Persistent yet Ameliorable COVID-19 Impacts on Female Entrepreneurship: Experimental Evidence from Kenya

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Abstract

While female entrepreneurs face additional hurdles, it is unclear whether this gap increases during crises: women may be more impacted due to those same hurdles, but they may also be more resilient due to their sectors of operations. In a large sample of partnered male and female Kenyan youth microentrepreneurs, this paper documents more severe consequences of COVID-19 for women across a variety of outcomes: business ownership; sales and profits; adaptability; leisure; and intra-household decision-making. However, the impact of randomized grants greatly offsets these declines, and generally does so as strongly for women as for men.

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1. Introduction

A growing literature in development economics shows that exposure to economic shocks, such as the one triggered by COVID-19, disrupts labor markets and small businesses in low- and middle-income countries (Loayza et al 2007; Miguel and Mobarak, 2022). This labor market volatility exacerbates the increasing employment challenge facing working-age youth, especially in sub-Saharan Africa (Brooks et al. 2014, Fox et al. 2016). The productivity of these young workers is often constrained by a lack of both physical and human capital (Bruhn, Karlan, and Schoar 2010; Blattman, Fiala, and Martinez 2014).

These constraints tend to be more relevant for women who are further held back by social norms regarding their employment and family responsibilities (Buvinic et al. 2016; Hardy and Kagy 2018; Jayachandran 2021). As family care needs increased, the COVID-19 crisis aggravated many pre-existing challenges for young workers (Domenella et al 2021; Egger et al. 2021), affecting women disproportionately in many settings (Kugler et al. 2021; Acevedo et al. 2022; Alon et al. 2022; Alfonsi, Namubiru, and Spaziani 2022; Hardy et al. 2023). Evidence suggests that women were disproportionately responsible for the increase in domestic burdens, limiting their labor supply and income-generating capacity (Andrew et al. 2020; Del Boca et al. 2020; Farre et al. 2020; Biscaye et al. 2022). Additionally, they already owned less profitable businesses, limiting that channel's resiliency to shocks (Torres et al. 2023).

On the other hand, in places where women-owned businesses were less dependent on the overall economy and more concentrated on basic needs industries and home-based activities, the pandemic may have been less harmful to female entrepreneurs (Afridi, Dhillon, and Sanchari, 2023). This trade-off may be particularly salient for married individuals or households with multiple incomes (Bernhardt et al. 2019; Delecourt et al. 2022).

In this paper, we study the gender differential impacts of the COVID-19 pandemic on Kenyan youth and evaluate the effects of a youth entrepreneurship program implemented at large scale by the Government of Kenya that provided business grants and training during the crisis. We study the impacts on business, economic, time use, intra-household, and well-being outcomes over the course of approximately two years from the inception of the pandemic. We draw on a timely data collection just before the pandemic outbreak, plus two follow-up surveys conducted in the falls of 2020 and 2021.

We focus this paper's analysis on youth living with a domestic partner (from now on referred as "married youth"), where the main gender differential impacts question is most applicable. We first show that the COVID-19 pandemic impacted married women's businesses ownership more negatively than men's. Once controlling for pre-Covid business sector, women are about five percentage points less likely than men to still own a business in both

the 2020 and 2021 follow-up surveys, as compared to January and February 2020. In addition, among pre-pandemic business owners, the gender gap in monthly sales and profits increased by about 80% relative to pre-pandemic gaps. Among new entrepreneurs, women also opened businesses with significantly lower sales and profits than men during the period, with wider gender gaps than pre-existing business in early 2020.

Women entrepreneurs in Kenya also fared worse in adapting their business to the challenges imposed by the pandemic: female entrepreneurs were less likely than men to start online sales or remote work arrangements, less likely to have received national or local government support, and less likely to have taken a loan to sustain business operations. We find that the increased gender gap in business ownership is not present among those that received any national or local government support in response to the crisis, which is particularly relevant in a context where, despite their availability, the majority of Kenyan microentrepreneurs were unaware of the existence of business assistance programs (World Bank, 2020).

Beyond entrepreneurship outcomes, the pandemic affected the earnings gap: the gender gap for earnings from the primary income-earning activity increased by Ksh. 6,600. These results, along with supporting evidence from respondents' own estimates of their spouses' income, suggest that the pandemic impacted women more severely relative to their spouses.

Furthermore, the pandemic increased the gender gap in the number of hours dedicated to childcare by 30%.[1] The increased childcare gap comes at the expense of women reducing their working hours relative to men. We also find suggestive evidence that the greater gaps in childcare mediate the increased gender gaps in business ownership.

A natural question is whether these widening entrepreneurship, earnings, and time-use gaps, have resulted in changes in intra-household bargaining power. Using vignettes, we show that married women are more likely than men to identify with situations where their intra-household position has deteriorated since the COVID-19 outbreak, even almost two years after the pandemic started. This in turn bolsters findings in other settings documenting the pandemic's effect on women's decision-making inside the household and their risk of intimate partner violence (Leslie and Wilson 2020; Aguero 2021; Mahmud and Riley 2021).

Having found such economically significant gender differences in business and household outcomes, we assess in the second part of the paper whether US$ 360 business grants and training programs helped protect women's businesses differentially during the COVID-19 pandemic. The Government of Kenya, with support from the World Bank, implemented the Kenya Youth Employment and Opportunities Project (KYEOP hereafter) in parallel with the pandemic to support employment outcomes among youth, aged 18-29, with no more than secondary education, who were unemployed or working in vulnerable jobs. The KYEOP was implemented between 2017 and 2023, with calls for applicants for the main project's interventions every 6 months. In the 4th intake cycle, which started shortly before the onset of the pandemic, given oversubscription to the project's interventions, participants

[1] This is consistent with evidence from other regions (Andrew et al. 2020; Del Boca et al. 2020; Farre et al. 2020; Alfonsi et al. 2022; Biscaye et al. 2022).

were randomly assigned to either business grants (Grants Only), business development services (BDS only), which included classroom business training and visits to the business by a counselor, or the combination of both (Grants and BDS), in addition to a control group. The interventions were rolled out between February 2020 and July 2021.

The grants had a positive and significant treatment effect on business ownership, increasing the probability of owning a business by about 20 percentage points at the end of 2021. The grants were also impactful in boosting business performance, with effects relative to the control group between 25% and 40% for men and women. Our findings on main business outcomes are in line with Domenella et al. (2021), who examined the impact of grants and BDS among another KYEOP sub-sample in 2020.

Furthermore, women benefitted from the interventions as much as men. Considering that various programs have found impacts for male-owned businesses but not for female-owned (e.g. Fafchamps et al. 2014), notably when associated with allocation of resources among married couples with businesses (Bernhardt et al. 2019), it is encouraging to see similar impacts for both men and women in the context of the pandemic, including among women whose spouses were also entrepreneurs.

Beyond business outcomes, the grants had significant impacts on other aspects of women's economic behavior and well-being. The grants had a large effect on the likelihood that women have any source of income, as well as on the amount they earn from their primary income-generating activity.

Examining possible channels of impact from grants to business outcomes, we observe that the grants, particularly in combination with BDS, were effective at increasing women's working hours in a typical day, at the expense of domestic work, leisure time, and childcare activities. In contrast, the grants had no significant impacts on men's time allocations. If anything, the point estimates suggest the opposite pattern: grants reduce the time men spend working and increase their time spent on leisure and domestic work activities. We also find that the grants had strong positive impacts on survey-based subjective well-being outcomes, although less so for women than for men.

Our results contribute to several strands of the literature. First, we contribute to the understanding of the impacts of the pandemic on youth entrepreneurship. We are able to assess the impacts of COVID-19 among youth entrepreneurs working across different types of industries and locations, as opposed to focusing on one particular context.[2] We also contribute to the mixed (so far) evidence regarding the pandemic's impact on gender gaps in the Global South. We find, contrary to Alon et al. (2022) and Contreras-Gonzalez et al. (2022) persistent gender gaps' effects even two years after the pandemic, more in line with findings from Alfonsi, Namubiru, and Spaziani (2022).

[2] Brooks et al. (2022) study COVID-19 impacts in an informal setting in Nairobi; Hardy et al. (2022) study it in the garment industry in a Ghanian city.

Second, we contribute to the literature on the role of grant interventions in mitigating crises, in limiting the widening of income and employment gender gaps, and in buffering negative shocks to married women's intra-household positions.[3] In this regard, the two most related papers are Brooks et al. (2022) and Domenella et al. (2021). The former evaluates the impact of delivering a one-time unconditional cash transfer in May 2020 to a randomly selected group of female microenterprise owners in an informal setting in Nairobi County, with endline data collected in August 2020. Their study only focuses on female entrepreneurs, while we collect data from men too, allowing us to examine gender gaps. Our sample also covers 15 different counties in the country. Additionally, we evaluate the medium/long-run effects two years after the pandemic onset, as opposed to a short-run stabilization policy. Compared to Domenella et al. (2021), this paper differs in focusing on gender gaps, in its longer-run evaluation (two years as opposed to several months), and on a considerably wider set of individual and intra-household outcomes. In particular, the data on time-use and the vignettes allow us to directly analyze various potential mechanisms and pathways.

Finally, we also contribute to the broader growing literature on entrepreneurship in Africa, which has the highest rate of self-employment and employers in the world (World Bank 2019). Specifically, we contribute to the literature on performance gaps between male and female businesses (Nix, Gamberoni, and Heath 2016; Jayachandran 2021), notably regarding self-control issues (Fafchamps et al. 2014), expropriation issues (Fiala 2017; Riley 2022), and response to shocks and differential adaptation from mitigating circumstances.

The next section describes the background of the paper. Section 3 details the data. Section 4 outlines the empirical strategy and the effects of COVID-19. In section 5, we present the evidence on the impacts of the interventions on youth outcomes, and section 6 presents a discussion of the results and concludes.

2. Background and Context

2.1. Business Interventions

In recent years, policy makers have aimed to reduce African youth unemployment and underemployment by supporting ambitious training and employment programs (Mckenzie and Woodruff 2014; Bardasi et al. 2021; McIntosh and Zeitlin 2022).

The KYEOP is a large youth employment project implemented by the Government of Kenya, with funding from the World Bank. The project's objectives are to increase employment and earning opportunities among vulnerable youth by providing skills training, entrepreneurship support, and access to relevant job market information. One of the key interventions is a support program for self-employment targeting youth aged 18-29 years with no more than secondary education and who are unemployed or working in vulnerable

[3] Bottan et al. 2021; Gulesci, Puente-Beccar, and Ubfal 2021; Decker et al. 2022; Alfonsi, Namubiru, and Spaziani 2022; Londoño-Vélez and Querubin 2022.

jobs. This paper focuses on the self-employment component that provides selected youth with the following forms of support to help them start or grow their business: (a) business grants of Ksh. 40,000 (equivalent to about US$ 360); (b) business development services (BDS) in the form of formal classroom group training and 7 one-on-one counseling visits; or (c) grants and BDS. The call for youth to apply to the fourth round of the KYEOP and their enrollment were organized in June-August 2019. Youth applicants, totaling 9,380 individuals stratified by gender across 15 counties, were randomly allocated into the three treatment groups, in addition to a control group, in February 2020, immediately after completion of an in-person baseline survey, and incidentally just before the COVID-19 pandemic.

The business grants of Ksh. 40,000 are quite substantial for the local context, equivalent to approximately seven times the monthly average income earned from primary activity at baseline for women in our sample, and four times for men.[4] The grant is equivalent to approximately two months of baseline average sales, and six and eight months of average profits for male and female entrepreneurs, respectively. The grants were distributed as a digital payment through bank accounts in two tranches. To receive the grant, participants had to attend a brief orientation session where they were given details about the program's objectives and requirements. Given the COVID-19 restrictions, monitoring was mainly conducted via telephone.

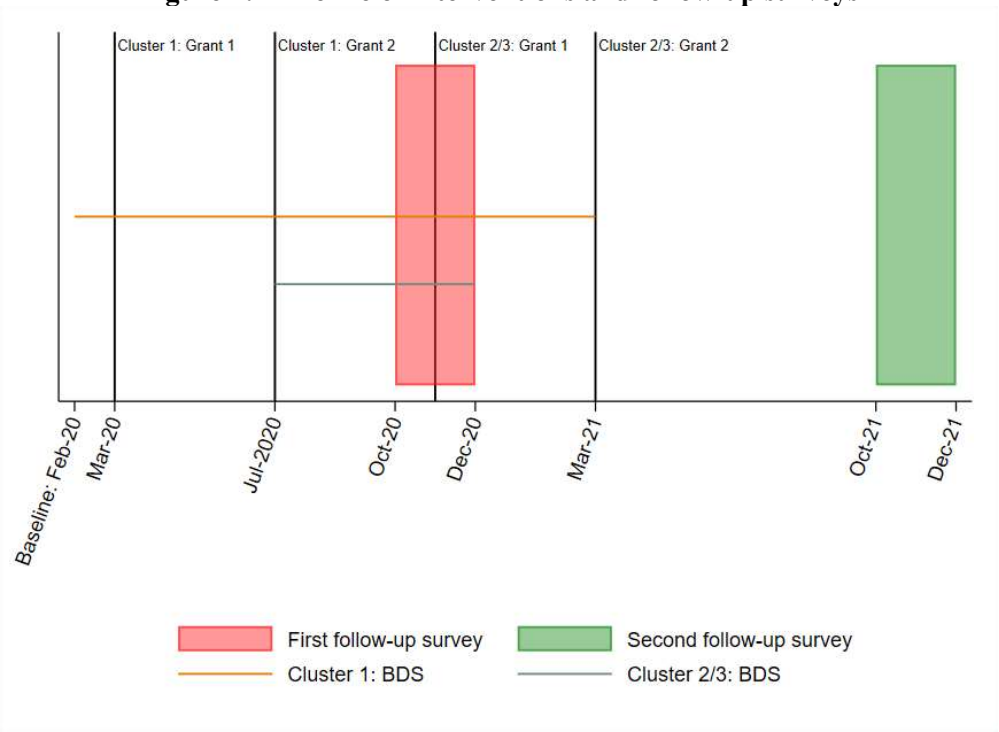
The BDS program takes a comprehensive approach to equipping young entrepreneurs with managerial abilities. It consists of a four-day classroom training, four months of access to a digital BDS repository, and seven personalized sessions with a trained financial counselor. The curriculum covers a range of topics, including business idea formation, business models, funding sources, legal registration, marketing, pricing, and record-keeping.

The intervention rollout was organized into three clusters, each consisting of five counties. The three clusters received the interventions at different times (see details in Tables A1 and A2). In Figure 1, we plot the timing of the interventions in relation to the timing of the two follow-up surveys. At the time of the first follow-up survey, only the first cluster had received the entirety of the grant, and BDS interventions were ongoing. At the time of the second follow-up survey, both grant and BDS interventions had been fully implemented with high take-up rates of 89% for grants and 82% for BDS.[5] Besides the baseline data from January and February 2020, we conducted two follow-up phone surveys in the falls of 2020 and 2021 constituting the analytical sample of this paper. Further detail is provided in section 3.

[4] A possible concern is that sizeable grants like these could cause negative externalities for competitors, especially during a crisis. Although we are not able to directly test this, McKenzie and Puerto (2021) find minimal spillovers of an impactful training program in a very similar sample in Kenya. In addition, the grants are implemented throughout the country with targeting not particularly concentrated on a specific county, and therefore with limited risks of spillovers.

[5] For grants, disbursement of the first tranche was conditional to attending the one-day grant orientation session. For BDS, take-up is calculated here as the percentage, among those assigned to BDS, who attended the first day of the classroom training.

Figure 1: Timeline of interventions and follow-up surveys



2.2 COVID-19 in Kenya

To contain the spread of COVID-19, the Government first took action in mid-March 2020 by shutting down restaurants and bars, prohibiting social gatherings comprising more than five individuals, interrupting international flights, imposing a nationwide curfew from nightfall, and imposing mobility restrictions in the counties of Nairobi, Mombasa, and Kwale. The initial surge of COVID-19 infections and fatalities reached its peak during the months of July and August in 2020. Subsequently, a second wave occurred between October and December of the same year, followed by a third wave that emerged in April and May of 2021. Educational institutions were closed from March 16, 2020, and began a phased reopening, with schools fully reopening in January 2021. However, a new lockdown and school closures were introduced from March to May 2021.

