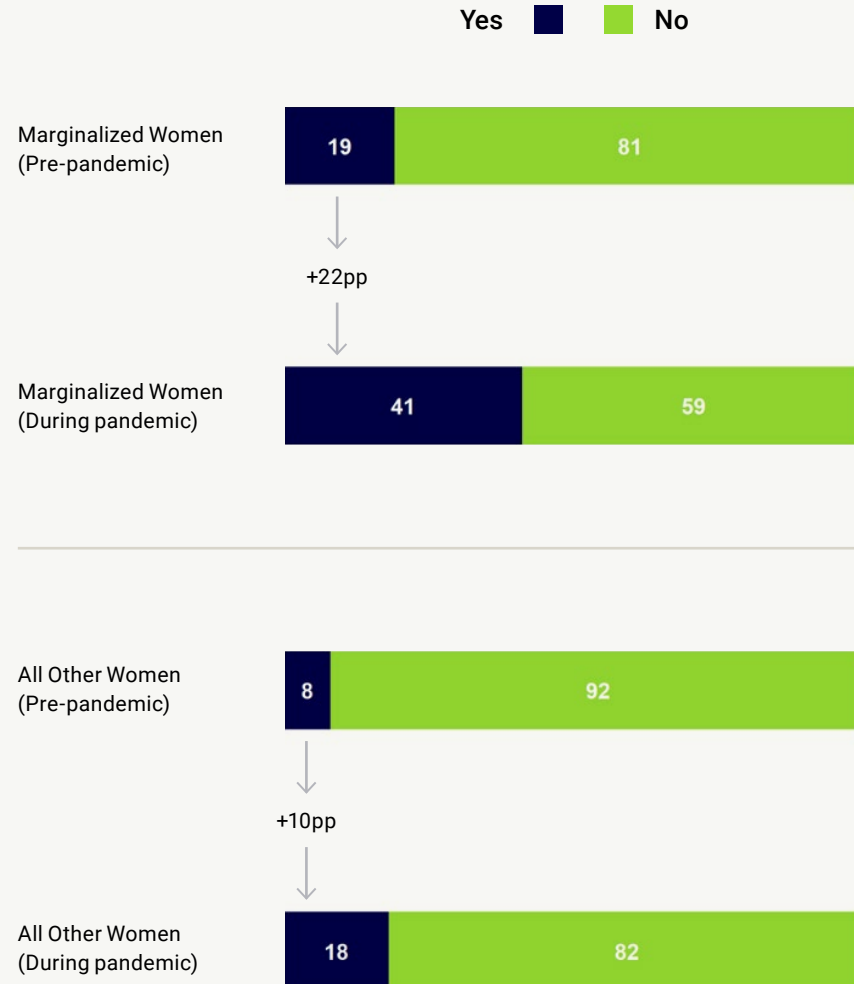
Marginalized Women's Food Insecurity

Households with marginalized women are much more likely to have experienced food insecurity during the pandemic. **Although nearly one out of five marginalized women experienced food insecurity before the pandemic, this proportion doubled during COVID-19.**

During the pandemic, food insecurity for non-marginalized households increased to nearly the same rate as households with a marginalized women *pre-pandemic*.
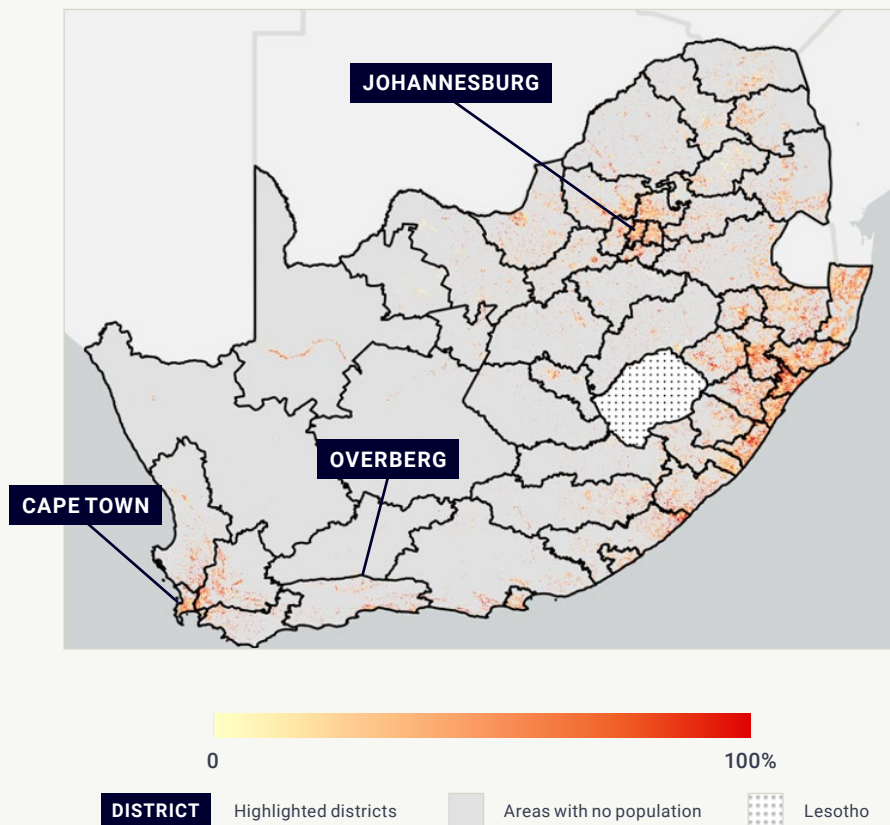
However, the proportion with which marginalized women are experiencing episodes of food insecurity during the pandemic and the rate at which they are losing income likely speaks to the need for more targeted support.

Percent of marginalized women that reported a household member had gone a whole day or night without eating because of lack of food in the past 30 days

Yes ■   No ■

Marginalized Women (Pre-pandemic)
| 19 | 81 |

+22pp

Marginalized Women (During pandemic)
| 41 | 59 |

All Other Women (Pre-pandemic)
| 8 | 92 |

+10pp

All Other Women (During pandemic)
| 18 | 82 |

Localized Food Insecurity for Marginalized Women

Overberg district in Western Cape has the highest proportion of marginalized women who became food insecure due to the COVID-19 pandemic. COVID-19 has increased food insecurity in the Western Cape, one of the wealthiest and most unequal provinces in South Africa that had one of the lowest pre-pandemic food insecurity levels.