Early evidence documented large negative impacts of COVID-19 on economic activity and households' living standards in Kenya (Miguel et al. 2020; Janssens et al. 2021; Miguel and Walker 2021; Heemann, Pape, and Vollmer 2022). The impacts on the Kenyan economy were particularly felt in the tourism and service industries, remittances, and cash and export crops. This led to a sharp increase in the unemployment rate, which more than doubled to 10.4% in the second quarter of 2020 (World Bank, 2020). Among entrepreneurs, from January and February to July 2020, many microenterprises had to temporarily shut down. Average sales and profits declined by nearly 40% and 50% respectively during that initial period. Despite their availability, only 40% of microentrepreneurs were aware of business loan and payment deferral programs between May and July 2020, less than 10% of young

entrepreneurs were aware of other assistance programs provided by the government and NGOs, and almost none had taken advantage of them (World Bank, 2020). Domenella et al. (2021) conducted two rounds of phone surveys in July-August and then in October-December 2020 among a different random sample of KYEOP businesses, documenting large negative impacts on business ownership, sales, and profits.

The COVID-19 impacts in Kenya varied by gender. Between February and June 2020, the average number of hours worked by wage workers dropped by a significant 23%, but the reduction was even more pronounced among women, who experienced a 30% decrease, with a consequent larger reduction in earnings (World Bank, 2020). Xu, Delius, and Pape (2022) show that male- and female-headed households had different coping strategies during the COVID-19 shocks explained by female-headed households being poorer to begin with and relying more on social networks to deal with shocks even prior to the pandemic. Biscaye, Egger, and Pape (2022) suggest that the partial school reopening in October 2020 substantially increased both males and female labor supply. They also find that both women and men increased hours spent on childcare during the pandemic.

3. Data and Summary Statistics

3.1 Data

This paper uses data from three sources: (i) in-person baseline survey collected in January and February 2020, prior to any COVID-19 related restrictions were adopted; (ii) a follow-up phone survey conducted between October and December 2020 to collect data on the gendered impacts of COVID-19 on individuals' business, economic, and time-use outcomes; and (iii) a second follow-up phone survey conducted between October and December 2021. The phone surveys collected data on outcomes at the time of the survey, as well as inquired retroactively about respondents' time use and their spouses' income- in February 2020. We concentrate the analysis to married couples given the risks identified in the literature of limited impacts of cash grants to women in such cases, and the importance of understanding how these would be impacted by the crises.

The baseline survey included 9,380 respondents covering 15 counties. For the first follow-up survey, eligible individuals had to: (i) be married or living together at baseline; and (ii) they could not have been a respondent of the other post-COVID surveys, which had been randomly sampled (Domenella et al. 2021). Hence, we randomly selected 2,000 respondents from this subsample stratifying by county, gender, and treatment status with respect to business grants and BDS.[6] The final sample from the first follow-up survey consists of 1,888 respondents, after attrition and dropping six individuals who had been incorrectly labelled as married or living together at the time of the baseline survey. The second follow-up survey

[6] The geographic counties were divided in three clusters. The sampling strategy consisted of selecting 85% of the available "pure controls" in each of the clusters. The rest of respondents within each cluster were selected as follows: 60% grants recipients, and 40% non-grants recipients. We kept a gender ratio of 55% female, 45% male in each component. The waiting list and replacement criteria followed the sampling strategy of the main list.

interviewed 1856 individuals, of which 1,715 of them had also participated in the first follow-up survey. These 1,715 individuals comprise this paper's main analytical sample.

The baseline survey collected data on individual demographics, labor, income, and business outcomes. To study the economic impacts of the pandemic, and in particular, the mechanisms through which the effects may differ by gender, the follow-up phone surveys included a subset of the economic and business outcomes from the baseline, and introduced new modules that focused on pandemic-induced mitigation strategies, time use, intra-household dynamics, and subjective well-being. Appendix B describes some of these specific variables used in this paper.

In terms of business sales and profits, the follow-up surveys, due to their phone format, only collected these data with respect to the primary business the respondent spent the most hours at the time. Therefore, for comparability reasons, in the analysis of business outcomes, we restrict the sample to those individuals that reported owning only one or zero businesses at baseline (91% of the sample).[7]

In addition, the baseline and 2021 follow-up surveys also gathered comparable data on income earned from other activities. In particular, the survey first asked the respondent whether in the last week they had worked on any of the following activities for at least one hour: employee for compensation, own business, own farm/livestock, helped in a business/enterprise, helped in an agricultural activity/livestock, volunteer, and intern/apprentice. We construct an "income from primary activity" variable with their income earned in the last completed month, replacing it with a zero if the question was not administered because they did not participate in any of the listed activities. As a robustness check, we also add the monetary value of any in-kind compensation. In the follow-up surveys, we also gathered information on the income of the respondent's spouses.

To investigate the impacts of the pandemic on domestic and childcare needs, the follow-up surveys collected data on time use through a 24-hour recall diary. Participants were asked to report the number of hours spent on various activities during a typical working day. In the follow-up survey conducted in 2020, we also inquired about their time use prior to COVID-19, phrasing the question as a typical working day in February 2020. To mitigate any survey design biases, we randomized the order in which participants were asked about their time use in February 2020 or at the time of the follow-up survey. In the 2021 follow-up survey, we only asked about their current time use.

In the follow-up surveys, we also gauged the respondents' perceptions of changes in intra-household dynamics since the COVID-19 outbreak by presenting them with three vignettes. We randomized the order and language of the vignettes, which either presented scenarios that improved or worsened the respondents' intra-household position. We applied the same

[7] The results are consistent when including those respondents that owned more than one business at baseline.

conceptual randomization to the three vignettes. The first vignette describes an individual who feels that, since the outbreak of COVID-19, their partner controls more (or less) than before how the household money is spent. The second vignette describes an individual who feels that their voice is heard less (or more) inside the household when it comes to making important decisions than it was six months ago. The third vignette describes an individual who feels that their household's well-being depends more (or less) than before COVID-19 on her partner's income. The hypothetical individuals described in the vignettes had the same gender as the respondents and had common names in the Kenyan context. We then asked the respondent if they were like the person described after each of the three vignettes. If the answer was "yes", we followed up with the question "Are you completely the same or somewhat the same?" If the answer was "no" the follow up question was "Are you completely different or somewhat different?"

Finally, the follow-up surveys included questions about the respondent's subjective well-being. This included perception of current and future life quality, current food security, as well as satisfaction with their current work-life balance.

3.1 Pre-COVID Summary Statistics

Table 1 presents summary statistics of the baseline survey collected in January and February 2020, before COVID-related restrictions were imposed in Kenya. The sample comprises youth with an average age of 26 years old. Around 70% of them have completed secondary education. In terms of family structure, female respondents lived in slightly larger households than their male counterparts, and resided with a larger number of underage children, although men lived, on average, with more young children under the age of four, consistent with men in the sample having their first child at an older age than women (24.1 vs 21.6).

At baseline, women earned a lower income than men and had less sources of income. With regards to business outcomes, 58% of women and 62% of men were business owners at baseline, and the difference is not statistically significant. However, we do observe pre-pandemic gender gaps in terms of business sales and profits with female businesses performing worse. Based on the answers from the time-use diaries collected in the 2020 follow-up survey, women reported spending fewer hours working and more hours doing domestic work and caring for children than men on a typical working day in February 2020. Table C1 shows that there were also baseline gender differences in the types of business sectors, with women more likely to own businesses in retail trade as well as in accommodation and food services, while less likely to own businesses in the agricultural, information and communication, manufacturing, and transportation sectors.

Baseline characteristics of both female and male respondents in the interventions treatment and control samples are also well balanced (columns (4) to (9) in Table 1). We brought

together in the control group both the pure control and the "BDS only" treatment arms due to sample size limitations—robustness checks splitting the two are provided in the results section.

4. The Impacts of COVID-19 on Gender Gaps Among Youth Entrepreneurs

In this section, we present the estimation strategy to study the gendered impacts of COVID-19 on individual outcomes and discuss the results, including potential mechanisms.

4.1 Estimation Strategy

We study the impacts of the COVID-19 pandemic estimating the following model:

$$Y_{it}=\beta_1 \text{Covid } 2020_t * \text{Female}_i+\beta_2 \text{Covid } 2021_t * \text{Female}_i+\mu_i+\theta_t+\gamma Z_{it}+\varepsilon_{it} \quad (1),$$

where Y_{it} is the outcome variable of respondent i and survey round t. $\text{Covid } 2020_t$ and $\text{Covid } 2021_t$ are indicator variables equal to one if the observation was collected during the post-COVID 2020 and 2021 follow-up surveys, respectively; $Female_i$ is an indicator equal to one for female respondents; μ_i are individual fixed effects that allow controlling for time-invariant individual heterogeneity; θ_t are survey fixed effects; and Z_{it} include survey-county fixed effects, and survey-pre-Covid business sector fixed effects, including not owning a business as a separate category. Finally, ε_{it} is the error term which we cluster at the individual-level.

The main coefficients of interest are β_1 and β_2, which capture the difference in the impact of the pandemic on women versus men over time, i.e., the evolution of the gender gap over time. The identification strategy consists of comparing the outcome variables of male and female respondents relative to February 2020, once controlling for time-invariant individual heterogeneity, common shocks across individuals, and differential time trends based on pre-COVID location and business sector characteristics. The model specified in equation (1) is used when data is available from the baseline and the two follow-up surveys. For a set of outcome variables, we only have comparable measures in the baseline and the 2021 survey. Therefore, for these variables, the main coefficient of interest is only β_2.

4.2 Results: Impact of COVID-19 on Business Outcomes

4.2.1 Women further impacted from the pandemic on Business Ownership and Performance

The COVID-19 pandemic impacted women's business ownership more negatively than men's, both at the extensive and intensive margins, with persistent impacts even close to two years past the start of the pandemic. Table 2 shows the results of estimating equation

(1) for the likelihood of owning a business. Once controlling for baseline business sector, including not owning a business as a separate category, women are five percentage points less likely than men to own a business in late 2020, with the gap persisting in late 2021, as compared to baseline. When splitting the sample based on whether respondents already owned a business at baseline, we see that the increased gender gaps are observed both in terms of business survival (columns (3) and (4)) and business entry (columns (5) and (6)). We find the same patterns in the intensive margin with number of businesses as the outcome variable (Table C2).

The pandemic also had a very large impact on the gender gap in business sales and profits.[8] Table 3 shows that COVID-19 increased the gender gap in business sales (columns (1) and (2)) and profits (columns (3) and (4)) among pre-pandemic business owners.[9] In 2021, the gender gap in monthly sales and profits increased compared to baseline (January/February 2020) by approximately Ksh. 4,000 and 1,500, respectively, which is about an 80% increase relative to pre-pandemic gaps. The effects are very similar regardless of controlling for baseline business sector. The differential gender business closure is not driving the increased gender gaps in sales and profits, as results are about the same when restricting the sample to surviving businesses (columns (1) to (4) of Table C3). Furthermore, the main results, as explained in section 3, include those individuals that reported owning only one business at baseline. However, since these respondents might also own more than one business post-COVID, or since respondents might have changed entirely the business that they were running pre-COVID, columns (5) to (8) in Table C3 further narrows down the sample to those individuals that still report owning the same one business at follow-up. The estimates are significantly less precisely estimated but they are in line with the main results.

Finally, columns (5) and (6) of Table 3 show that among those that did not own a business at baseline (690 respondents) and started one during the pandemic (384 respondents), women opened businesses with significantly lower sales and profits than the new businesses men opened during this time, with wider gender gaps than those of pre-existing business back in early 2020.

4.2.2. Exploring Mechanisms

The findings suggest the pandemic induced a widening in gender gaps in terms of both business ownership and business performance. Previous literature (Alfonsi, Namubiru, and Spaziani 2022; Alon et al. 2022a, 2022b), indicates that gender differences in pre-pandemic industrial sectors and changes in domestic responsibilities during the crisis may be potential explanations. However, gender differences in occupational sectors and domestic care needs

[8] As explained in section 3, we collected these data both in the baseline and in the 2021 follow-up survey. However, the latter survey only collected profits and sales data on the primary business where the respondent spent the most hours. Therefore, for comparability reasons, columns (1) to (4) in Table 3 restrict the sample to those individuals who reported owning only one business at baseline (84.8% of those with businesses).

[9] Both monthly sales and profits are winsorized at the 5% level on both tails.

are not the only factors that can contribute to the widening of gender gaps during a crisis like COVID-19. For instance, women may have faced greater challenges in adapting their business to the pandemic due to pre-existing gender gaps in resources and capabilities. It could also have gone in the other direction. If men's businesses were initially sufficiently more successful, they could had more to lose in the face of a severe crisis. Although we cannot precisely test all of these possibilities, our data allow us to provide some suggestive evidence.

Our results suggest that the role played by the sector is limited in explaining the changes in gender gaps. The coefficients of interest in Table 3 are similar with (columns (2) and (4)) and without (columns (1) and (3)) the inclusion of survey-pre-COVID business sector. Still, heterogeneity analysis, where we fully interact equation (1) with business sector dummies, shows that gender gaps did widen the most in the retail and health sectors (Table C4).

To explore the potential role played by domestic and childcare needs, we use the time-use data collected with the 24-hour recall diaries and estimate equation (1) with the number of hours spent in different activities as the outcome variable. The results are presented in Tables 4 and 5, the latter restricting the sample to those individuals who reported spending at least 15 minutes in working or training activities in February 2020.[10] Prior to COVID-19, women already dedicated a greater number of daily hours to domestic work and children-related activities, while men spent more hours in training, working, and leisure and social activities. The differential effect of the pandemic on women's time in childcare relative to men is 0.27 hours per day in 2020 and 0.22 hours per day in 2021, a 31% and 26% increase relative to the pre-pandemic gender gap in childcare hours. Almost a year after the pandemic outbreak, the childcare gap comes at the expense of women reducing their working hours relative to men. The magnitude of the decrease is large, with women working 0.4 hours per day less than men in 2020. Two years after, in the fall of 2021, women have somewhat adjusted by reducing domestic work but, worryingly, they have also decreased sleep. Furthermore, this result of "catch-up" on work hours in 2021 seems to mask important heterogeneity by prior working status. If we only compare individuals that were working before COVID-19 (Table 5), the increased childcare needs still come at the expense of an increased gap in working hours in 2021, with women working 0.58 hours per day less than men, which is 34% less than pre-COVID.

To explore the role that increased gaps in childcare hours may play in explaining the business gaps results, we run separate regressions for each outcome of interest in which we fully interact our main model, equation (1), with the number of hours respondents reported spending with children. This includes time spent helping them with school activities, taking care of them (e.g., feeding, washing, dressing, watching over, putting to sleep), and playing with them. The coefficients of interest correspond to the following interactions:

[10] The time-use modules allowed respondents to report time allocations in blocks of 15 minutes or more, hence the dependent variable has increments of 0.25.

$Childcare_{it} * Covid\ 2020_t * Female_i$ and $Childcare_{it} * Covid\ 2021_t * Female_i$. These interactions capture the gender gap in the business impacts of the pandemic, conditional on the time spent on childcare. If gender differences are, at least partly, due to mothers being more affected by the rise in childcare hours than fathers, we would expect these coefficients to be negative. Our findings in Table C5 support this hypothesis, as the coefficients are indeed negative and statistically significant when the outcome variables measure business ownership (column (1)). Columns (2) and (3) indicate that the childcare effects were more relevant in the short-term for business entry, but more important for business survival in the medium-term. In contrast, columns (4) to (7) suggest childcare needs do not correlate with the pandemic-induced gender gaps in business sales and profits.

Finally, we find evidence indicating women had a harder time adapting their business to the crisis challenges. We observe that female business owners were less likely than male business owners to start online sales or remote work arrangements, receive national or local government support, and take a loan to sustain business operations in response to COVID-19 (Table 6).[11] We also examine whether differences in adapting business operations might partially explain the increased gender gaps on business outcomes during the pandemic. We re-estimate equation (1) pooling data from the baseline and 2021 follow-up survey, fully interacting the model with each of the possible business changes. Table C6 shows that the COVID-19-increased gender gaps in business ownership, sales, and profits, are only present among those business that switched to online sales and/or remote work arrangements, which are presumably the businesses more directly affected by the government lockdowns. We also observe that the increased gender gap in business ownership is not present among those that received any national or local government support in response to the crisis.