JOHANNESBURG

OVERBERG

CAPE TOWN

0   100%

DISTRICT Highlighted districts   Areas with no population   Lesotho

Districts with the _highest_ food insecurity (%) due to COVID-19		Districts with the _lowest_ food insecurity (%) due to COVID-19	
Overberg (Western Cape)	35%	Sekhukhune (Limpopo)	13%
City of Cape Town (Western Cape)	32%	Capricorn (Limpopo)	15%
City of Johannesburg (Gauteng)	31%	John Taolo Gaetsewe (Northern Cape)	16%
Eden (Western Cape)	31%	Pixley ka Seme (Northern Cape)	16%
Cape Winelands (Western Cape)	31%	Xhariep (Free State)	18%
eThekwini (KwaZulu-Natal)	31%	Mopani (Limpopo)	18%
Amathole (Eastern Cape)	29%	Nkangala (Mpumalanga)	18%
Lejweleputswa (Free State)	29%	Joe Gqabi (Eastern Cape)	18%
Zululand (KwaZulu-Natal)	29%	Amajuba (KwaZulu-Natal)	19%
West Coast (Western Cape)	29%	Thabo Mofutsanyane (Free State)	19%

Note 1: A person is considered food insecure because of COVID-19 if they answered "Yes" to the following question: "Did you or your household member go a whole day and night without anything because there was not enough food?" after the COVID-19 pandemic but "No" in February 2020, prior to the pandemic.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.
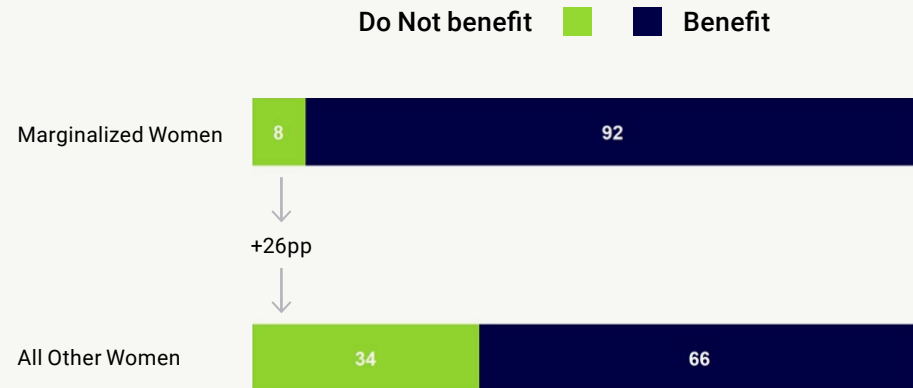
Government Support: Child Support Grant

Although some marginalized women report government and charity support decreasing overall, **over 90 percent of marginalized women report either benefitting, or know someone who benefitted, from the Child Support Grant.** This compares to roughly two-thirds of women who are not in a marginalized group. Since marginalized women are more likely to have children under 5 years old and are low-income, this program appears to be successful at targeting some of the most vulnerable.

Marginalized women also have a higher satisfaction rate from the Child Support Grant. Not only does the program seem to be reaching the right people, but those impacted by the grant are more likely to perceive it favorably.

Percent that benefit, or know someone who benefitted from the Child Support Grant

Do Not benefit ■   Benefit ■

Marginalized Women
| 8 | 92 |

+26pp

All Other Women
| 34 | 66 |

Percent that have a favorable opinion of the Child Support Grant

Unfavorable ■   Favorable ■

Marginalized Women
| 14 | 86 |

+10pp

All Other Women
| 24 | 76 |
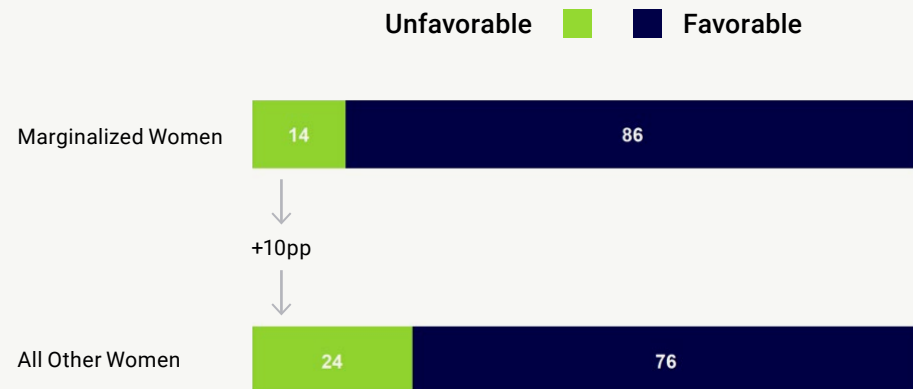
Cape Town Informal Settlement Residents

Cape Town's Informal Settlements

Fraym analyzed how the COVID-19 pandemic affected resident of 400+ informal settlements in the greater Cape Town area. These residents live in tin shacks, slums, or shantytowns. Informal settlements frequently lack access to safe and improved water, improved sanitation, durability of housing, and sufficient living areas.

Khayelitsha—one of the largest slums in the world—is located in Cape Town. Roughly half of the 118,000 households in Khayelitsha live in informal dwellings.

City of Cape Town
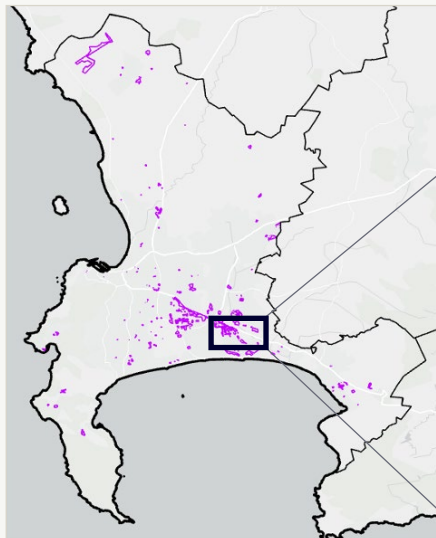
Cape Town Informal Settlements

Khayelitsha Informal Settlements

Overview of Cape Town Informal Settlements

Informal settlements have been in place for decades, mostly on government land and lack proper sanitary infrastructure.

In this study, Fraym examined 400+ such informal settlements in the greater Cape Town area. About 6 in 10 are located on provincial or national land. Around a third of all toilets are permanent infrastructure; the rest are temporary toilets that are provided and cleaned by private companies.

Demographics	Proportion
Age of informal settlement	
0-5 years	3%
5-10 years	14%
10-15 years	17%
15-20 years	42%
>20 years	24%
Type of toilets	
Porta potty	24%
Full flush	31%
Container	17%
Chemical	13%
Other	15%
Informal settlement status	
Some constraints: city land	5%
Some constraints: provincial or national land	58%
Can be upgraded: city land	11%
May need to be relocated	26%

Overview of Cape Town Informal Settlements

Informal settlement residents were also much more likely to believe that restrictions on selling in public spaces would negatively impact women, as informal shops are much more common in slums and shantytowns.

A similar proportion of informal settlement residents became food insecure and had government support decrease during COVID-19 compared to the total population.

Additionally, residents of informal settlements were just as likely to be a beneficiary of the government's Child Support Grant, although their opinions of the program were much less positive.

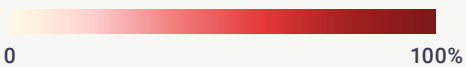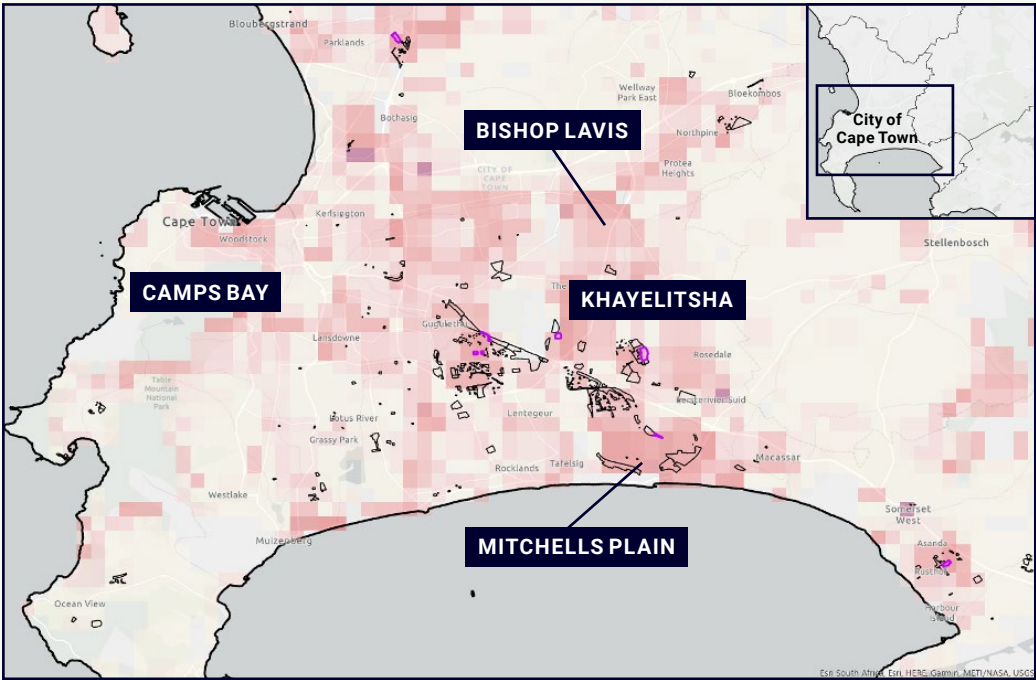| Demographics	Informal Settlements	Total Population[1]
Food Insecurity		
Became food insecure during the pandemic	17%	16%
Government Support		
Government support decreased during COVID-19	51%	20%
Beneficiary of the Child Support Grant program	69%	70%
Positive opinion of the Child Support Grant program	66%	78%
Income		
Income declined due to COVID-19	51%	55%
Believe women will be harmed more by…		
Restrictions on selling in public spaces	32%	24%
Limitations on access to public transportation	5%	8%

Note 1: Total population includes informal settlement population.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.

fraym. Mapping Humanity 27

Loss of Government Support

Fraym used advanced machine learning algorithms to map the effect of the loss of government support due to the COVID-19 pandemic on informal settlements in the greater Cape Town area.

In the Phola Park—Mfuleni and Isabeneni—Mufeleni Informal Settlements, over a third of residents reported a decrease in government support during the COVID-19 pandemic.

Proportion of adults that reported losing government support

BISHOP LAVIS

City of Cape Town

CAMPS BAY

KHAYELITSHA

MITCHELLS PLAIN

Esri South Africa, Esri, HERE, Garmin, METI/NASA, USGS

0   100%

☐ Cape Town informal settlements

☐ Informal settlements with highest loss of government resources

Informal settlements with the _highest_ reported loss of government support due to COVID-19	
Phola Park - Mfuleni	35%
Isibaneni - Mfuleni	35%
Doornbach	34%
Tsunami TRA	34%
Greenfields	30%
Boys Town Extension	30%
Mpetha Square	30%
Lusaka	30%
Mkonto Square	29%
Makhaza Road Reserve	29%

Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.

Loss of Income from Jobs or Businesses

Fraym mapped the effect of the loss of income from a paid job or business due to the COVID-19 pandemic on informal settlements in the greater Cape Town area.

In the Khayelitsha AT Section Settlement, nearly all of residents reported a decrease in income during the COVID-19 pandemic.