4.3 Results: Impact of COVID-19 on Intra-Household Income Dynamics and Perceived Bargaining Power

The results on business outcomes suggest that the pandemic had a greater impact on female-owned businesses than on male-owned businesses. This implies that women's income generating capacity may have been more negatively affected than men's across the board. To investigate further, we estimate equation (1) using the following outcome variables: an indicator variable equal to one if the respondent reports having at least one source of income, the number of sources of income, and income earned from their primary activity. Table 7 shows that even two years after the pandemic, the gender gap in income diversification and in income earned from the primary income-generating activity substantially increased. In 2021, the gender gap in the number of sources of income increased by 0.13 (44% increase

[11] Trying to understand how the pandemic could have affected business operations, we asked a series of questions around six possible business changes in the two follow up surveys. In the first survey, the question was "Did your business experience the following change in response to the COVID-19 outbreak?", and in the second round in 2021 "Did your business experience the following change since December 2020?". For each possible business change k, we build an indicator variable BC_i^k equal to 1 if the answer is "Yes" in any of the two follow-up surveys. Table 6 presents the results of regressions for each of these indicator variables on a female dummy and other individual characteristics (age, education, county, pre-Covid business sector, and treatment status).

relative to the pre-pandemic gap, as per column (1)) and by Ksh. 6,600 in primary income, accounting for in kind compensation, (119% relative to pre-pandemic gap, 33% winsorizing at 5%, as per columns (3) to (6)).[12]

The gendered impacts on income-generating capacity suggest that the pandemic may have had a detrimental impact on gender gaps in earnings between spouses. To assess this, we calculate a proxy of spousal income gaps by subtracting the respondent's income from primary activity (column (5) in Table 7) from their spouses' income, reported by the respondent.[13] Columns (7) and (8) in Table 7 show a substantial increase in the spousal income gap for female respondents compared to their male counterparts. It is important to note that this coefficient should be interpreted with caution due to potential measurement error of respondents estimating their spouse's income, and the fact that 6% and 16% of respondents at baseline and follow-up, respectively, did not provide an estimate, with women being twice as likely to not report a number. It is also possible that the pandemic may have affected the likelihood of spouses to hide income, or the magnitude of income losses, from each other, and this effect may have been different for each gender. Nevertheless, the change in underreporting or overreporting would need to be significant to fully explain the reported increased gender gap in spousal income gaps.

Previous research has shown how shocks that reduce an individual's relative ability to contribute to the household may negatively affect their intra-household bargaining power (Chiappori and Mazzocco 2017; Baland and Ziparo 2018). We examine this possibility using the responses to three different vignettes that describe changes in intra-household dynamics caused by the pandemic (see section 3 and Appendix B). The three vignettes are coded on a scale from one to four, with four indicating the largest decline in intra-household position as described by each vignette. Our findings show that women are more likely than men to identify with situations where their intra-household position has deteriorated, even almost two years after the pandemic started (Table 8).[14] In column (1), the outcome variable is a standardized index based on the average of the three vignettes: Women's index is 0.57 and 0.43 standard deviations higher than men's in the 2020 and 2021 post-covid surveys, respectively. The gender gap persists in time across the three vignettes, (columns (2) to (4)), although it seems to decrease over time (significant difference between 2020 and 2021 for the index and for vignette V1).

[12] The income variable was collected asking respondents how much income they had earned in their primary activity in the last completed month, identifying as primary the activity where they earned the highest income. This question was skipped among those respondents who reported working in their own business as the only working activity in the last month. If respondents only report activity related to their own business, we consider their profits from the primary business as their income from primary activity. Appendix Table C7 shows the results are robust when restricting the sample to individuals that only reported one or zero activities at baseline and one or zero activities both at baseline and at the follow-up survey.

[13] We asked the respondent "Approximately, how much income did your spouse/partner earn in total last month?".

[14] The results are based on estimating equation (1) without baseline data.

5. Experimental Evidence on Gender Impacts of Entrepreneurship Support during COVID-19

5.1 Estimation Strategy

To study the gendered effects of the randomized entrepreneurship interventions during the COVID-19 pandemic, we estimate regressions pooling data from the baseline survey and the 2021 follow-up survey, with the following specification:

$$Y_{it} = \pi_1 Covid\,2021_t * Grants\ only_i + \pi_2 Covid2021_t * Grants\ only_i * Female_i + \pi_3 Covid\,2021_t * Grants\ and\ BDS_i + \pi_4 Covid\,2021_t * Grants\ and\ BDS_i * Female_i + \beta Covid\,2021_t * Female_i + \mu_i + \theta_t + \gamma Z_{it} + \varepsilon_{it} \quad (2),$$

where $Grants\ only_i$ and $Grants\ and\ BDS_i$ are indicator variables equal to 1 if the respondent received the "grants only" or the "grants and BDS" treatments, respectively. The omitted categories pool together the BDS only treatment group and the pure control, due to sample size limitations (from now on referred as "comparison group").[15] The rest of the controls mirror equation (1) and standard errors are clustered at the individual level.

The coefficients π_1 and π_3 capture the grants and grants and BDS treatment effects for men. The sum of $\pi_1 + \pi_2$ and $\pi_3 + \pi_4$ correspond to the treatment effects on females of receiving grants only and grants and BDS, respectively, with π_2 and π_4, capturing the differential gendered effect of the grants only and grants and BDS treatments, respectively.

In Appendix C1, we also present the main results estimating the "BDS only" treatment effect separately and show that relevant results are mostly driven by the grant interventions. Given the experimental variation exploited in equation (2), the model can also be estimated with an ANCOVA specification that, as we show in Appendix C, yields comparable results and more precisely estimated coefficients.[16]

5.2 Results: Causal Evidence of Receiving Business Grants

5.2.1 Business Grants Effective for both Male and Female Entrepreneurs

Table 9 presents the impacts of the grants and of the grants and BDS on business ownership (columns (1) to (3)) and performance (columns (4) and (5)). The grants with or without the

[15] Domenella et al. 2021 find no impact of BDS only and our earlier analysis also finds no impact of BDS only: In a time of crisis with large economy-wide shocks both in terms of demand and in terms of mobility restrictions, business advice alone may not suffice to support businesses that need cash infusion to help protect assets and maintain the fixed costs needed for business operations.

[16] The ANCOVA specification is as follows: $Y_i = \alpha_1 Grants\ only_i + \alpha_2 Grants\ only_i * Female_i + \beta_1 Grants\ and\ BDS_i + \beta_2 Grants\ and\ BDS_i * Female_i + \Gamma_i + \gamma Y_{i0} + \theta Missing\ basline_i + \epsilon_i$, where the data comes from the 2021 follow up survey, Γ_i are dummy variables for the randomization stratification variables, and Y_{i0} are the outcome variables measured during the baseline period, whenever available. Y_{i0} values are set to zero when the baseline value is missing and $\theta Missing\ basline_i$ is an indicator variable equal to one when this is the case.

BDS led to an increase of 19 to 26 percentage points on the likelihood of having a business at the end of 2021. The impacts are large in proportion to the comparison group's mean.

In addition, Table 9 shows that there are no differential treatment effects on business ownership by gender. Still, in relative terms to the comparison group, the impacts are much larger for women than for men: for grants, the impacts on business ownership are 40% for women against the comparison group vs 31% for men. The relative effects are particularly large for business entry, where the grants increase the probability of starting a business by 32 percentage points for men and 33 percentage points for women, representing respectively a 74% and 91% increase relative to the comparison group. While the point estimate for Grants and BDS is higher than for Grants Only, the difference is not statistically significant.

The grants were also effective in boosting performance of male and female entrepreneurs during the pandemic. Male businesses that received the grants saw an increase in monthly sales by Ksh. 7,800 and profits by Ksh. 2,600 (a 43-45% increase relative to the comparison group). Female businesses that received grants had business sales that were Ksh. 4,400-5700 higher, representing also more than 40% increase relative to the comparison group. The impacts on profits for female businesses are also positive of about 25% relative to the comparison group mean, but not statistically significant. The ANCOVA results (Table C8) also show similar results. Finally, receiving BDS in addition to the grant (Table 9) or by itself (Table C9) had no meaningful (additional) impacts on business operations.[17]

Table 10 shows that the grants had large impacts for women on the likelihood of having any source of income and the overall income from any source (from both businesses and other sources). While 99% of the men in the comparison group already had at least one source of income, and therefore, grants did not have a significant effect at this margin, for women, the grants had a large effect on the likelihood have any source of income (11 pp, 14% increase relative to the comparison group). In terms of income from primary activity, the grant treatment effects were also positive and large for both men and women (see also Ancova results in Table C10). Note that, by construction, as explained in section 3, this variable was collected for respondents who reported a main income-generating activity other than their own business, or replaced with profits when their business was the main activity, and it should be read in parallel with the business outcomes results reported in Table 9.[18]

5.2.2 Positive effects also on Wellbeing and Channels of impact

In this section, we show that grants and grants and BDS also had significant gender-differentiated impacts on other aspects of well-being.

Using answers from the time-use diary, we observe that grants, and in particular the

[17] This is consistent with the results of Brooks et al. (2018), also with marginalized female microenterprise owners in Kenya.
[18] ANCOVA results are consistent and there is not a differential effect of BDS only (Tables C10 and C11).

combination of grants and BDS, were effective at increasing women's working hours in a typical day (Table 11). While there were decreases in domestic work, childcare, and leisure activities for women as a result of the grants, these had no significant impact on men's time allocations, and if anything, the point estimates suggest the opposite pattern emerges: grants reduce the time men spent working and increase their time spent on leisure and domestic work activities.

Furthermore, we included a set of standard subjective-wellbeing questions in the 2021 follow-up survey (see Appendix B). While it may be challenging to evaluate changes in time allocations from a normative perspective, as increasing female working hours at the expense of leisure time may not necessarily improve welfare (Eissler et al. 2021), the positive effects on business and income variables suggest that grants were potentially effective in improving individuals' well-being. Table 12 reports the results, which show that the grants had strong positive impacts on subjective well-being across outcomes, although less so for women than for men. The point estimates on the differential treatment effects are negative, sizable, and statistically significant, except for food security, but the grants are still quite effective for women as compared to the comparison group. Appendix Table C13 also shows that BDS only was effective for men's life satisfaction.

6. Discussion and conclusion

The findings from this study demonstrate that married women entering entrepreneurship and operating small-scale businesses in Kenya were significantly impacted from COVID-19 in their economic and household activities, and more so than married men. With women also less likely –as discussed in this study– to know about and explore opportunities for mitigating these effects through government programs and access to finance, identifying, for the future, timely crisis-response mechanisms are of paramount importance for policy targeting.

However, the challenge is that the menu of mechanisms to support female entrepreneurship is limited, and the evidence is especially weak for supporting resilience in time of crises (Bandiera et al. 2019). Against this dearth of alternatives, this study identifies that providing grants can be a very effective mechanism of supporting (married) women entrepreneurs in a time of crisis. The impacts presented are large and cost-effective.

The effects are also encouraging when considering the mixed results of grants (Fafchamps et al. 2014) and microcredit (Banerjee et al. 2015) to existing female-owned businesses. The impacts of programs are heterogenous, given the diversity of the profiles of potential entrepreneurs. At one extreme, the large-scale grants in the context of business plan competitions have been shown to achieve strong impacts on both men- and women-led businesses (McKenzie 2017), but at the cost that these programs require large funding per beneficiary and are designed so that only a small proportion of participants win (typically around 5%). Hence, they are not targeting the same group of entrepreneurs as those studied

in this program.[19] Furthermore, their selection and due diligence process typically results in a significant time between an entrepreneur's initial application period and the disbursement of the funding. At the other extreme, there are grants in cash transfer and economic inclusion programs, typically targeting very poor groups of the population, which lead to economic impacts including through new self-employment opportunities, especially in rural areas, where entrepreneurship is often a hedge against the volatility in income (Banerjee et al. 2015).

In between the two groups (vulnerable households and high growth entrepreneurs), the impact of (small) cash grants on the performance of female entrepreneurs operating existing businesses in urban areas is low. This is in contrast with impacts for male-owned businesses and in providing those grants in-kind (Fafchamps et al. 2014). The debate on the reasons for the lack of impact of cash grants for existing women entrepreneurs includes, as first area of explanation, the efficiency or not in the allocation of resources in the household, in particular if grants to female entrepreneurs are diverted to the businesses of their partners (Bernhardt et al. 2019). In our study, we find that the business grants were effective for female entrepreneurs whose spouses were also entrepreneurs (Table C14).

A second area of work relates to expropriation pressures (Fiala 2017). Riley (2022) shows that providing loans in mobile money leads to higher levels of business capital and profits compared to a control group who received their loan as cash. In our study, the grants were provided in individual bank accounts. There is a growing body of evidence on the importance of bank accounts for shielding income for business investment (World Bank 2019). Table C15 shows that the effects of the grants are similarly impactful, in terms of business entry, for both women with and without personal savings accounts at baseline, suggesting that the most important element of the package is the grant. In addition, women who already had personal savings accounts at baseline enjoyed larger impacts from the grants on business survival and business performance. This finding is indicative that the positive impacts are not driven by the opening of savings accounts.

In conclusion, while the pandemic had persistent and large negative effects on female entrepreneurship's performance, the introduction of mid-size grants (equivalent to seven times the monthly average income earned by women) led to significant improvements on both business performance and well-being for women facing multiple constraints. While resources are necessarily limited during a crisis, it is important for policymakers to be aware that there is indeed scope for making a substantial difference in the lives of this already vulnerable population. Future work could help to target even more finely in terms of recipient characteristics, business sectors, and timing.

[19] KYEOP included a separate business plan competition targeting high-growth entrepreneurs with potential for job creation on a separate set of participants than the one in this study.

References

Acevedo, I., Castellani, F., Lotti, G. and Székely, M., 2022. Labor Market Gender Gaps in the Time of COVID-19 in Latin America and the Caribbean. Available at SSRN 4254164.

Afridi, F., Dhillon, A. and Roy, S., 2023. The Gendered Crisis: Livelihoods and Well-Being in India During COVID-19, Feminist Economics.

Aguero, Jorge M., 2021. COVID-19 and the Rise of Intimate Partner Violence. World Dev. 137, 105217.

Alfonsi, L., Namubiru, M. and Spaziani, S., 2022. Gender Gaps: Back and Here to Stay? Evidence from Skilled Ugandan Workers during COVID-19. Working Paper.

Alon, T., Coskun, S., Doepke, M., Koll, D. and Tertilt, M., 2022. From mancession to shecession: Women's employment in regular and pandemic recessions. NBER Macroeconomics Annual, 36(1),

Alon, Titan, Matthias Doepke, Kristina Manysheva, and Michèle Tertilt. 2022. "Gendered Impacts of COVID-19 in Developing Countries." AEA Papers and Proceedings, 112: 272-76.

Andrew, A., Cattan, S., Dias, M.C., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A. and Sevilla, A., 2020. The gendered division of paid and domestic work under lockdown. Fiscal Studies.

Baland, J.M. and Ziparo, R., 2018. Intra-household bargaining in poor countries. Towards gender equity in development, 69(1).

Biscaye, P.E., Egger, D.T. and Pape, U.J., 2022. Balancing Work and Childcare. Working Paper.

Bandiera, O., Buehren, N., Goldstein, M., Rasul, I., and Smurra, A., 2019. The Economic Lives of Young Women in the Time of Ebola: Lessons from an Empowerment Program. World Bank Policy Research Working Paper Series 8760.

Banerjee, A., Duflo, E., Goldberg, N., Karlan, D., Osei, R., Parienté, W., Shapiro, J., Thuysbaert, B., Udry, C., 2015. A multifaceted program causes lasting progress for the very poor: Evidence from six countries. Science, 348.

Bardasi, E., Gassier, M., Goldstein, M., and Holla, A., 2021. The Profits of Wisdom: The Impact of a Business Support Program in Tanzania. The World Bank Economic Review, Volume 35, Issue 2, May, pp. 328-347.