Proportion of adults that reported losing income from a paid job or family business during the COVID-19 pandemic
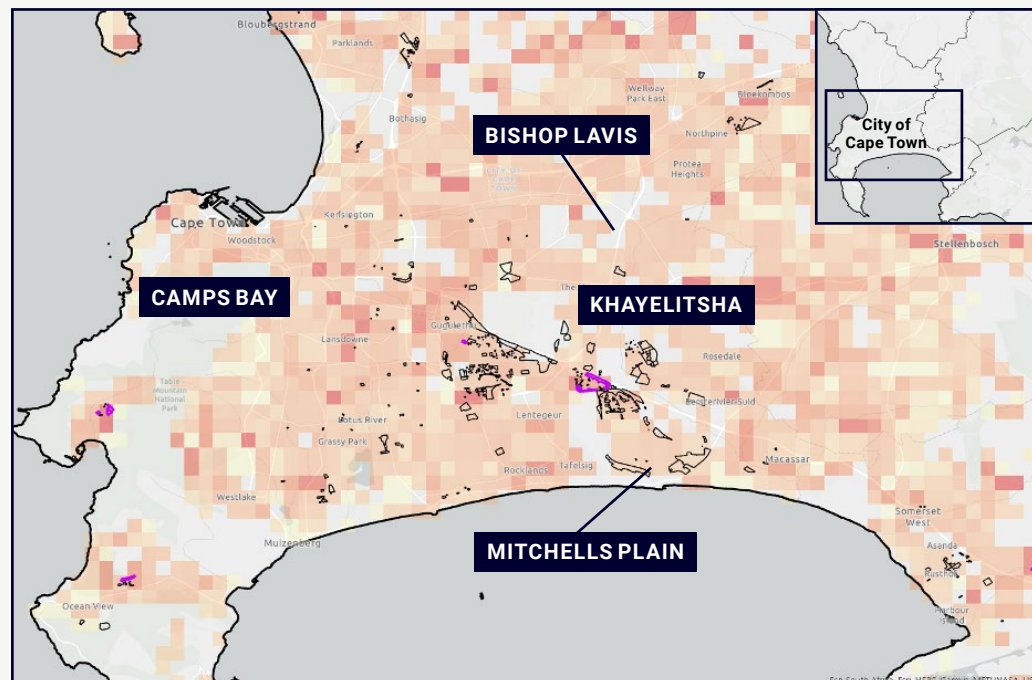
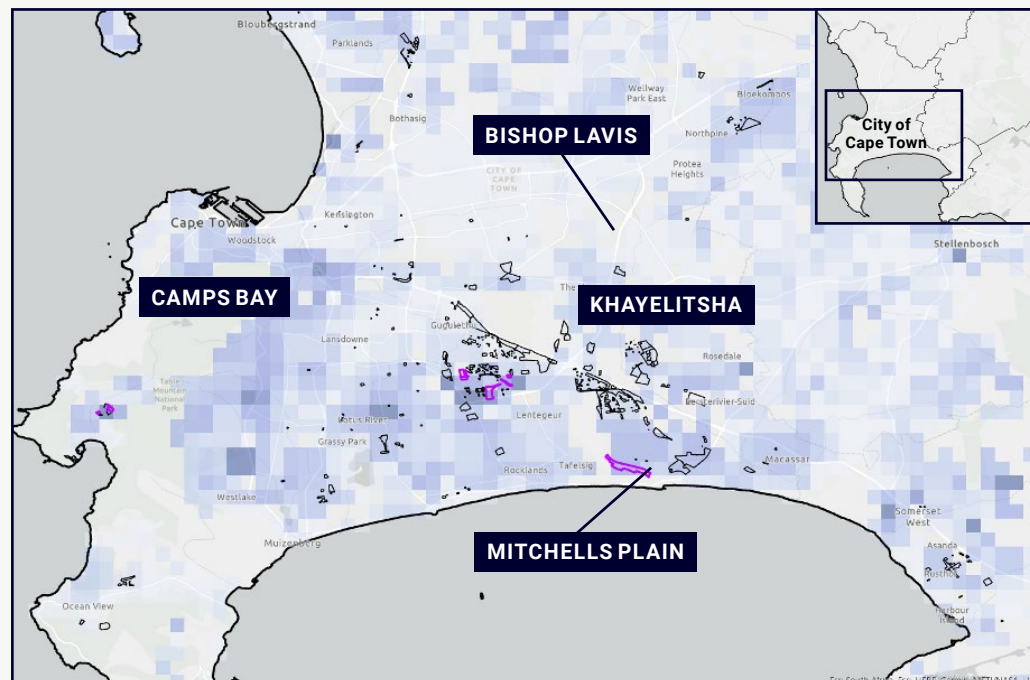| Informal settlements with the *highest* reported income declines due to COVID-19	
Khayelitsha - AT Section	99%
YMCA 1	96%
Imizamo Yethu 1	96%
Savage and Lovemore	91%
Rasta Camp - Sir Lowry Pass	86%
Imizamo Yethu 2	84%
Masiphumelele Wetlands	79%
CT Section	75%
BT Section	74%
Thambo Square	73%

0   100%

☐ Cape Town informal settlements

☐ Informal settlements with highest proportion of income declines

Restrictions on Selling in Public Places

Fraym mapped the perceptions of restrictions on selling in public spaces due to the COVID-19 pandemic on informal settlements in the greater Cape Town area.

In the YMCA 1 and Imazamo Yethu 1 Informal Settlements of Mitchell Plains, 97 percent of residents believe these restrictions will impact women most.

Proportion of adults that reported restrictions on selling in public spaces due to COVID-19 impact women the most

0   100%

☐ Cape Town informal settlements

☐ Informal settlements with highest proportion who think restrictions on selling in public spaces will impact women most

Informal settlements with the _highest_ proportion of people who think restrictions on selling in public spaces due to COVID-19 would impact women most

YMCA 1	97%
Imizamo Yethu 1	97%
Imizamo Yethu 2	75%
Kosovo	56%
Marcus Garvey	51%
Area K	50%
Monwood	45%
Monwood Council	45%
Monwood South	45%
Monwabisi Park	44%

Unpaid Family Workers

Overview of Unpaid Family Workers

Unpaid family workers are defined as those working in their own household and not receiving pay for taking care of children or elderly, performing agricultural work, or helping in any other type of family business.

These women are more likely than the general population to be under 35 and to live with a young child.

| Demographics	Female Unpaid Caregivers	Total Population[2]
Age[1]		
18-34	55%*	46%
35+	45%*	54%
Race		
18-24	60%	58%
25-34	26%	28%
	9%	9%
35-44	5%	5%
Marital Status[1]		
One or more children aged 5 years or younger	47%	46%
One or more elderly adult (65+)	32%	33%
Live with the following		
Scheduled Caste	39%*	29%
None of them	21%	18%

* Statistically significant difference

Note 1: Categories do not sum to 100 percent due to response options that are not shown.
Note 2: Total population includes unemployed women.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.

Localized Increases in Unpaid Working Hours

More than two thirds of unpaid family workers in Nelson Mandela Bay, Sedibeng, and the City of Cape Town districts reported an increase in working hours during the COVID-19 pandemic. Overall, there are 33 districts where at least half of unpaid family workers reported an increase in their working hours.