Bernhardt, A., Field, E., Pande, R. and Rigol, N., 2019. Household matters: Revisiting the returns to capital among female microentrepreneurs. American Economic Review: Insights, 1(2), pp.141-60.

Blattman, C., Fiala, N. and Martinez, S., 2014. Generating Skilled Self-Employment in Developing Countries: Experimental Evidence from Uganda. The Quarterly Journal of Economics, Volume 129, Issue 2, May, pp.697-752.

Bottan, N., Hoffmann, B. and Vera-Cossio, D.A., 2021. Stepping up during a crisis: The unintended effects of a noncontributory pension program during the Covid-19 pandemic. Journal of Development Economics, 150, p.102635.

Brooks, K.M., Filmer, D.P., Fox, M.L., Goyal, A., Mengistae, T.A., Premand, P., Ringold, D., Sharma, S., and Zorya, S., 2014. Youth employment in Sub-Saharan Africa (Vol. 2): Full report.

Africa development forum, World Bank, Washington, D.C.

Brooks, W., Donovan, K. and Johnson, T.R., 2018. Mentors or teachers? Microenterprise training in Kenya. American Economic Journal: Applied Economics, 10(4), pp.196-221.

Brooks, W., Donovan, K., Johnson, T.R. and Oluoch-Aridi, J., 2022. Cash transfers as a response to COVID-19: Experimental evidence from Kenya. Journal of Development Economics, 158, p.102929.

Bruhn, M., Karlan, D., and Schoar, A., 2010. What Capital Is Missing in Developing Countries? The American Economic Review, 100(2), pp.629-33.

Buvinić, M., Furst-Nichols, R., 2016. Promoting Women's Economic Empowerment: What Works? The World Bank Research Observer, Volume 31, Issue 1, February, pp.59-101.

Chiappori, P.A. and Mazzocco, M., 2017. Static and intertemporal household decisions. Journal of Economic Literature, 55(3), pp.985-1045.

De Mel, S., McKenzie, D. and Woodruff, C., 2009. Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns. American Economic Journal: Applied Economics, 1(3), pp.1-32.

Decker, M.R., Bevilacqua, K., Wood, S.N., Ngare, G.W., Thiongo, M., Byrne, M.E., Williams, A., Devoto, B., Glass, N., Heise, L. and Gichangi, P., 2022. Gender-based violence during COVID-19 among adolescent girls and young women in Nairobi, Kenya: a mixed-methods prospective study over 18 months. BMJ global health, 7(2), p.e007807.

Del Boca, D., Oggero, N., Profeta, P. and Rossi, M., 2020. Women's and men's work, housework and childcare, before and during COVID-19. Review of Economics of the Household, 18(4), pp.1001-1017.

Delecourt, S., Marchenko, A., Fitzpatrick, A. and Lowe, L., 2022. Too close to home: Women's business location and the gender profit gap.

Domenella, Y., Jamison, J.C., Safir, A. and Zia, B., 2021. Can Business Grants Mitigate a Crisis? Evidence from Youth Entrepreneurs in Kenya during COVID-19. World Bank Policy Research Working Paper No. 9874, December 2021.

Dupas, Pascaline, and Jonathan Robinson. "Savings constraints and microenterprise development: Evidence from a field experiment in Kenya." American Economic Journal: Applied Economics 5, no. 1 (2013): 163-92.

Egger, D., Miguel, E., Warren, S.S., Shenoy, A., Collins, E., Karlan, D., Parkerson, D., Mobarak, A.M., Fink, G., Udry, C. and Walker, M., 2021. Falling living standards during the COVID-19 crisis: Quantitative evidence from nine developing countries. Science advances, 7(6), p.eabe0997.

Eissler, S., Heckert, J., Myers, E., Seymour, G., Sinharoy, S. and Yount, K.M., 2021. Exploring gendered experiences of time-use agency in Benin, Malawi, and Nigeria as a new concept to measure women's empowerment (Vol. 2003). Intl Food Policy Res Inst.

Fafchamps, M., McKenzie, D., Quinn, S., Woodruff, C., 2014. Microenterprise growth and the flypaper effect: Evidence from a randomized experiment in Ghana. Journal of Development Economics 106 (2014) 211–226.

Farré, L., Fawaz, Y., González, L. and Graves, J., 2020. How the COVID-19 lockdown affected gender inequality in paid and unpaid work in Spain.

Fiala, N. 2017. Business is tough, but family is worse: Household bargaining and investment in microenterprises in Uganda. Working Paper.

Fox, L. Senbet, L.,, Simbanegavi, W. Youth Employment in Sub-Saharan Africa: Challenges, Constraints and Opportunities, Journal of African Economies, Volume 25, Issue suppl_1, March 2016, Pages i3–i15

Gulesci, S., Puente–Beccar, M. and Ubfal, D., 2021. Can youth empowerment programs reduce violence against girls during the COVID-19 pandemic?. Journal of development economics, 153, p.102716.

Hardy, M. and Kagy, G., 2018, May. Mind the (profit) gap: why are female enterprise owners earning less than men?. In AEA Papers and Proceedings (Vol. 108, pp. 252-55).

Hardy, M., Litzow, E., McCasland, J. and Kagy, G., 2023. Gender Differences in Informal Labor-Market Resilience. The World Bank Economic Review, 37(1), pp.112-126.

Heemann, M., Johann Pape, U. and Vollmer, S., 2022. The Labor Market Implications of Restricted Mobility during the COVID-19 Pandemic in Kenya: Evidence from Nationally Representative Phone Surveys. The World Bank.

Jayachandran, S., 2021. Social Norms as a Barrier to Women's Employment in Developing Countries. IMF Economic Review.

Janssens, W., Pradhan, M., de Groot, R., Sidze, E., Donfouet, H.P.P. and Abajobir, A., 2021. The short-term economic effects of COVID-19 on low-income households in rural Kenya: An analysis using weekly financial household data. World Development, 138, p.105280.

Kugler, M., Viollaz, M., Duque, D., Gaddis, I., Newhouse, D.L., Palacios-Lopez, A. and Weber, M., 2021. How Did the COVID-19 Crisis Affect Different Types of Workers in the Developing World?.

Leslie, E., Wilson, R., 2020. Sheltering in place and domestic violence: Evidence from calls for service during COVID-19. J. Public Econ. 189, 104241.

Loayza, N.V., Ranciere, R., Servén, L. and Ventura, J., 2007. Macroeconomic volatility and welfare in developing countries: An introduction. The World Bank Economic Review, 21(3), pp.343-357.

Londoño-Vélez, J. and Querubin, P., 2022. The impact of emergency cash assistance in a pandemic: experimental evidence from Colombia. The Review of Economics and Statistics, 104(1), pp.157-165.

Mahmud, M., Riley, E., 2021. Household response to an extreme shock: Evidence on the immediate impact of the Covid-19 lockdown on Economic Outcomes and Well-being in Rural Uganda. World Dev. 140, 105318.

McKenzie, D. and Puerto, S., 2021. Growing markets through business training for female entrepreneurs: A market-level randomized experiment in Kenya. American Economic Journal: Applied Economics, 13(2), pp.297-332.

Miguel, E., Haushofer, J., Walker, M., and Egger, D. 2020. Economic activity and living standards during the COVID-19 pandemic: Evidence from rural Kenya. IGC Policy Brief KEN-20062.

Miguel, E., and Walker M., 2021. Gender effects of Covid-19: Evidence from the Kenya Life Panel Survey. G2LM|LIC Policy Brief No.36

McIntosh, C. and Zeitlin, A., 2022. Using household grants to benchmark the cost effectiveness of a USAID workforce readiness program. Journal of Development Economics, 157, p.102875.

Miguel, E. and Mobarak, A.M., 2022. The economics of the COVID-19 pandemic in poor countries. Annual Review of Economics, 14, pp.253-285.

McKenzie, D., Woodruff, C. What Are We Learning from Business Training and Entrepreneurship Evaluations around the Developing World?, The World Bank Research Observer, Volume 29, Issue 1, February 2014, Pages 48–82,

Nix, E., Gamberoni, E. and Heath, R., 2016. Bridging the gender gap: Identifying what is holding self-employed women back in Ghana, Rwanda, Tanzania, and the Republic of Congo. The World Bank Economic Review, 30(3), pp.501-521.

Riley, E. 2022. Resisting sharing pressure in the household using mobile money: Experimental evidence on microenterprise investment in Uganda. CSAE Working Paper.

Torres, J., Maduko, F., Gaddis, I., Iacovone, L. and Beegle, K., 2023. The impact of the COVID-19 pandemic on women-led businesses. The World Bank Research Observer, 38(1), pp.36-72.

World Bank, 2019. Profiting from Parity: Unlocking the Potential of Women's Businesses in Africa. World Bank.

World Bank, 2020. Kenya Economic Update, November 2020: Navigating the Pandemic. World Bank.

Table 1: Baseline Descriptive Statistics and Balance

	All			Female			Male		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Female	Male	Diff.	Grants	Grants+BDS	T-C/BDS only	Grants	Grants+BDS	T-C/BDS only
Socio-economic									
Age	25.94	26.62	–0.67***	26.12	26.07	–0.34*	26.56	26.82	–0.21
	[2.68]	[2.51]	(0.13)	[2.60]	[2.61]	(0.18)	[2.44]	[2.61]	(0.18)
Secondary education	0.67	0.72	–0.06**	0.64	0.65	0.05	0.71	0.70	0.04
	[0.47]	[0.45]	(0.02)	[0.48]	[0.48]	(0.03)	[0.45]	[0.46]	(0.03)
Household size	4.27	4.07	0.20**	4.31	4.21	0.04	4.13	4.15	–0.18
	[1.85]	[1.95]	(0.09)	[1.94]	[1.70]	(0.12)	[1.96]	[2.14]	(0.14)
# of hh minors	1.92	1.62	0.30***	1.93	1.90	0.02	1.75	1.64	–0.15
	[1.41]	[1.53]	(0.07)	[1.35]	[1.39]	(0.09)	[1.79]	[1.57]	(0.11)
# of hh children under 4	0.79	0.88	–0.09***	0.82	0.78	–0.02	0.95	0.86	–0.04
	[0.67]	[0.70]	(0.03)	[0.76]	[0.63]	(0.04)	[0.73]	[0.71]	(0.05)
Ever parent	0.96	0.92	0.04***	0.95	0.98	–0.00	0.93	0.90	0.02
	[0.19]	[0.27]	(0.01)	[0.22]	[0.15]	(0.01)	[0.26]	[0.30]	(0.02)
Age at first child	21.60	24.18	–2.59***	21.68	21.62	–0.12	23.79	24.40	0.11
	[2.94]	[2.81]	(0.14)	[3.17]	[3.11]	(0.19)	[2.91]	[2.77]	(0.21)
Sources of income	1.00	1.29	–0.30***	1.03	0.98	–0.00	1.30	1.30	–0.01
	[0.61]	[0.60]	(0.03)	[0.59]	[0.60]	(0.04)	[0.62]	[0.61]	(0.04)
Income primary activity	5,813.48	11,424.46	–5,610.97***	6,287.56	6,083.15	–822.23	11,853.55	9,699.53	1,827.97
	[12,715.80]	[18,610.88]	(795.11)	[16,846.69]	[13,248.95]	(809.58)	[14,037.07]	[9,691.44]	(1,472.36)
Owns a business	0.58	0.62	–0.04	0.65	0.57	–0.05	0.63	0.63	–0.04
	[0.49]	[0.49]	(0.02)	[0.48]	[0.50]	(0.03)	[0.48]	[0.48]	(0.04)
Primary Business									
Monthly sales (W.5%)	16,986.71	22,103.96	–5,117.25***	15,824.33	17,361.03	966.59	22,872.22	20,344.50	1,509.88
	[19,701.55]	[21,929.38]	(1,536.55)	[17,619.87]	[21,204.22]	(2,004.89)	[21,652.88]	[19,701.26]	(2,458.79)
Monthly profits (W.5%)	4,814.85	6,787.80	–1,972.94***	5,125.63	5,132.14	–757.74	7,041.26	6,929.50	–461.26
	[5,736.11]	[6,498.71]	(452.11)	[5,359.13]	[6,510.87]	(570.24)	[5,905.84]	[6,452.03]	(724.57)
Time Use									
Working hours	7.34	9.79	–2.46***	7.36	7.49	–0.21	10.12	9.86	–0.41**
	[3.65]	[2.50]	(0.15)	[3.47]	[3.65]	(0.24)	[2.56]	[2.49]	(0.18)
Domestic work hours	2.44	1.14	1.29***	2.51	2.38	–0.01	1.09	1.10	0.10
	[1.42]	[0.99]	(0.06)	[1.42]	[1.46]	(0.09)	[0.95]	[1.06]	(0.07)
Children hours	2.57	1.71	0.86***	2.61	2.57	–0.03	1.70	1.69	0.04
	[1.83]	[1.50]	(0.08)	[1.91]	[1.82]	(0.12)	[1.42]	[1.45]	(0.11)
Observations	937	778		239	286		189	253	

Notes: Columns (1) and (2) present sample means and standard deviations, in brackets, of the analytical sample for female and male respondents at baseline, respectively. Column (3) reports the OLS coefficient of a regression of the respondent's characteristic on a gender indicator variable, robust standard errors in parentheses. Columns (4) and (5) present sample means and standard deviations, in brackets, of the female respondents in the Grants only and Grants+BDS treatment groups, respectively. Column (6) reports the OLS coefficient of a regression of the female respondent's characteristic on a treatment indicator variable (equal to one if respondent assigned to pure control or BDS only), robust standard errors in parentheses. Columns (7), (8), (9) are analogous to (4), (5), and (6) for male respondents. Income from primary activity includes estimates from in-kind payment. Primary business outcomes are restricted to those respondents reporting a maximum of one primary business at baseline. The number of observations with non-missing information varies per variable. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 2: Impact of COVID-19 on Business Ownership

	Business Ownership		Business Survival		Business Entry	
	(1)	(2)	(3)	(4)	(5)	(6)
Covid 2020 × Female	-0.01	-0.05**	-0.02	-0.03	-0.07*	-0.07*
	(0.03)	(0.02)	(0.02)	(0.02)	(0.04)	(0.04)
Covid 2021 × Female	-0.01	-0.05**	-0.04*	-0.05**	-0.05	-0.05
	(0.03)	(0.02)	(0.02)	(0.03)	(0.04)	(0.04)
Individual FE	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE		✓		✓		
Observations	5,145	5,145	3,075	3,075	2,070	2,070
Pre-Covid mean, male	0.62	0.62	1.00	1.00	0.00	0.00
Covid 2020 mean, male	0.79	0.79	0.89	0.89	0.62	0.62
Covid 2021 mean, male	0.75	0.75	0.83	0.83	0.61	0.61
Pre-Covid mean, female	0.58	0.58	1.00	1.00	0.00	0.00
Covid 2020 mean, female	0.73	0.73	0.87	0.87	0.54	0.54
Covid 2021 mean, female	0.70	0.70	0.80	0.80	0.56	0.56
[Covid 2020 × female] = [Covid 2021 × female] (p-value)	0.89	0.95	0.46	0.45	0.57	0.57

Notes: OLS regressions where the dependent variable is an indicator variable = 1 if the respondent reported owning a business. Columns (3) and (4) restrict the sample to those respondents that reported owning at least one business in the baseline period. Columns (5) to (6) restrict the sample to those respondents that reported not owning any business in the baseline period. All the regressions include observations from the baseline and the two post-Covid follow-up surveys. The table reports the coefficient of the interactions between the two post-Covid surveys time dummies and female. All regressions control for individual fixed effects and county-time trends. Columns (2), (4) and (6) also include pre-Covid business sector-time trends. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2020 mean and Covid 2021 mean refer to the mean of males/females at the post-Covid follow-up surveys in 2020 and 2021, respectively. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: Impact of COVID-19 on Business Monthly Sales and Profits (W. 5%)