SEDIBENG

CAPE TOWN

NELSON MANDELA BAY

0   100%

DISTRICT   Highlighted districts   Areas with no population   Lesotho
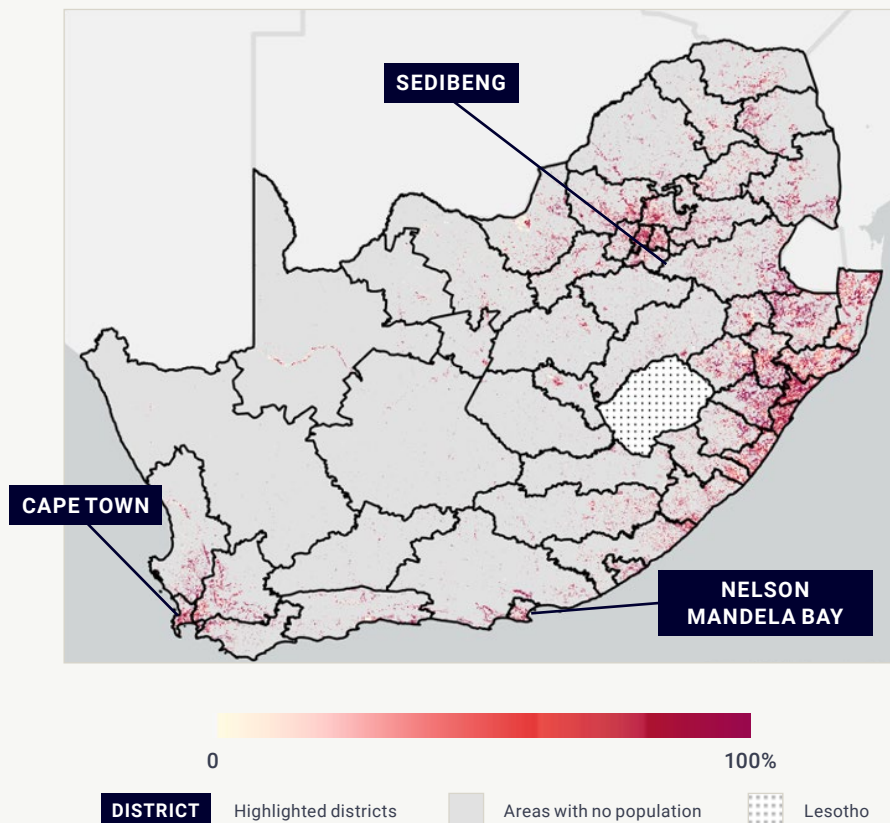
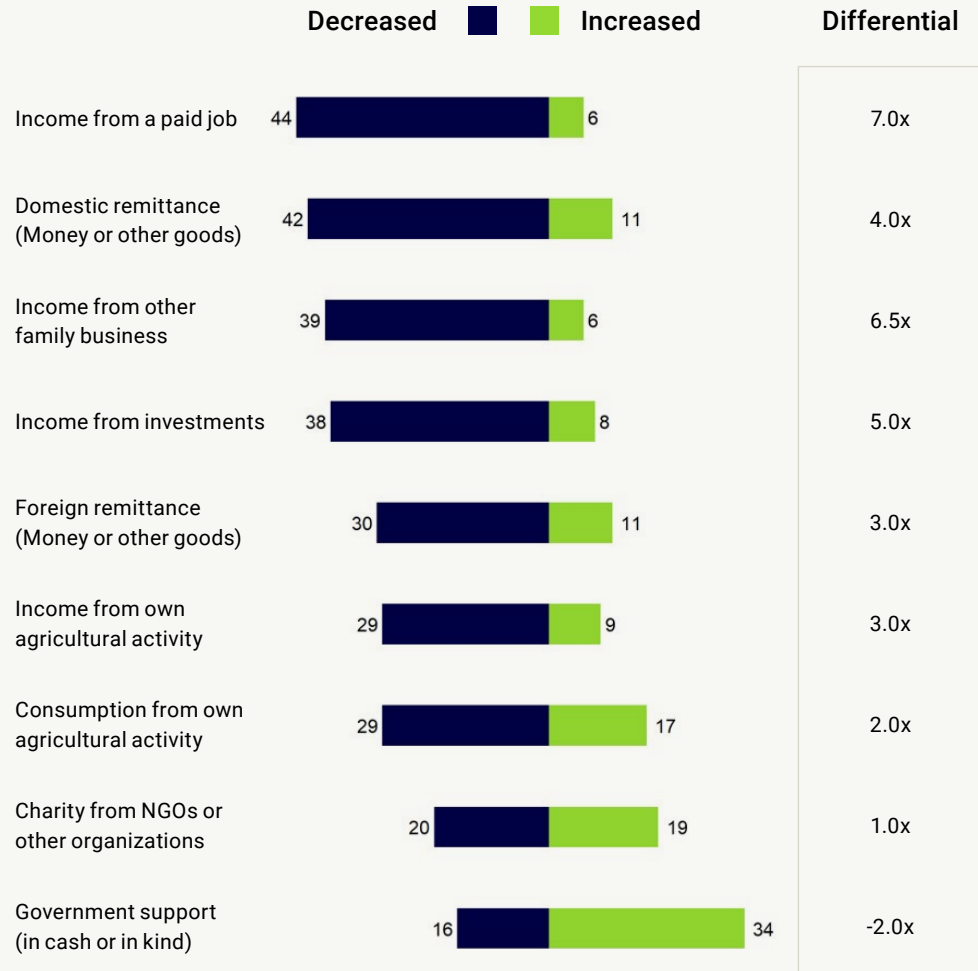| Districts with the *highest* increase in unpaid household work (%) due to COVID-19		Districts with the *lowest* increase in unpaid household work (%) due to COVID-19	
Nelson Mandela Bay (Eastern Cape)	67%	Sisonke (KwaZulu-Natal)	40%
Sedibeng *(Gauteng)*	66%	Alfred Nzo *(Eastern Cape)*	41%
City of Cape Town *(Western Cape)*	66%	Namakwa *(Northern Cape)*	41%
City of Johannesburg *(Gauteng)*	64%	Umzinyathi *(KwaZulu-Natal)*	43%
West Rand *(Gauteng)*	64%	Umkhanyakude *(KwaZulu-Natal)*	43%
Lejweleputswa *(Free State)*	63%	John Taolo Gaetsewe *(Northern Cape)*	43%
Thabo Mofutsanyane *(Free State)*	63%	Ugu *(KwaZulu-Natal)*	44%
Buffalo City *(Eastern Cape)*	62%	Chris Hani *(Eastern Cape)*	45%
Xhariep *(Free State)*	62%	Amathole *(Eastern Cape)*	45%
City of Tshwane *(Gauteng)*	61%	Uthungulu *(KwaZulu-Natal)*	45%

Unpaid Family Workers and Economic Shocks

Unpaid family workers **have been hit especially hard by shocks to household paid income, money from family, and income from family businesses.** Since these women are not paid for their work, these household income shocks may affect them more severely than multi-income households.