	Sales		Profits		New Business	
	(1)	(2)	(3)	(4)	(5) Sales	(6) Profits
Covid 2021 × Female	-3,837.02**	-3,037.61*	-1,437.09**	-1,511.06**	-6,189.84***	-3,290.08***
	(1,616.60)	(1,787.01)	(606.34)	(680.60)	(1,871.91)	(806.56)
Individual FE	✓	✓	✓	✓		
County*Survey FE	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE		✓		✓		
Observations	1,466	1,466	1,466	1,466	384	384
Pre-Covid mean, male	22,087.28	22,087.28	6,766.43	6,766.43	.	.
Covid 2021 mean, male	22,099.10	22,099.10	7,448.21	7,448.21	24,108.86	9,200.05
Pre-Covid mean, female	17,079.99	17,079.99	4,864.84	4,864.84	.	.
Covid 2021 mean, female	13,730.90	13,730.90	4,290.57	4,290.57	18,487.84	5,980.67

Notes: Columns (1), (2) and (5) present OLS regressions where the dependent variable are monthly sales winsorized at the 5% level on both tails reported in Kenyan Shillings. Columns (3), (4) and (6) present OLS regressions where the dependent variable are monthly profits winsorized at the 5% level on both tails reported in Kenyan Shillings. Columns (1) to (4) restrict the sample to those respondents that reported owning one business in the baseline period. Columns (5) to (6) restrict the sample to those respondents that reported not owning any business in the baseline period but opened a business by the time of the 2021 follow-up survey. All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the 2021 post-Covid survey time dummies and female. All regressions control for individual fixed effects and county-time trends. Columns (2) and (4) also include and pre-Covid business sector-time trends. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2021 mean refer to the mean of males/females at the post-Covid 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Impact of COVID-19 on Time Use

	(1) Childcare	(2) Work/study	(3) Domestic work	(4) Leisure	(5) Sleep	(6) Eating/self-care
Covid 2020 × Female	0.27***	-0.40**	0.11*	0.01	0.02	0.03
	(0.09)	(0.17)	(0.06)	(0.07)	(0.08)	(0.04)
Covid 2021 × Female	0.22**	0.05	-0.18**	0.09	-0.19**	0.00
	(0.11)	(0.18)	(0.08)	(0.08)	(0.09)	(0.05)
Individual FE	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓	✓	✓
Observations	5,145	5,145	5,145	5,145	5,145	5,145
Pre-Covid mean, male	1.71	9.79	1.14	2.05	7.79	1.47
Covid 2020 mean, male	1.85	9.58	1.14	2.06	7.80	1.47
Covid 2021 mean, male	2.27	9.48	1.29	2.00	7.39	1.39
Pre-Covid mean, female	2.57	7.34	2.44	1.76	8.21	1.61
Covid 2020 mean, female	3.01	6.70	2.54	1.78	8.25	1.64
Covid 2021 mean, female	3.38	7.07	2.39	1.81	7.63	1.55
[Covid 2020 × female] = [Covid 2021 × female] (p-value)	0.61	0.01	0.00	0.29	0.01	0.52

Notes: OLS regressions where the dependent variables are the number of hours the respondent reports spending on a typical working day in each activity. All the regressions include observations from the two post-Covid follow-up surveys. The baseline values were collected during the 2020 post-Covid follow-up survey retroactively. The table reports the coefficient of the interactions between the two post-Covid surveys time dummies and female. All regressions control for individual fixed effects, survey fixed effects, county-survey fixed effects, and pre-Covid business sector-survey fixed effects. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2020 mean and Covid 2021 mean refer to the mean of males/females at the post-Covid follow-up surveys in 2020 and 2021, respectively. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 5: Impact of COVID-19 on Time Use (If Worked Before)

	(1) Childcare	(2) Work/study	(3) Domestic work	(4) Leisure	(5) Sleep	(6) Eating/self-care
Covid 2020 × Female	0.39***	-0.85***	0.20***	0.13**	0.09	0.09**
	(0.09)	(0.16)	(0.06)	(0.07)	(0.08)	(0.04)
Covid 2021 × Female	0.38***	-0.58***	-0.04	0.23***	-0.12	0.07
	(0.11)	(0.18)	(0.07)	(0.08)	(0.09)	(0.05)
Individual FE	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓	✓	✓
Observations	4,851	4,851	4,851	4,851	4,851	4,851
Pre-Covid mean, male	1.71	9.84	1.13	2.04	7.77	1.46
Covid 2020 mean, male	1.85	9.60	1.14	2.05	7.79	1.47
Covid 2021 mean, male	2.26	9.48	1.29	2.00	7.39	1.39
Pre-Covid mean, female	2.36	8.15	2.23	1.59	8.13	1.52
Covid 2020 mean, female	2.90	7.06	2.42	1.73	8.24	1.60
Covid 2021 mean, female	3.32	7.22	2.33	1.79	7.63	1.54
[Covid 2020 × female] = [Covid 2021 × female] (p-value)	0.91	0.13	0.00	0.23	0.02	0.73

Notes: OLS regressions where the dependent variables are the number of hours the respondent reports spending on a typical working day in each activity. The sample is restricted to those individuals that reported positive working hours on a typical day in February 2020. All the regressions include observations from the two post-Covid follow-up surveys. The baseline values were collected during the 2020 post-Covid follow-up survey retroactively. The table reports the coefficient of the interactions between the two post-Covid surveys time dummies and female. All regressions control for individual fixed effects, survey fixed effects, county-survey fixed effects, and pre-Covid business sector-survey fixed effects. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2020 mean and Covid 2021 mean refer to the mean of males/females at the post-Covid follow-up surveys in 2020 and 2021, respectively. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: Gendered Differences in Business Changes in Response to Covid-19

	(1) Sell/transfer	(2) Online/remote	(3) Changed products/services	(4) Changed location	(5) Govt. help	(6) Formal/informal loan
Female	-0.00	-0.14***	-0.04	0.02	-0.07**	-0.08***
	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)	(0.02)
Age	0.00	-0.01**	-0.00	-0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)
Secondary	0.01*	0.04	0.05*	-0.02	0.06**	0.03
	(0.00)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
Grants	0.00	0.02	-0.03	0.12***	0.06*	-0.03
	(0.01)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Grants and BDS	0.00	-0.02	0.01	0.10***	0.04	-0.07***
	(0.01)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
County FE	✓	✓	✓	✓	✓	✓
Business sector FE	✓	✓	✓	✓	✓	✓
Observations	1,351	1,348	1,348	1,345	1,348	1,348
Outcome mean, male	0.01	0.42	0.79	0.18	0.37	0.30
Outcome mean, female	0.01	0.30	0.76	0.20	0.30	0.22

Notes: OLS regressions where the dependent variable is an indicator variable = 1 if the respondent answered yes to each of the business changes in any of the 2020 or 2021 post-Covid follow-up survey (see appendix for description of each question). In the first survey, the question was "Did your business experience the following change in response to the COVID-19 outbreak?", and in the second round in 2021 "Did your business experience the following change since December 2020?". For each possible business change k, we build an indicator variable BC_i^k equal to 1 if the answer is "Yes" in any of the two follow-up surveys. Outcome mean refer to the mean of the males/female dependent variable. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 7: Impact of COVID-19 on Income Variables

	Income Sources		Income Primary Activity				Spousal Income Gap	
					Including in kind			
	(1) Any	(2) Number	(3) Raw	(4) Win 5%	(5) Raw	(6) Win 5%	(7) Raw	(8) Win 5%
Covid 2021 × Female	-0.00	-0.13***	-6,669.39***	-1,706.59***	-6,598.25***	-1,576.81***	5,381.62***	2,818.49***
	(0.02)	(0.04)	(2,188.47)	(507.17)	(2,185.81)	(507.15)	(2,004.75)	(727.45)
Individual FE	✓	✓	✓	✓	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
Observations	3,430	3,430	3,300	3,300	3,304	3,304	2,608	2,608
Pre-Covid mean, male	0.96	1.29	11,169.61	9,536.92	11,379.94	9,715.53	-6,332.37	-4,661.21
Covid 2021 mean, male	0.99	1.50	19,259.83	13,609.68	19,509.68	13,773.19	-13749.04	-9,671.30
Pre-Covid mean, female	0.82	1.00	5,738.12	4,896.17	5,848.49	4,956.51	9,405.95	8,256.23
Covid 2021 mean, female	0.85	1.08	7,802.50	7,296.47	8,008.91	7,473.93	6,931.38	5,900.78

Notes: Columns (1) presents OLS regressions where the dependent variable are an indicator variable equal to one if the respondent reports having any source of income. Column (2) dependent variable are the number of sources of income. Columns (3) to (6) present OLS regressions where the dependent variable is the respondent's income earned from their primary activity reported in Kenyan Shillings. Columns (5) and (6) include the monetary value of any compensation they received in kind. Columns (4) and (6) are winsorized at the 5% level on both tails. Columns (7) and (8) dependent variable is the spousal income gap subtracting from the respondent's estimate of their spouse's monthly income their income as constructed in column (3). All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the 2021 post-Covid survey time dummies and female. All regressions control for individual fixed effects and county and business sector-time trends. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2021 mean refer to the mean of males/females at the post-Covid 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Impact of COVID-19 on Intra-Household Dynamics

	Vignette Index (1)	V1 Partner Control (2)	V2 Voice Heard (3)	V3 Partner Income (4)
Covid 2020 × Female	0.57***	0.26***	0.44***	0.51***
	(0.05)	(0.05)	(0.05)	(0.05)
Covid 2021 × Female	0.43***	0.12**	0.34***	0.40***
	(0.05)	(0.06)	(0.05)	(0.06)
Covid 2021	0.36	0.06	0.60**	0.12
	(0.26)	(0.31)	(0.30)	(0.29)
Constant	-0.17*	2.25***	2.19***	2.21***
	(0.10)	(0.12)	(0.11)	(0.11)
County*Survey FE	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓
Observations	3,326	3,327	3,429	3,327
Covid 2020 mean, male	-0.33	2.25	2.00	2.08
Covid 2021 mean, male	-0.22	2.28	2.05	2.22
Covid 2020 mean, female	0.25	2.50	2.45	2.58
Covid 2021 mean, female	0.22	2.42	2.41	2.61
[Covid 2020 × female] = [Covid 2021 × female] (p-value)	0.04	0.08	0.19	0.16

Notes: Column (1) dependent variable is the standardized average of the three vignettes. Columns (2) to (4) present the answers to vignette 1, 2 and 3, respectively. The three vignettes are coded on a scale from one to four, with four indicating the largest decline in intra-household position as described by each vignette. All the regressions include observations from the two post-Covid follow-up surveys. The table reports the coefficient of the interactions between the two post-Covid surveys and female. All regressions control for county- and business sector-time trends. Covid 2020 mean and Covid 2021 mean refer to the mean of males/females at the post-Covid follow-up surveys in 2020 and 2021, respectively. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 9: Grants and BDS Treatment Effects during COVID: Business Outcomes

	Business Ownership			Business Performance	
	All	Survival	Entry	Sales	Profits
	(1)	(2)	(3)	(4)	(5)
Covid 2021 × Grants	0.19***	0.11***	0.32***	8,042.80***	2,606.59**
	(0.04)	(0.04)	(0.07)	(3,092.98)	(1,145.16)
Covid 2021 × Grants × Female	0.03	0.02	0.02	-3,279.52	-1,724.87
	(0.05)	(0.06)	(0.09)	(3,821.30)	(1,446.78)
Covid 2021 × Grants and BDS	0.23***	0.15***	0.35***	8,437.25***	2,183.30*
	(0.03)	(0.04)	(0.06)	(2,779.56)	(1,118.01)
Covid 2021 × Grants and BDS × Female	0.03	-0.00	0.05	-2,704.15	-1,349.83
	(0.05)	(0.06)	(0.08)	(3,832.16)	(1,467.64)
Individual FE	✓	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓		✓	✓
Observations	3,430	2,050	1,380	1,466	1,466
Grant effect for females	0.22***	0.14***	0.33***	4763.28**	881.72
	(0.03)	(0.04)	(0.06)	(2258.83)	(883.83)
Grant and BDS effect for females	0.26***	0.15***	0.40***	5733.10**	833.46
	(0.03)	(0.04)	(0.05)	(2653.66)	(954.66)
Control+BDS only mean, male	0.62	0.75	0.43	18114.76	5715.89
Control+BDS only mean, female	0.55	0.71	0.36	11561.71	3567.73
[Grant=Grant and BDS] male (p-value)	0.32	0.39	0.61	0.90	0.73
[Grant=Grant and BDS] female (p-value)	0.28	0.76	0.29	0.71	0.96

Notes: Columns (1) to (3) present OLS regressions where the dependent variable is an indicator variable = 1 if the respondent reported owning a business. Column (2) restricts the sample to those respondents that reported owning at least one business in the baseline period. Column (3) restricts the sample to those respondents that reported not owning any business in the baseline period. Columns (4) and (5) present OLS regressions where the dependent variable are monthly sales and monthly profits, respectively, winsorized at the 5% level on both tails reported in Kenyan Shillings among respondents that reported owning one business in the baseline period. All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the post-Covid surveys time dummy and indicators for treatment (Grants only and Grants+BDS), as well as their triple interaction with female. All regressions control for individual fixed effects, county- and business sector-time trends. Control+BDS only mean refers to the mean of males/females of the pure control or BDS only groups at the 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 10: Grants and BDS Treatment Effects during COVID: Income Variables

	Income Sources		Income Primary Activity				Spousal Income Gap	
					Including in kind			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Any	Number	Raw	Win 5%	Raw	Win 5%	Raw	Win 5%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Covid 2021 × Grants	0.01	0.07	1,601.29	1,075.43	1,795.39	1,133.92	-2,259.64	-853.56
	(0.02)	(0.07)	(4,895.72)	(958.06)	(4,882.31)	(956.12)	(4,336.65)	(1,222.43)
Covid 2021 × Grants × Female	0.11**	0.26***	-111.44	1,022.44	-226.27	1,053.71	639.41	-873.60
	(0.04)	(0.09)	(4,827.67)	(1,202.76)	(4,822.13)	(1,203.89)	(4,861.74)	(1,745.25)
Covid 2021 × Grants and BDS	0.02	0.20***	822.57	1,828.88**	815.96	1,858.45**	793.83	-726.07
	(0.02)	(0.07)	(4,018.61)	(871.80)	(3,997.82)	(871.17)	(2,731.51)	(1,072.25)
Covid 2021 × Grants and BDS × Female	0.10**	0.17*	3,068.96	1,061.24	3,162.97	1,105.79	-3,252.44	-1,454.17
	(0.04)	(0.09)	(4,190.00)	(1,129.59)	(4,177.77)	(1,133.97)	(3,287.47)	(1,617.01)
Individual FE	✓	✓	✓	✓	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
Observations	3,430	3,430	3,300	3,300	3,304	3,304	2,608	2,608
Grant effect for females	0.11***	0.33***	1489.85	2097.86***	1569.12	2187.63***	-1620.22	-1727.17
	(0.04)	(0.06)	(1346.93)	(738.69)	(1368.02)	(743.59)	(2549.47)	(1240.95)
Grant and BDS effect for females	0.12***	0.36***	3891.53***	2890.12***	3978.93***	2964.24***	-2458.60	-2180.23*
	(0.04)	(0.06)	(1098.11)	(734.84)	(1127.74)	(740.83)	(1839.41)	(1208.81)
Control+BDS only mean, male	0.99	1.42	19711.62	12861.01	19846.88	12979.16	-14556.37	-9221.61
Control+BDS only mean, female	0.77	0.90	5987.31	5929.41	6164.27	6100.05	8615.17	7049.25
[Grant=Grant and BDS] male (p-value)	0.51	0.11	0.84	0.46	0.80	0.47	0.42	0.92
[Grant=Grant and BDS] female (p-value)	0.90	0.59	0.13	0.33	0.14	0.34	0.76	0.75

Notes: Columns (1) presents OLS regressions where the dependent variable are an indicator variable equal to one if the respondent reports having any source of income. Column (2) dependent variable are the number of sources of income. Columns (3) to (6) present OLS regressions where the dependent variable is the respondent's income earned from their primary activity reported in Kenyan Shillings. Columns (5) and (6) include the monetary value of any compensation they received in kind. Columns (4) and (6) are winsorized at the 5% level on both tails. Columns (7) and (8) dependent variable is the spousal income gap subtracting from the respondent's estimate of their spouse's monthly income their income as constructed in column (3). All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the post-Covid surveys time dummy and indicators for treatment (Grants only and Grants+BDS), as well as their triple interaction with female. All regressions control for individual fixed effects, county- and business sector-time trends. Control+BDS only mean refers to the mean of males/females of the pure control or BDS only groups at the 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 11: Grants and BDS Treatment Effects during COVID: Time Use

	(1) Childcare	(2) Work/study	(3) Domestic work	(4) Leisure	(5) Sleep	(6) Eating/self-care
Covid 2021 × Grants	-0.05	-0.16	0.04	0.13	0.13	-0.11
	(0.16)	(0.28)	(0.11)	(0.14)	(0.16)	(0.09)
Covid 2021 × Grants × Female	0.01	0.78*	-0.40**	-0.17	-0.08	-0.02
	(0.26)	(0.45)	(0.18)	(0.19)	(0.21)	(0.13)
Covid 2021 × Grants and BDS	-0.03	-0.34	0.23**	0.07	0.10	-0.04
	(0.16)	(0.26)	(0.11)	(0.13)	(0.14)	(0.08)
Covid 2021 × Grants and BDS × Female	-0.34	1.45***	-0.58***	-0.33*	-0.08	-0.07
	(0.24)	(0.43)	(0.18)	(0.19)	(0.20)	(0.12)
Individual FE	✓	✓	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓	✓	✓
Observations	3,430	3,430	3,430	3,430	3,430	3,430
Grant effect for females	-0.04	0.62*	-0.35**	-0.05	0.06	-0.13
	(0.20)	(0.36)	(0.15)	(0.13)	(0.14)	(0.10)
Grant and BDS effect for females	-0.37**	1.10***	-0.35**	-0.26**	0.03	-0.11
	(0.18)	(0.34)	(0.14)	(0.13)	(0.15)	(0.09)
Control+BDS only mean, male	2.32	9.39	1.26	2.02	7.37	1.42
Control+BDS only mean, female	3.49	6.47	2.58	1.93	7.70	1.59
[Grant=Grant and BDS] male (p-value)	0.92	0.54	0.13	0.69	0.86	0.46
[Grant=Grant and BDS] female (p-value)	0.11	0.20	0.98	0.12	0.85	0.82

Notes: OLS regressions where the dependent variables are the number of hours the respondent reports spending on a typical working day in each activity. All the regressions include observations from the two post-Covid follow-up surveys. The baseline values were collected during the 2020 post-Covid follow-up survey retroactively. The table reports the coefficient of the interactions between the post-Covid surveys time dummy and indicators for treatment (Grants only and Grants+BDS), as well as their triple interaction with female. All regressions control for individual fixed effects, county- and business sector-time trends. Control+BDS only mean refers to the mean of males/females of the pure control or BDS only groups at the 2021 follow-up survey.Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 12: Grants and BDS Treatment Effects during COVID: Subjective Wellbeing

	10-step ladder		Food security	Satisfaction work/life	Vignette Index
	(1)	(2)	(3)	(4)	(5)
	Perception	Expectation			
Female	0.10	0.18	-0.03	0.05	0.38***
	(0.11)	(0.13)	(0.08)	(0.08)	(0.08)
Grants	0.63***	0.38**	0.26***	0.30***	-0.18*
	(0.14)	(0.15)	(0.10)	(0.10)	(0.09)
Grants × Female	-0.40**	-0.03	-0.01	-0.23*	0.11
	(0.18)	(0.21)	(0.13)	(0.13)	(0.12)
Grants and BDS	0.56***	0.65***	0.33***	0.30***	-0.19**
	(0.13)	(0.13)	(0.09)	(0.09)	(0.09)
Grants and BDS × Female	-0.26	-0.51***	-0.14	-0.11	0.12
	(0.18)	(0.19)	(0.12)	(0.13)	(0.12)
County FE	✓	✓	✓	✓	✓
Baseline business sector	✓	✓	✓	✓	✓
Observations	1,715	1,715	1,715	1,715	1,611
Grant effect for females	0.23*	0.35**	0.25***	0.08	-0.07
	(0.12)	(0.14)	(0.08)	(0.09)	(0.08)
Grant and BDS effect for females	0.30**	0.14	0.19**	0.19**	-0.07
	(0.13)	(0.14)	(0.08)	(0.09)	(0.08)
Control+BDS only mean, male	4.06	7.34	-1.30	2.85	-0.14
Control +BDS only mean, female	4.17	7.55	-1.32	2.91	0.26
[Grant=Grant and BDS] male (p-value)	0.67	0.09	0.47	0.98	0.93
[Grant=Grant and BDS] female (p-value)	0.60	0.17	0.55	0.22	0.99

Notes: Columns (1) to (4) are OLS regressions where the dependent variables are the answers to the different measures of individual subjective well-being. Column (5) dependent variable is the standardized average index of the three intra-household vignettes. All the regressions include observations from the 2021 post-Covid follow-up survey. The table reports the coefficient of female and interactions between female and the indicators for treatment (Grants only and Grants+BDS). All regressions control for county and business sector fixed effects. Control+BDS only mean refers to the mean of males/females of the pure control or BDS only groups at the 2021 follow-up survey.Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

APPENDIX

Appendix A. Interventions

Table A1. Timeline of Interventions

	Grants' disbursement		BDS	
	Tranche 1	**Tranche 2**	**Start**	**End**
Cluster 1	3/17/2020	6/30/2020	February 2020	March 2021
Cluster 2	10/28/2020	3/4/2021	July 2020	December 2020
Cluster 3	11/17/2020	3/4/2021	July 2020	December 2020

Table A2: List of Counties by Cluster

Cluster 1	Cluster 2	Cluster 3
Mombasa	Kitui	Kilifi
Kwale	Nyandarua	Machakos
Nakuru	Kiambu	Kakamega
Kisumu	Turkana	Bungoma
Nairobi	Migori	Kisii

Appendix B. Survey Variables

Business adaptation strategies

"Did this establishment experience any of the following changes in response to the COVID-19 outbreak?". Response scale: Yes/No.

- sell the business or transfer ownership to another person? If Yes, skip the rest.
- started online sales or remote work arrangement?
- changed or decreased the type of products sold or increased delivery of goods or services?
- changed business location?
- received any national or local government support in response to the crisis?
- took loan from formal or informal lenders to sustain business operations?

Time use

Now I am going to ask you about the number of hours you spend on a typical working day in different activities. We understand you may be at the same time taking care of children while you perform the following activities. [Number of hours in a-h must add up to 24]		
Activity:	How many hours do you spend now on this activity on a typical working day in your household?	How many of the [X] hours you spend on [activity] you are also watching over children?
a. Sleep		
b. Work/studying/training (paid and unpaid), including transport/commute to workplace	|__|__|	
c. Eating/drinking/Wash yourself/get dressed/other personal care		
d. Domestic work (e.g. cooking, cleaning, shopping household goods, caring for elderly/ill, etc.)		

e. Leisure and social activities (e.g. watching tv, listening to radio, reading, meeting friends/famiily, going to church, etc.)		
Now, we will ask you about the number of hours you spent with children doing different activities. Please answer about the number of hours you were "just" doing that.		
f. Helping children with school activities		
g. Taking care of children (e.g. feeding, washing, dressing, watching over, putting to sleep)		
h. Playing with children		

Intra-household Vignettes

Now I am going to read you some stories about different individuals. This question format is different from the rest so take your time in answering. For each I will then ask you how much you are like or not like each of these people. We would like to know if you are completely different from them, similar to them, or somewhere in between. There are no right or wrong answers to these questions.

[Randomization between "less" or "more" versions. Randomization occurs once and applies to all vignettes]

	Q1 Are you like this person?	Q2 Are you completely the same or somewhat the same?	Q3 Are you completely different or somewhat different?
V1 Partner control: "[Person's name] feels that, since the outbreak of COVID-19, her/his partner controls [less/more] than before how the household money is spent "	1. YesàQ2 2. NoàQ3	1. Completely the same 2. Somewhat the same	1. Completely different 2. Somewhat different
V2 Voice heard: "[Person's name] feels that [her/his] voice is heard [less/more] inside the household when it comes to making important decisions than it was 6 months ago"	1. YesàQ2 2. NoàQ3	1. Completely the same 2. Somewhat the same	1. Completely different 2. Somewhat different
V3 Partner income: "[Person's name] feels that [her/his] household's wellbeing depends [less/more] than before COVID-19 on [her/his] spouse/partner income"	1. YesàQ2 2. NoàQ3	1. Completely the same 2. Somewhat the same	1. Completely different 2. Somewhat different

Subjective Well-being

- **Ladder: life perception and expectation.**
  - Imagine for a minute that you are living the best life you can possibly imagine. Now imagine that your life is the worst it could possibly be. Imagine a ladder with 10 steps. Suppose we say that the top of the ladder (step 10) represents the best possible life for you and the bottom (step 1) represents the worst possible life for you. Which step on the ladder best represents where you personally stand at the present time?
  - Think about your life five years from today. Which step best represents where you personally believe you will be on the ladder five years from now? Response scale: 1-10.
- **Food security.** How often did you eat a smaller meal than you felt you needed because there was not enough food in the last month? Response: never; rarely (1-2 days); sometimes (3-10 days); often (+10 days).
- **Satisfaction with work/life balance.** In a scale from 1 to 5, where 5 is very satisfied and 1 is very dissatisfied, how satisfied are you with your current work-life balance? By work-life balance, we mean the time and space you have for other things you care that are not household or business responsibilities

Appendix C. Additional Empirical Analysis

Table C1: Pre-COVID Business Sector

	Female		Male		Difference
	(1) Mean and SD	(2) Obs.	(3) Mean and SD	(4) Obs.	(5) [Female - Male]
Accomodation and food service activities	0.06	544	0.03	481	0.03**
	[0.24]		[0.18]		(0.01)
Administrative and support service activities	0.00	544	0.00	481	–0.00
	[0.04]		[0.06]		(0.00)
Agriculture, forestry and fishing	0.09	544	0.15	481	–0.06***
	[0.28]		[0.36]		(0.02)
Arts,entertainment and recreation	0.03	544	0.01	481	0.01
	[0.16]		[0.12]		(0.01)
Construction	0.00	544	0.01	481	–0.01**
	[0.00]		[0.09]		(0.00)
Education	0.01	544	0.02	481	–0.01
	[0.10]		[0.13]		(0.01)
Electricity,gas,steam, and air conditioning supply	0.00	544	0.00	481	–0.00
	[0.06]		[0.06]		(0.00)
Financial and insurance activities	0.02	544	0.01	481	0.01
	[0.15]		[0.11]		(0.01)
Human health and social work activities	0.17	544	0.15	481	0.02
	[0.38]		[0.36]		(0.02)
Information and communication	0.02	544	0.05	481	–0.03**
	[0.13]		[0.21]		(0.01)
Manufacturing	0.05	544	0.07	481	–0.02*
	[0.21]		[0.26]		(0.01)
Mining and quarrying	0.00	544	0.00	481	–0.00
	[0.04]		[0.05]		(0.00)
Other service activities	0.00	544	0.00	481	0.00
	[0.04]		[0.00]		(0.00)
Professional,scientific and technical activities	0.00	544	0.00	481	–0.00
	[0.06]		[0.06]		(0.00)
Real estate activities	0.02	544	0.02	481	–0.01
	[0.13]		[0.16]		(0.01)
Transportation and storage	0.00	544	0.12	481	–0.12***
	[0.00]		[0.32]		(0.01)
Water supply,sewerage,waste mngt. and remediation act.	0.00	544	0.01	481	–0.00
	[0.06]		[0.09]		(0.00)
Wholesale and retail trade,repair of motor vehicles	0.52	544	0.33	481	0.19***
	[0.50]		[0.47]		(0.03)

Notes: Columns (1) and (3) present sample means and standard deviations, in brackets, of the analytical sample for female and male respondents, respectively. Columns (2) and (4) present the number of of female and male respondents, respectively. Column (5) reports the OLS coefficient of a regression of the the respondent's characteristic on a gender indicator variable, robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C2: Impact of COVID-19 on Business Ownership (Intensive Margin)

	Business Ownership		Business Survival		Business Entry	
	(1)	(2)	(3)	(4)	(5)	(6)
Covid 2020 × Female	-0.07*	-0.11***	-0.08	-0.11**	-0.14**	-0.14**
	(0.04)	(0.04)	(0.05)	(0.05)	(0.06)	(0.06)
Covid 2021 × Female	-0.10**	-0.15***	-0.16***	-0.19***	-0.11**	-0.11**
	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)
Individual FE	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE		✓		✓		
Observations	5,145	5,145	3,075	3,075	2,070	2,070
Pre-Covid mean, male	0.74	0.74	1.20	1.20	0.00	0.00
Covid 2020 mean, male	1.11	1.11	1.30	1.30	0.79	0.79
Covid 2021 mean, male	1.02	1.02	1.17	1.17	0.76	0.76
Pre-Covid mean, female	0.67	0.67	1.15	1.15	0.00	0.00
Covid 2020 mean, female	0.96	0.96	1.18	1.18	0.64	0.64
Covid 2021 mean, female	0.84	0.84	0.98	0.98	0.65	0.65
[Covid 2020 × female] = [Covid 2021 × female] (p-value)	0.40	0.30	0.15	0.10	0.64	0.64

Notes: OLS regressions where the dependent variable is a continuous variable with the number of businesses the respondent reports owning. Columns (3) and (4) restrict the sample to those respondents that reported owning at least one business in the baseline period. Columns (5) to (6) restrict the sample to those respondents that reported not owning any business in the baseline period. All the regressions include observations from the baseline and the two post-Covid follow-up surveys. The table reports the coefficient of the interactions between the two post-Covid surveys time dummies and female. All regressions control for individual fixed effects and county-time trends. Columns (2), (4) and (6) also include pre-Covid business sector-time trends. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2020 mean and Covid 2021 mean refer to the mean of males/females at the post-Covid follow-up surveys in 2020 and 2021, respectively. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C3: Impact of COVID-19 on Monthly Sales and Profits (Win 5%): Surviving Businesses

	Surviving				Same 1 Business			
	Sales		Profits		Sales		Profits	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Covid 2021 × Female	-3,930.39**	-2,945.71	-1,638.76**	-1,644.78**	-4,091.92*	-2,301.66	-464.89	-266.70
	(1,781.39)	(1,968.77)	(694.89)	(768.05)	(2,383.03)	(2,647.82)	(898.05)	(965.10)
Individual FE	✓	✓	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE		✓		✓		✓		✓
Observations	1,174	1,174	1,174	1,174	680	680	680	680
Pre-Covid mean, male	23,230.17	23,230.17	7,031.22	7,031.22	25,060.78	25,060.78	7,522.01	7,522.01
Covid 2021 mean, male	27,107.17	27,107.17	9,136.12	9,136.12	27,090.04	27,090.04	8,646.81	8,646.81
Pre-Covid mean, female	17,543.03	17,543.03	4,949.37	4,949.37	20,394.54	20,394.54	5,361.56	5,361.56
Covid 2021 mean, female	17,419.13	17,419.13	5,443.05	5,443.05	18,138.66	18,138.66	5,959.31	5,959.31

Notes: Columns (1), (2), (5) and (6) present OLS regressions where the dependent variable are monthly sales winsorized at the 5% level on both tails reported in Kenyan Shillings. Columns (3), (4), (7), and (8) present OLS regressions where the dependent variable are monthly profits winsorized at the 5% level on both tails reported in Kenyan Shillings. Columns (1) to (4) restrict the sample to those respondents that reported owning one business in the baseline period and are still business owners at the time of the 2021 follow-up survey. Columns (5) to (8) further restrict the sample to those respondents that say their primary business in 2021 is the same as in February 2020. All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the 2021 post-Covid survey time dummies and female. All regressions control for individual fixed effects and county-time trends. Columns (2), (4), (6), and (8) also include and pre-Covid business sector-time trends. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2021 mean refer to the mean of males/females at the post-Covid 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C4: The Role of Business Sector: Impact of COVID-19 on Business Outcomes