Although government support was more likely to increase for these households, that income appears unlikely to cover the full household income loss.

Percent of unpaid family workers who reported the pandemic INCREASED / DECREASED their household resources, by source

Decreased ■ ■ Increased   Differential

Source	Decreased	Increased	Differential
Income from a paid job	44	6	7.0x
Domestic remittance (Money or other goods)	42	11	4.0x
Income from other family business	39	6	6.5x
Income from investments	38	8	5.0x
Foreign remittance (Money or other goods)	30	11	3.0x
Income from own agricultural activity	29	9	3.0x
Consumption from own agricultural activity	29	17	2.0x
Charity from NGOs or other organizations	20	19	1.0x
Government support (in cash or in kind)	16	34	-2.0x

Note: Respondents could report increased, decreased, or unchanged hours, as well as not a source of income/support.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.
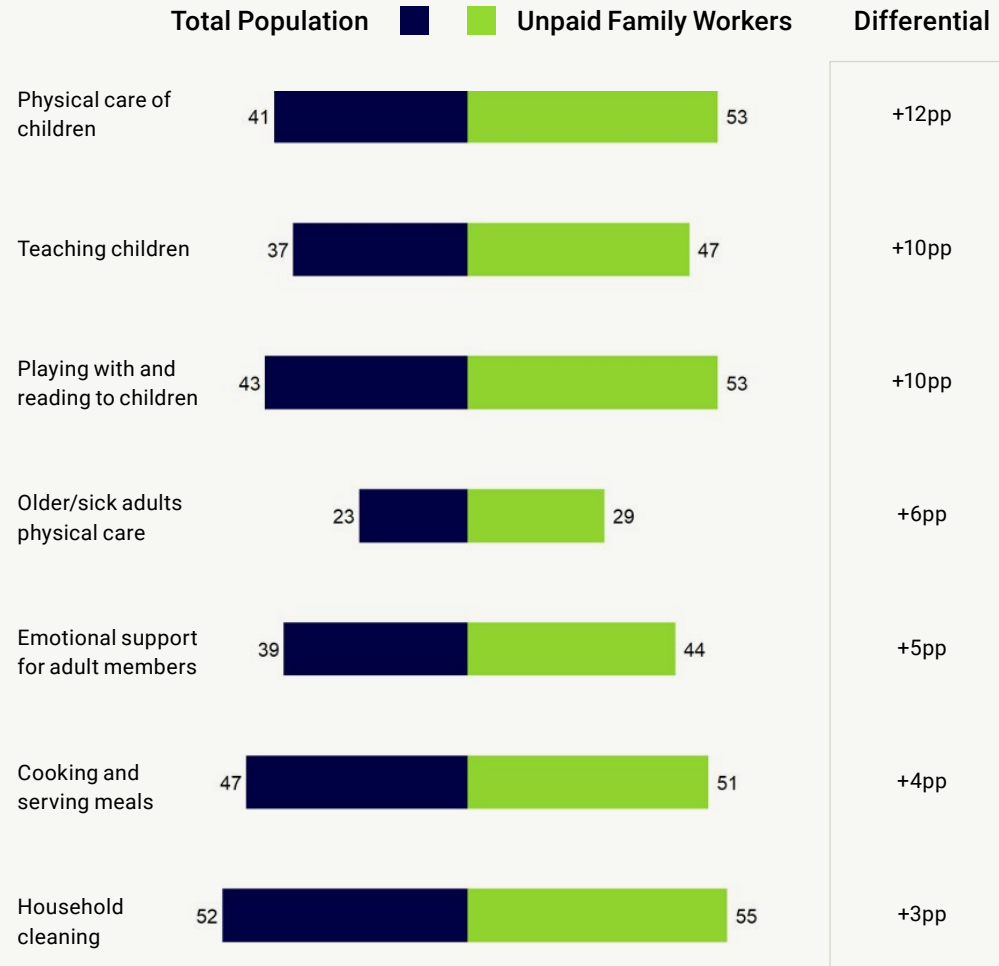
Household Tasks and Responsibilities

Compared to the general population, unpaid family workers spent more time caring for the children and adults in their families due to the COVID-19 pandemic. **Over half of unpaid family workers said that their hours devoted to caring for, teaching, and playing with children increased as a result of the COVID-19 pandemic.**

These women were also more likely to increase their time spent providing care and emotional support to adults.

Percent of unpaid family workers that reported the COVID-19 pandemic INCREASED the hours they devote to household activities, by differential

	Total Population	Unpaid Family Workers	Differential
Physical care of children	41	53	+12pp
Teaching children	37	47	+10pp
Playing with and reading to children	43	53	+10pp
Older/sick adults physical care	23	29	+6pp
Emotional support for adult members	39	44	+5pp
Cooking and serving meals	47	51	+4pp
Household cleaning	52	55	+3pp

Note: Respondents could report increased, decreased, or unchanged hours, as well as not normally doing that activity in their household.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.

Caregiving and Impacts of School Closures

Female unpaid family workers are As a group, unpaid family workers are more likely than the general population to believe that they bear the brunt of the work in caring for all aspects of child development due to school closures.

The general population likely **underestimates the impacts of school closures on women**, even as their labor is critical during school closures and stay-at-home orders.