	Business Survival (1)	Sales (2)	Profits (3)
Covid 2020 × Female × Agriculture, forestry and fishing	0.05		
	(0.06)		
Covid 2020 × Female × Human health and social work activities	-0.08*		
	(0.04)		
Covid 2020 × Female × Wholesale and retail trade	-0.04		
	(0.03)		
Covid 2020 × Female × Other	-0.00		
	(0.04)		
Covid 2021 × Female × Agriculture, forestry and fishing	-0.03	6,020.64	1,238.60
	(0.08)	(4,052.91)	(1,938.26)
Covid 2021 × Female × Human health and social work activities	-0.09	-2,939.12	-2,568.37*
	(0.06)	(3,849.50)	(1,338.09)
Covid 2021 × Female × Wholesale and retail trade	-0.08**	-5,556.49*	-2,746.58***
	(0.04)	(2,885.71)	(1,041.80)
Covid 2021 × Female × Other	0.05	-5,335.08*	-619.45
	(0.04)	(3,029.94)	(1,132.21)
Individual FE	✓	✓	✓
County*Survey FE	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓
Observations	3,075	1,466	1,466
Pre-Covid mean, male	1.00	22,087.28	6,766.43
Covid 2021 mean, male	0.83	22,099.10	7,448.21
Pre-Covid mean, female	1.00	17,079.99	4,864.84
Covid 2021 mean, female	0.80	13,730.90	4,290.57

Notes: Columns (1), (2) and (3) present OLS regressions where the dependent variable are an indicator variable = 1 if the respondent reported owning a business, and monthly sales and profits winsorized at the 5% level on both tails reported in Kenyan Shillings, respectively. The sample is restricted to those respondents that reported owning a business in the baseline period. All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the 2021 post-Covid survey time dummies, female, and indicator variables categorizing the business sector they operated in at baseline. All regressions control for individual fixed effects and county-time trends. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2021 mean refer to the mean of males/females at the post-Covid 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C5: The Role of Chilcare Needs: Impact of Covid-19 on Business Outcomes

	Business Ownership			Pre-Covid Business Owners		New Business	
	All	Survival	Entry	Sales	Profits	Sales	Profits
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Covid 2020 × Female	0.06*	0.03	0.13*				
	(0.04)	(0.04)	(0.07)				
Covid 2020 × Childcare	-0.02	-0.01	-0.04				
	(0.08)	(0.10)	(0.09)				
Covid 2020 × Female × Childcare	-0.04***	-0.02	-0.07***				
	(0.01)	(0.02)	(0.02)				
Covid 2021 × Female	0.08*	0.17***	-0.03	539.05	-614.31	-4,390.52	-4,587.43***
	(0.05)	(0.05)	(0.08)	(3,635.43)	(1,445.28)	(3,701.61)	(1,590.36)
Covid 2021 × Childcare	0.06	0.08	0.00	5,007.48	691.00	1,087.31	-15.69
	(0.05)	(0.05)	(0.08)	(8,086.31)	(2,416.94)	(1,721.57)	(746.78)
Covid 2021 × Female × Childcare	-0.04**	-0.07***	0.00	-995.38	-210.06	175.11	858.50
	(0.02)	(0.02)	(0.03)	(1,329.15)	(560.02)	(1,287.58)	(527.66)
Individual FE	✓	✓	✓	✓	✓		
County*Survey FE	✓	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓		✓	✓		
Observations	5,145	3,075	2,070	1,466	1,466	384	384
Pre-Covid mean, male	0.62	1.00	0.00	22,087.28	6,766.43	.	.
Covid 2020 mean, male	0.79	0.89	0.62	.	.	.	.
Covid 2021 mean, male	0.75	0.83	0.61	22,099.10	7,448.21	24,108.86	9,200.05
Pre-Covid mean, female	0.58	1.00	0.00	17,079.99	4,864.84	.	.
Covid 2020 mean, female	0.73	0.87	0.54	.	.	.	.
Covid 2021 mean, female	0.70	0.80	0.56	13,730.90	4,290.57	18,487.84	5,980.67

Notes: Columns (1) to (3) present OLS regressions where the dependent variable is an indicator variable = 1 if the respondent reported owning a business. Column (2) restricts the sample to those respondents that reported owning at least one business in the baseline period. Column (3) restricts the sample to those respondents that reported not owning any business in the baseline period. Columns (4) and (5) present OLS regressions where the dependent variable are monthly sales and monthly profits, respectively, winsorized at the 5% level on both tails reported in Kenyan Shillings among respondents that reported owning one business in the baseline period. Columns (6) and (7) restrict the sample to those respondents that reported not owning any business in the baseline period but opened a business by the time of the 2021 follow-up survey. The regression results estimate equation (1) fully interacting with the number of hours respondent report spending in childcare. The table reports the coefficient of the interactions between the post-Covid surveys time dummies and the number of childcare hours, as well as their triple interaction with female. All regressions control for individual fixed effects, county- and business sector-time trends. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2020 mean and Covid 2021 mean refer to the mean of males/females at the post-Covid follow-up surveys in 2020 and 2021, respectively. Standard errors, clustered at the individual level, in parenthesessym* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C6: The Role of Post-Covid Business Changes: Impacts of Covid-19 on Business Outcomes

	Business Ownership			Sales			Profits		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Covid 2021 × Female	-0.01	-0.04*	-0.04**	-28.87	-3,227.04	-2,136.00	-546.13	-2,153.61**	-1,573.21*
	(0.02)	(0.02)	(0.02)	(2,326.85)	(2,592.21)	(2,240.11)	(860.63)	(961.35)	(887.95)
Covid 2021 × Female × Online/remote	-0.06*			-7,385.46*			-2,678.97*		
	(0.03)			(3,809.51)			(1,578.73)		
Covid 2021 × Female × Govt. help		0.05*			6.02			1,398.17	
		(0.03)			(3,859.59)			(1,536.52)	
Covid 2021 × Female × Formal/informal loan			-0.02			-5,551.76			-1,284.31
			(0.04)			(4,749.49)			(1,682.28)
Individual FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	2,696	2,696	2,696	1,318	1,318	1,318	1,318	1,318	1,318
Pre-Covid mean, male	0.68	0.68	0.68	22,992.39	22,992.39	22,992.39	6,891.50	6,891.50	6,891.50
Covid 2021 mean, male	0.92	0.92	0.92	25,203.32	25,203.32	25,203.32	8,494.45	8,494.45	8,494.45
Pre-Covid mean, female	0.67	0.67	0.67	17,524.19	17,524.19	17,524.19	4,983.27	4,983.27	4,983.27
Covid 2021 mean, female	0.89	0.89	0.89	14,951.42	14,951.42	14,951.42	4,671.95	4,671.95	4,671.95

Notes: Columns (1) to (3) present OLS regressions where the dependent variable is an indicator variable = 1 if the respondent reported owning a business. Columns (4) to (6) and (6) to (8) present OLS regressions where the dependent variable are monthly sales and monthly profits, respectively, winsorized at the 5% level on both tails reported in Kenyan Shillings among respondents that reported owning one business in the baseline period. The regression results estimate equation (1) fully interacting with indicator variables equal to one if the respondent adopted the business change specified in the variable list by the time of the 2020 or 2021 follow-up surveys. The table reports the coefficient of the interactions between the post-Covid surveys time dummies, the business change, and female. All regressions control for individual fixed effects, county- and business sector-time trends. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2021 mean refer to the mean of males/females at the 2021 post-Covid follow-up surveys. Standard errors, clustered at the individual level, in parentheses.* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C7: Impact of COVID-19 on Income Primary Activity

	Baseline # Work Activities ≤ 1		Baseline and Follow-up # Work Activities ≤ 1	
		Win 5%		Win 5%
	(1)	(2)	(3)	(4)
Covid 2021 × Female	-10142.31**	-1,736.85**	-5,017.36***	-2,512.75***
	(3,946.38)	(699.42)	(1,552.19)	(814.74)
Individual FE	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓
Observations	1,784	1,784	786	786
Pre-Covid mean, male	9,558.26	8,769.72	8,510.12	7,782.29
Covid 2021 mean, male	22,715.62	14,418.61	14,066.55	11,159.73
Pre-Covid mean, female	3,969.96	3,558.26	3,223.20	3,064.45
Covid 2021 mean, female	7,834.01	7,243.20	4,141.37	4,007.44

Notes: OLS regressions where the dependent variable is the respondent's income earned from their primary activity reported in Kenyan Shillings, including the monetary value of any compensation they received in kind. Columns (2) and (4) are winsorized at the 5% level on both tails. The sample is restricted to respondents that reported a maximum of one working activity at baseline. Columns (3) and (4) further restrict the sample to respondents who also report a maximum of one working activity in 2021. All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the 2021 post-Covid survey time dummies and female. All regressions control for individual fixed effects and county and business sector-time trends. Pre-Covid mean refers to the mean of males/females at baseline survey. Covid 2021 mean refer to the mean of males/females at the post-Covid 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C8: ANCOVA Grants and BDS Treatment Effects: Business Outcomes

	Business Ownership			Business Performance	
	All	Survival	Entry	Sales	Profits
	(1)	(2)	(3)	(4)	(5)
Grants	0.19***	0.11***	0.32***	6,117.27**	2,349.37**
	(0.04)	(0.04)	(0.07)	(2,526.84)	(993.57)
Grants × Female	0.03	0.02	0.02	-3,581.15	-1,618.05
	(0.05)	(0.06)	(0.09)	(2,968.21)	(1,187.69)
Grants and BDS	0.23***	0.15***	0.35***	4,405.96*	1,652.68*
	(0.03)	(0.04)	(0.06)	(2,258.23)	(895.43)
Grants and BDS × Female	0.03	-0.00	0.05	-338.52	-803.27
	(0.05)	(0.06)	(0.08)	(2,875.77)	(1,094.78)
County	✓	✓	✓	✓	✓
Baseline business sector	✓	✓		✓	✓
Observations	1,715	1,025	690	851	851
Grant effect for females	0.22***	0.14***	0.33***	2536.12*	731.32
	(0.03)	(0.04)	(0.06)	(1510.93)	(634.09)
Grant and BDS effect for females	0.26***	0.15***	0.40***	4067.45**	849.41
	(0.03)	(0.04)	(0.05)	(1789.17)	(645.80)
Control+BDS only mean, male	0.62	0.75	0.43	18888.05	6043.32
Control +BDS only mean, female	0.55	0.71	0.36	11690.11	3662.43
[Grant=Grant and BDS] male (p-value)	0.33	0.39	0.62	0.50	0.49
[Grant=Grant and BDS] female (p-value)	0.28	0.76	0.29	0.39	0.86

Notes: Columns (1) to (3) present OLS regressions where the dependent variable is an indicator variable = 1 if the respondent reported owning a business. Column (2) restricts the sample to those respondents that reported owning at least one business in the baseline period. Column (3) restricts the sample to those respondents that reported not owning any business in the baseline period. Columns (4) and (5) present OLS regressions where the dependent variable are monthly sales and monthly profits, respectively, winsorized at the 5% level on both tails reported in Kenyan Shillings among respondents that reported owning one business in the baseline period. All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey in an ANCOVA specification. The table reports the coefficient of the KYEOP indicators for treatment (Grants only and Grants+BDS), as well as their interaction with female. All regressions control for county- and business sector. Control+BDS only mean refers to the mean of males/females of the pure control or BDS only groups at the 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C9: Grants only, BDS only, and Grants and BDS Treatment Effects: Business Outcomes

	Business Ownership			Business Performance	
	All	Survival	Entry	Sales	Profits
	(1)	(2)	(3)	(4)	(5)
Covid 2021 × Grants	0.22***	0.13	0.33***	11,391.15**	6,080.38***
	(0.06)	(0.08)	(0.10)	(5,699.71)	(2,228.27)
Covid 2021 × Grants × Female	-0.02	-0.02	0.01	-4,337.80	-4,020.70
	(0.09)	(0.11)	(0.15)	(7,101.50)	(2,621.61)
Covid 2021 × BDS	0.03	0.02	0.02	3,909.89	4,060.81*
	(0.07)	(0.09)	(0.10)	(5,694.83)	(2,184.48)
Covid 2021 × BDS × Female	-0.06	-0.05	-0.01	-1,134.20	-2,636.37
	(0.09)	(0.11)	(0.15)	(7,181.62)	(2,594.11)
Covid 2021 × Grants and BDS	0.26***	0.17**	0.36***	11,785.53**	5,658.45**
	(0.06)	(0.08)	(0.10)	(5,586.19)	(2,207.09)
Covid 2021 × Grants and BDS × Female	-0.02	-0.04	0.04	-3,752.12	-3,641.67
	(0.09)	(0.11)	(0.15)	(7,152.04)	(2,619.36)
Individual FE	✓	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓		✓	✓
Observations	3,430	2,050	1,380	1,466	1,466
Grant effect for females	0.20***	0.11	0.34***	7053.35	2059.68
	(0.06)	(0.07)	(0.11)	(4376.52)	(1405.43)
BDS effect for females	-0.03	-0.03	0.01	2775.69	1424.44
	(0.06)	(0.08)	(0.11)	(4484.88)	(1426.04)
Grant and BDS effect for females	0.23***	0.12*	0.41***	8033.40*	2016.78
	(0.06)	(0.07)	(0.11)	(4617.82)	(1463.52)
Control mean, male	0.57	0.70	0.41	11175.00	4209.52
Control mean, female	0.59	0.73	0.37	9918.75	3061.61
[Grant=Grant and BDS] male (p-value)	0.33	0.39	0.61	0.90	0.73
[Grant=Grant and BDS] female (p-value)	0.28	0.76	0.29	0.71	0.96

Notes: Columns (1) to (3) present OLS regressions where the dependent variable is an indicator variable = 1 if the respondent reported owning a business. Column (2) restricts the sample to those respondents that reported owning at least one business in the baseline period. Column (3) restricts the sample to those respondents that reported not owning any business in the baseline period. Columns (4) and (5) present OLS regressions where the dependent variable are monthly sales and monthly profits, respectively, winsorized at the 5% level on both tails reported in Kenyan Shillings among respondents that reported owning one business in the baseline period. All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the post-Covid surveys time dummy and indicators for treatment (Grants only, BDS only, and Grants+BDS), as well as their triple interaction with female. All regressions control for individual fixed effects, county- and business sector-time trends. Control mean refers to the mean of males/females of the pure control group at the 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C10: ANCOVA Grants and BDS Treatment Effects: Income Variables

	Income Sources		Income Primary Activity				Spousal Income Gap	
					Including in kind			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Any	Number	Raw	Win 5%	Raw	Win 5%	Raw	Win 5%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Grants	-0.00	0.06	864.31	1,354.55*	1,162.32	1,450.87*	-1,019.97	-989.79
	(0.01)	(0.06)	(4,711.73)	(791.62)	(4,706.34)	(791.69)	(3,909.22)	(882.33)
Grants × Female	0.13***	0.26***	1,286.11	636.36	1,039.46	592.93	-1,986.86	-1,032.83
	(0.03)	(0.08)	(4,512.49)	(996.14)	(4,510.29)	(998.85)	(3,887.10)	(1,317.11)
Grants and BDS	0.01	0.19***	-1,541.49	1,266.83*	-1,428.99	1,350.71*	2,450.33	-1,000.02
	(0.01)	(0.05)	(3,757.70)	(729.34)	(3,745.95)	(727.28)	(2,173.37)	(734.25)
Grants and BDS × Female	0.11***	0.14**	5,793.12	1,588.09*	5,790.93	1,543.50	-5,221.24**	-1,032.12
	(0.03)	(0.07)	(3,883.55)	(958.05)	(3,876.46)	(961.66)	(2,627.57)	(1,226.91)
County	✓	✓	✓	✓	✓	✓	✓	✓
Baseline business sector	✓	✓	✓	✓	✓	✓	✓	✓
Observations	1,715	1,715	1,681	1,681	1,682	1,682	1,378	1,378
Grant effect for females	0.13***	0.32***	2150.41***	1990.90***	2201.78***	2043.79***	-3006.83**	-2022.62**
	(0.03)	(0.05)	(823.31)	(609.36)	(825.02)	(613.70)	(1315.57)	(977.29)
Grant and BDS effect for females	0.12***	0.34***	4251.62***	2854.91***	4361.93***	2894.21***	-2770.91*	-2032.14**
	(0.03)	(0.05)	(950.68)	(630.15)	(970.31)	(636.89)	(1490.86)	(991.21)
Control+BDS only mean, male	.	.	.	.	.	.	.	.
Control +BDS only mean, female	.	.	.	.	.	.	.	.
[Grant=Grant and BDS] male (p-value)	0.35	0.04	0.52	0.92	0.49	0.91	0.34	0.99
[Grant=Grant and BDS] female (p-value)	0.70	0.70	0.06	0.23	0.05	0.24	0.88	0.99