Percent of unpaid family workers that reported school closure experiences affected WOMEN MORE, by differential
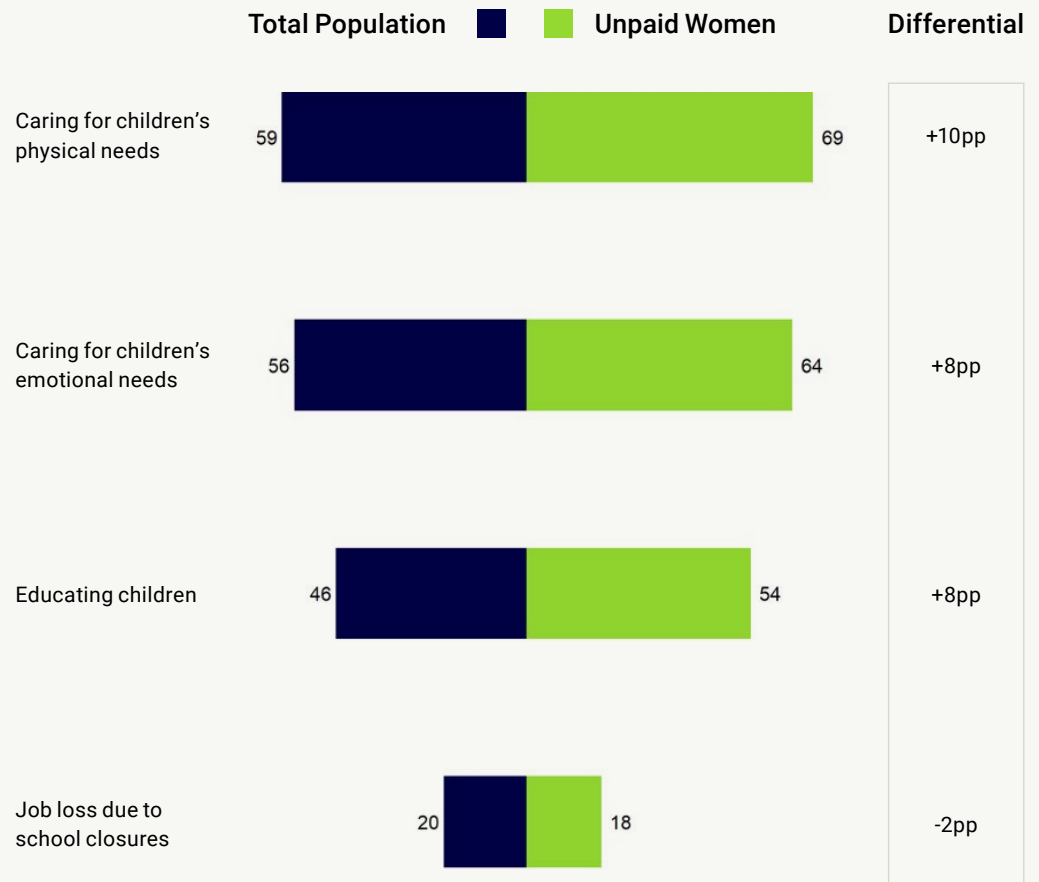
Total Population ■   ■ **Unpaid Women**   **Differential**

Category		Differential
Caring for children's physical needs	59 — 69	+10pp
Caring for children's emotional needs	56 — 64	+8pp
Educating children	46 — 54	+8pp
Job loss due to school closures	20 — 18	-2pp

Note: Respondents could select women more, men more, about the same, or not an impact.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.

Impacts of Stay-at-Home Orders

Seven in ten unpaid family workers believe women were more likely to have an increased household chore workload compared to around 57 percent of the general South African population.

They were also more likely to understand their increased vulnerability to domestic violence. With more time spent in the house, unpaid family workers believe they are at much higher risk for increased violence.

Most South Africans believed that more economic consequences, including job losses and income declines, would affect both men and women equally.

Percent of unpaid family workers that reported the stay-at-home orders affected WOMEN MORE, by differential
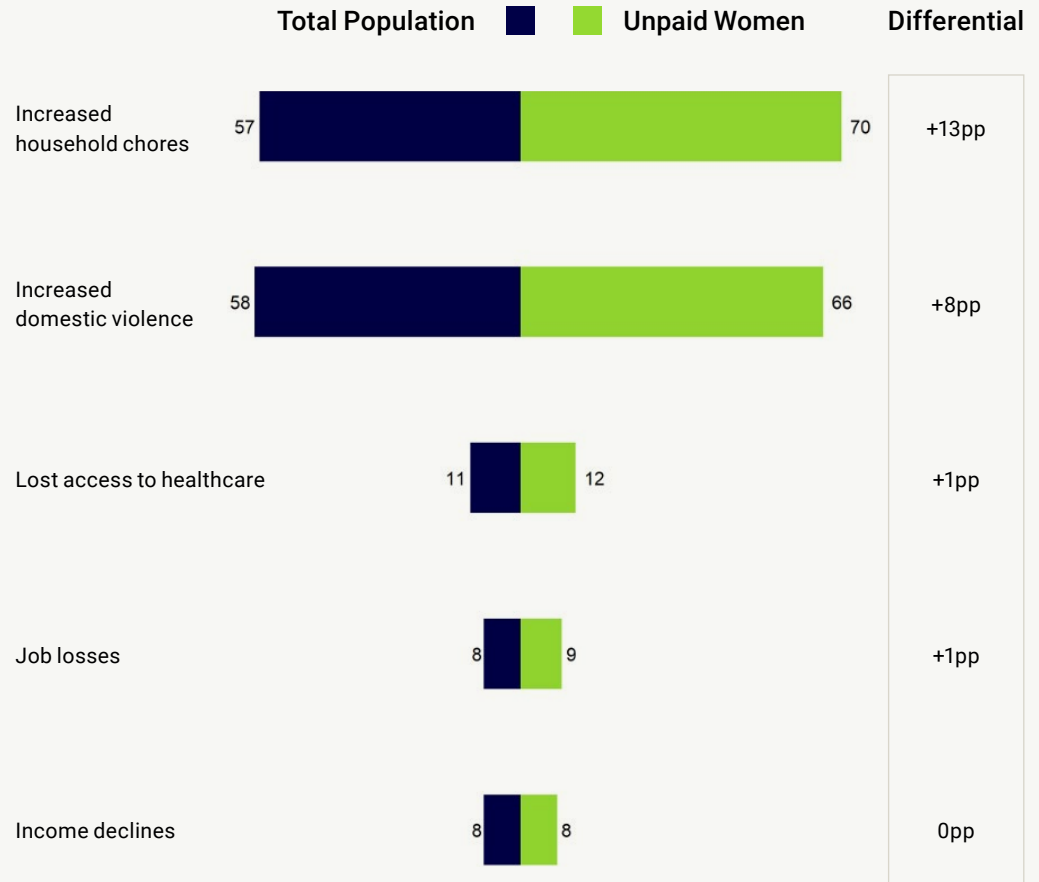
Total Population ■ ■ Unpaid Women   Differential

	Total Population	Unpaid Women	Differential
Increased household chores	57	70	+13pp
Increased domestic violence	58	66	+8pp
Lost access to healthcare	11	12	+1pp
Job losses	8	9	+1pp
Income declines	8	8	0pp

Note: Respondents could select women more, men more, about the same, or not an impact.
Source: Fraym nationally representative survey of 8,028 South African adults conducted April 9-23, 2021.