Notes: Columns (1) presents OLS regressions where the dependent variable are an indicator variable equal to one if the respondent reports having any source of income. Column (2) dependent variable are the number of sources of income. Columns (3) to (6) present OLS regressions where the dependent variable is the respondent's income earned from their primary activity reported in Kenyan Shillings. Columns (5) and (6) include the monetary value of any compensation they received in kind. Columns (4) and (6) are winsorized at the 5% level on both tails. Columns (7) and (8) dependent variable is the spousal income gap subtracting from the respondent's estimate of their spouse's monthly income their income as constructed in column (3). All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey in an ANCOVA specification. The table reports the coefficient of the indicators for treatment (Grants only and Grants+BDS), as well as their interaction with female. All regressions control for county- and business sector. Control+BDS only mean refers to the mean of males/females of the pure control or BDS only groups at the 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C11: Grants only, BDS only, and Grants and BDS Treatment Effects: Income Variables

	Income Sources		Income Primary Activity				Spousal Income Gap	
					Including in kind			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Any	Number	Raw	Win 5%	Raw	Win 5%	Raw	Win 5%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Covid 2021 × Grants	0.02	0.17	4,926.59	1,611.17	4,842.30	1,551.16	-3,075.73	-535.40
	(0.03)	(0.11)	(3,511.40)	(1,556.75)	(3,533.15)	(1,556.64)	(4,010.33)	(1,841.42)
Covid 2021 × Grants × Female	0.12*	0.27*	-715.71	2,813.89	-589.80	2,869.35	693.64	-3,648.81
	(0.07)	(0.14)	(3,917.50)	(2,078.74)	(3,955.64)	(2,090.35)	(5,465.65)	(2,902.09)
Covid 2021 × BDS	0.02	0.12	4,044.79	655.26	3,702.34	510.70	-998.03	399.12
	(0.03)	(0.10)	(4,526.27)	(1,503.24)	(4,504.77)	(1,500.70)	(3,779.65)	(1,782.12)
Covid 2021 × BDS × Female	0.02	0.02	-786.23	2,122.72	-489.94	2,154.29	108.38	-3,250.97
	(0.07)	(0.13)	(4,923.78)	(2,016.07)	(4,912.85)	(2,028.69)	(5,024.19)	(2,806.41)
Covid 2021 × Grants and BDS	0.03	0.30***	4,132.29	2,363.36	3,848.71	2,274.98	-17.82	-407.64
	(0.03)	(0.10)	(2,761.69)	(1,507.11)	(2,781.76)	(1,507.89)	(2,663.23)	(1,773.53)
Covid 2021 × Grants and BDS × Female	0.11	0.18	2,494.23	2,860.75	2,826.76	2,928.43	-3,205.95	-4,234.60
	(0.07)	(0.14)	(3,301.88)	(2,042.86)	(3,344.09)	(2,056.48)	(4,118.98)	(2,852.15)
Individual FE	✓	✓	✓	✓	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓	✓	✓	✓	✓
Observations	3,430	3,430	3,300	3,300	3,304	3,304	2,608	2,608
Grant effect for females	0.14**	0.44***	4210.88**	4425.07***	4252.50**	4420.51***	-2382.09	-4184.21*
	(0.07)	(0.10)	(1964.12)	(1384.86)	(2000.22)	(1403.55)	(3599.13)	(2224.20)
BDS effect for females	0.03	0.14	3258.56*	2777.98**	3212.40*	2664.99*	-889.65	-2851.85
	(0.07)	(0.09)	(1706.12)	(1360.54)	(1738.30)	(1382.38)	(3166.83)	(2150.92)
Grant and BDS effect for females	0.15**	0.48***	6626.52***	5224.11***	6675.47***	5203.41***	-3223.78	-4642.24**
	(0.07)	(0.10)	(1854.50)	(1395.95)	(1897.25)	(1414.48)	(3252.93)	(2228.08)
Control mean, male	0.98	1.38	12379.66	11108.47	12747.63	11256.10	-10237.25	-8479.07
Control mean, female	0.75	0.82	5012.70	5012.70	5315.08	5315.08	6546.25	6261.25
[Grant=Grant and BDS] male (p-value)	0.51	0.11	0.83	0.46	0.79	0.47	0.42	0.92
[Grant=Grant and BDS] female (p-value)	0.90	0.59	0.13	0.33	0.14	0.34	0.76	0.74

Notes: Columns (1) presents OLS regressions where the dependent variable are an indicator variable equal to one if the respondent reports having any source of income. Column (2) dependent variable are the number of sources of income. Columns (3) to (6) present OLS regressions where the dependent variable is the respondent's income earned from their primary activity reported in Kenyan Shillings. Columns (5) and (6) include the monetary value of any compensation they received in kind. Columns (4) and (6) are winsorized at the 5% level on both tails. Columns (7) and (8) dependent variable is the spousal income gap subtracting from the respondent's estimate of their spouse's monthly income their income as constructed in column (3). All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the post-Covid surveys time dummy and indicators for treatment (Grants only, BDS only, and Grants+BDS), as well as their triple interaction with female. All regressions control for individual fixed effects, county- and business sector-time trends. Control mean refers to the mean of males/females of the pure control group at the 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C12: Grants only, BDS only, and Grants and BDS Treatment Effects: Time Use

	(1) Childcare	(2) Work/study	(3) Domestic work	(4) Leisure	(5) Sleep	(6) Eating/self-care
Covid 2021 × Grants	-0.08	-0.23	0.17	0.04	0.07	-0.11
	(0.27)	(0.47)	(0.19)	(0.23)	(0.24)	(0.15)
Covid 2021 × Grants × Female	-0.09	1.58**	-0.81***	-0.30	0.03	0.01
	(0.40)	(0.78)	(0.31)	(0.33)	(0.34)	(0.22)
Covid 2021 × BDS	-0.03	-0.08	0.16	-0.10	-0.07	0.00
	(0.27)	(0.46)	(0.19)	(0.23)	(0.23)	(0.14)
Covid 2021 × BDS × Female	-0.12	0.97	-0.50*	-0.15	0.13	0.05
	(0.39)	(0.75)	(0.29)	(0.32)	(0.33)	(0.21)
Covid 2021 × Grants and BDS	-0.06	-0.41	0.36*	-0.02	0.04	-0.04
	(0.26)	(0.46)	(0.19)	(0.23)	(0.23)	(0.14)
Covid 2021 × Grants and BDS × Female	-0.44	2.25***	-0.99***	-0.46	0.03	-0.03
	(0.39)	(0.76)	(0.30)	(0.33)	(0.34)	(0.21)
Individual FE	✓	✓	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓	✓	✓	✓	✓
Observations	3,430	3,430	3,430	3,430	3,430	3,430
Grant effect for females	-0.17	1.35**	-0.64***	-0.26	0.10	-0.09
	(0.30)	(0.62)	(0.24)	(0.24)	(0.25)	(0.16)
BDS effect for females	-0.16	0.89	-0.34	-0.25	0.06	0.05
	(0.29)	(0.60)	(0.23)	(0.23)	(0.24)	(0.15)
Grant and BDS effect for females	-0.50*	1.84***	-0.64***	-0.47**	0.07	-0.07
	(0.29)	(0.61)	(0.23)	(0.24)	(0.25)	(0.16)
Control mean, male	2.31	9.52	1.17	1.89	7.54	1.33
Control mean, female	3.79	5.60	2.79	2.24	7.71	1.60
[Grant=Grant and BDS] male (p-value)	0.92	0.54	0.14	0.69	0.86	0.46
[Grant=Grant and BDS] female (p-value)	0.11	0.19	0.98	0.12	0.84	0.82

Notes: OLS regressions where the dependent variables are the number of hours the respondent reports spending on a typical working day in each activity. All the regressions include observations from the two post-Covid follow-up surveys. The baseline values were collected during the 2020 post-Covid follow-up survey retroactively. The table reports the coefficient of the interactions between the post-Covid surveys time dummy and indicators for treatment (Grants only, BDS only, and Grants+BDS), as well as their triple interaction with female. All regressions control for individual fixed effects, county- and business sector-time trends. Control mean refers to the mean of males/females of the pure control group at the 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C13: Grants only, BDS only, and Grants and BDS Treatment Effects: Well-being

	10-step ladder		Food security	Satisfaction work/life	Vignette Index
	(1)	(2)	(3)	(4)	(5)
	Perception	Expectation			
Grants	1.08***	1.00***	-0.41**	0.32*	-0.18
	(0.22)	(0.26)	(0.16)	(0.18)	(0.16)
Grants × Female	-0.97***	-0.53	-0.04	-0.31	0.07
	(0.29)	(0.34)	(0.21)	(0.23)	(0.21)
BDS	0.55***	0.75***	-0.18	0.02	-0.00
	(0.21)	(0.25)	(0.15)	(0.17)	(0.16)
BDS × Female	-0.68**	-0.60*	-0.06	-0.10	-0.05
	(0.28)	(0.33)	(0.20)	(0.23)	(0.20)
Grants and BDS	1.02***	1.26***	-0.48***	0.32*	-0.19
	(0.21)	(0.25)	(0.15)	(0.17)	(0.16)
Grants and BDS × Female	-0.83***	-1.00***	0.08	-0.19	0.08
	(0.29)	(0.33)	(0.20)	(0.23)	(0.21)
Female	0.66***	0.68**	0.09	0.13	0.42**
	(0.25)	(0.30)	(0.18)	(0.21)	(0.19)
County FE	✓	✓	✓	✓	✓
Baseline business sector	✓	✓	✓	✓	✓
Observations	1,715	1,715	1,715	1,715	1,611
Grant effect for females	0.12	0.47**	-0.45***	0.01	-0.12
	(0.19)	(0.22)	(0.13)	(0.15)	(0.13)
BDS effect for females	-0.13	0.14	-0.25*	-0.07	-0.05
	(0.19)	(0.21)	(0.13)	(0.15)	(0.13)
Grant and BDS effect for females	0.19	0.26	-0.40***	0.13	-0.12
	(0.19)	(0.21)	(0.13)	(0.15)	(0.13)

Notes: Columns (1) to (4) are OLS regressions where the dependent variables are the answers to the different measures of individual subjective well-being. Column (5) dependent variable is the standardized average index of the three intra-household vignettes. All the regressions include observations from the 2021 post-Covid follow-up survey. The table reports the coefficient of female and interactions between female and the indicators for treatment (Grants only, BDS only, and Grants+BDS). All regressions control for county and business sector fixed effects. Control mean refers to the mean of males/females of the pure control group at the 2021 follow-up survey.Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C14: Grants and BDS Treatment Effects: Business Outcomes. Heterogeneity by Spouse's Business Ownership

	Business Ownership			Business Performance	
	All	Survival	Entry	Sales	Profits
	(1)	(2)	(3)	(4)	(5)
Covid 2021 × Grant	0.24***	0.14***	0.38***	10,166.99***	2,889.68***
	(0.03)	(0.04)	(0.06)	(2,807.61)	(1,061.61)
Covid 2021 × Grant × Female	0.00	0.02	-0.05	-4,768.02	-2,136.15
	(0.05)	(0.06)	(0.08)	(3,779.43)	(1,424.23)
Covid 2021 × Grant × Spouse had business at baseline	-0.11	-0.02	-0.18	-9,059.73	-2,422.58
	(0.07)	(0.09)	(0.14)	(6,100.62)	(2,364.76)
Covid 2021 × Grant × Spouse had business at baseline × Female	0.12	-0.04	0.33*	8,618.08	2,737.70
	(0.10)	(0.11)	(0.17)	(7,475.64)	(2,866.92)
Individual FE	✓	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓		✓	✓
Observations	3,430	2,050	1,380	1,466	1,466
Grant effect for females	0.24***	0.16***	0.33***	5398.97**	753.53
	(0.03)	(0.04)	(0.06)	(2532.72)	(959.62)
Grant effect for females with entrepreneur spouse	0.25***	0.10*	0.47***	4957.31	1068.65
	(0.05)	(0.06)	(0.08)	(3598.15)	(1337.82)
Control+BDS only mean, male	0.62	0.75	0.43	18114.76	5715.89
Control+BDS only mean, female	0.55	0.71	0.36	11561.71	3567.73

Notes: Columns (1) to (3) present OLS regressions where the dependent variable is an indicator variable = 1 if the respondent reported owning a business. Column (2) restricts the sample to those respondents that reported owning at least one business in the baseline period. Column (3) restricts the sample to those respondents that reported not owning any business in the baseline period. Columns (4) and (5) present OLS regressions where the dependent variable are monthly sales and monthly profits, respectively, winsorized at the 5% level on both tails reported in Kenyan Shillings among respondents that reported owning one business in the baseline period. All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the 2021 post-Covid survey time dummy, grant indicators for treatment, female, and an indicator variable equal to one if the respondent's partner owned a business at baseline. All regressions control for individual fixed effects, county- and business sector-time trends. Control+BDS only mean refers to the mean of males/females of the pure control or BDS only groups at the 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C15: Grant and BDS Treatment Effects: Business Outcomes. Heterogeneity by Bank Account at Baseline

	Business Ownership			Business Performance	
	All	Survival	Entry	Sales	Profits
	(1)	(2)	(3)	(4)	(5)
Covid 2021 × Grant	0.26***	0.15***	0.39***	16,142.20***	4,699.43***
	(0.05)	(0.06)	(0.08)	(4,255.72)	(1,607.62)
Covid 2021 × Grant × Female	-0.05	-0.06	-0.03	-13471.59***	-4,379.68**
	(0.06)	(0.08)	(0.10)	(5,138.16)	(1,935.04)
Covid 2021 × Grant × Bank savings account at baseline	-0.08	-0.03	-0.11	-12411.54**	-3,801.35*
	(0.06)	(0.07)	(0.11)	(5,286.68)	(2,000.80)
Covid 2021 × Grant × Bank savings account at baseline × Female	0.14*	0.14	0.14	18,170.39***	5,000.61**
	(0.08)	(0.10)	(0.15)	(6,685.12)	(2,532.53)
Individual FE	✓	✓	✓	✓	✓
Survey FE	✓	✓	✓	✓	✓
County*Survey FE	✓	✓	✓	✓	✓
Baseline business sector*Survey FE	✓	✓		✓	✓
Observations	3,430	2,050	1,380	1,466	1,466
Grant effect for females	0.21***	0.09*	0.36***	2670.61	319.76
	(0.04)	(0.05)	(0.06)	(2855.67)	(1092.64)
Grant effect for females with bank savings account at baseline	0.27***	0.20***	0.39***	8429.46***	1519.02
	(0.04)	(0.05)	(0.07)	(2953.33)	(1083.90)
Control+BDS only mean, male	0.62	0.75	0.43	18114.76	5715.89
Control+BDS only mean, female	0.55	0.71	0.36	11561.71	3567.73

Notes: Columns (1) to (3) present OLS regressions where the dependent variable is an indicator variable = 1 if the respondent reported owning a business. Column (2) restricts the sample to those respondents that reported owning at least one business in the baseline period. Column (3) restricts the sample to those respondents that reported not owning any business in the baseline period. Columns (4) and (5) present OLS regressions where the dependent variable are monthly sales and monthly profits, respectively, winsorized at the 5% level on both tails reported in Kenyan Shillings among respondents that reported owning one business in the baseline period. All the regressions include observations from the baseline and the 2021 post-Covid follow-up survey. The table reports the coefficient of the interactions between the 2021 post-Covid survey time dummy, grant indicators for treatment, female, and an indicator variable equal to one if the respondent had a personal savings account at baseline. All regressions control for individual fixed effects, county- and business sector-time trends. Control+BDS only mean refers to the mean of males/females of the pure control or BDS only groups at the 2021 follow-up survey. Standard errors, clustered at the individual level, in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.