Conclusion

The Economic Effects of COVID-19

Through this report, Fraym expands its recent gender-transformative recovery work by conducting deep-dive analyses on the gendered economic effects of the COVID-19 pandemic in South Africa. More specifically, Fraym explored whether specific groups may have been disproportionately impacted by the pandemic and analyzed the varying impacts and perceptions of the economic consequences of COVID-19.

This analysis provides an important opportunity to highlight specific challenges and other dynamics that may affect labor force participation and productive opportunities for specific types of women and marginalized groups.

1 Loss of paid work and working hours:

Approximately half of female entrepreneurs reported income losses from a paid job, while two in five unemployed women reported decreases in household income from remittances, family businesses, and paid jobs.

2 Rise in food insecurity:

Roughly three in ten marginalized women reported food insecurity due to the COVID-19 pandemic. Eight in ten unemployed women suffered from food insecurity during COVID-19.

3 Caregiving and household tasks:

Over half of unpaid family workers and female entrepreneurs said that their hours devoted to caring for, teaching, and playing with children increased as a result of the COVID-19 pandemic.

4 Government resources:

All subgroups reported more gains than losses from government support during the pandemic. Nearly 40% of unemployed and marginalized women, and 25% of female entrepreneurs report this increase. About half of residents in Cape Town informal settlements also report an increase in government support during the pandemic.

Appendix

About Fraym

Fraym has built machine learning (ML) software that weaves together geo-tagged household survey data with satellite imagery to create localized population information (1 km^2).

1 The primary ML model input is data from high-quality, geo-tagged household surveys. Key indications of a high-quality household survey include implementing organization(s), sample design, sample size, and response rates. After data collection, *post-hoc* sampling weights are created to account for any oversampling and ensure representativeness.

2 The second major data input is satellite imagery and related derived data products, including earth observation (EO) data, gridded population information (e.g., human settlement mapping, etc.), proximity to physical locations (e.g., health clinics, ports, roads, etc.) and biophysical surfaces like soil characteristics. As with the survey data, Fraym data scientists ensure that the software only uses high-quality imagery and derivative inputs.

3 To create spatial layers from household survey data, Fraym leverages machine learning to predict an indicator of interest at a 1 square kilometer resolution. This methodology builds upon existing, tested methodologies for interpolation of spatial data. The resulting model is used to predict the survey data for all non-enumerated areas. A similar approach was originally developed by academic researchers focused on health outcomes, which were expanded upon by USAID's Demographic and Health Surveys program since then by Fraym and others.[1]

ACQUIRE DATA	HARMONIZE DATA	MACHINE LEARNING	GEOSPATIAL INSIGHT
Geo-tagged household surveys	Validate	Proprietary algorithms	Predictive modeling
Satellite imagery	Clean	Human-centric QA/QC	API enabled
Partner datasets	Geospatially enable	Automation	Analytic services
Mobility data from network operators			Front-end tools

Study Methodology

Fraym conducted a survey of 8,024 South African respondents via a demographically and geographically-targeted online survey. Data was collected between April 9 to 23, 2021.

The respondents identified the following gender identities: 4,578 females (57%), 3,457 males (43%), and 43 (0.5%) respondents who identified as transgender female, transgender male, other/non-binary, or preferred not to answer. South Africa's nine provinces were represented as follows: Eastern Cape, 716 (9%), Free State, 377 (5%), Gauteng, 2,548 (32%), KwaZulu-Natal, 1,537 (19%), Limpopo, 668 (8%), Mpumalanga, 537 (7%), North West, 361 (4%), Northern Cape, 119 (1%), and Western Cape, 1,215 (15%).

The average survey completion time was 21 minutes for respondents. The survey consisted of about 50 questions. Topics included demographics, impacts of the COVID-19 pandemic, perceptions of the gender burden of these impacts as well as attitudes toward support from international, national, and local actors.

The survey vendor used for the sample adheres to industry best-practices. These include: (i) regularly testing/validating on a rolling basis to ensure participants and their responses are real/accurate; (ii) comparing answers from respondents to pre-collected information on the same respondents for consistency, such as same age, gender, socio-economic status, and geography; (iii) using automated natural language processing (NLP) on open-ended responses to detect non-sensical language etc.; (iv) check for straight lining (e.g. answering "C" for all questions); and (v) checking speed of completion rates, (e.g. flagging anyone who spends 1/3 or less of the median time to complete the questionnaire). Responses that fail any one of these tests were automatically removed from the data and possibly lead to the removal from the vendor's sample pool as well.

The data was designed to be nationally representative. Modest divergence was found between sample characteristics and the population parameters according to available Statistics South Africa data. Post-hoc weights were created to correct for these differences. An iterative proportional fitting process was used to simultaneously balance the distributions of the following parameters: gender, age, urban status, and the population in each of South Africa's nine provinces.

The localized maps seen in this report were produced using the proprietary software FUSE*fraym*™. This software uses artificial intelligence and machine learning (AI/ML) to weave together survey data with satellite imagery and geostatistical datasets. These include earth observation (EO) data, gridded population information (e.g., human settlement mapping), and biophysical surfaces like soil characteristics. Fraym data scientists ensure that the software only uses high-quality imagery inputs. Derived products are carefully assessed for model metrics, contextual checking, and pedigree within the geospatial data science community. Remotely sensed data, such as satellite imagery, are downloaded from long running and frequently quality-checked satellites and sensors. Data is provided by respected organizations including the National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA), European Space Agency (ESA), the Socioeconomic and Applications Center (SEDAC), and the Center for International Earth Science Information Network (CIESEN).
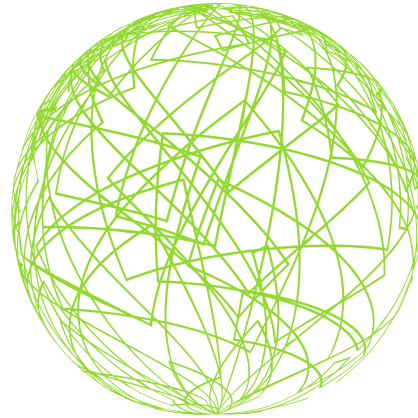
Have questions about how Fraym data can help your organization?

info@fraym.io