

GiveDirectly Uganda Endline Report

Unconditional cash transfers in Kiryandongo refugee settlement, Uganda

IDinsight

Informing specific decisions with rigorous evidence— Designing and analyzing decision focused evaluations

August 2022

Acknowledgements

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About IDinsight

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About GiveDirectly

GiveDirectly is a non-profit that delivers unconditional cash transfers to households living in extreme poverty. This approach stems from rigorous experimental evidence of impact and core values of efficiency, transparency, and respect. GiveDirectly has been operational in Uganda since 2013.

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Executive Summary

Many studies have shown that large, unconditional cash transfers (UCTs) reduce poverty and improve quality of life, at least in the short run. But will UCTs be as successful in refugee communities, where residents face larger barriers to income-generating opportunities? And will they have similar effects in the context of the dual shocks of COVID-19 and aid cuts?

The non-profit organization GiveDirectly is providing a 1,000 USD UCT to ~10,000 refugee households and ~5,000 host community households in Kiryandongo District, Uganda over three years. As the evaluation partner, IDinsight conducted an impact evaluation to examine the impact of cash transfers on households and to inform future decision-making about cash programs by donors and implementing organizations.

The impact evaluation included a randomized controlled trial and a longitudinal, qualitative study. Through a public lottery, IDinsight and GiveDirectly randomly assigned ~9,000 refugee households to one of 24 cohorts to receive the cash transfers sequentially. For our study, cohorts 1 and 2 are the "treatment" group, and a random sample of cohorts 17 to 20 is the "control" group. We measure outcomes ~19 months after most treatment households received the cash transfer.

The impact evaluation shows that – amidst the COVID-19 pandemic and cuts to the monthly World Food Programme cash and food aid – refugees in Kiryandongo effectively used the cash transfer to improve their economic and psychological well-being. By our endline survey, treatment households owned more assets, consumed more goods and services, and earned more business income compared to the control group. The observed effects are in line with the effect sizes observed in other large UCT studies conducted outside of refugee settlements.

The key findings include:

- Refugees in Kiryandongo used the 1,000 USD transfer to improve their houses, purchase land, and start businesses. Treatment households had 11% (32.3 USD above the control mean of 296.9 USD) higher monthly consumption at endline.
- Transfer recipients were 8.6 percentage points more likely to own household businesses, and total monthly business revenue was 64% higher compared to control households (14.3 USD above the control mean of 22.3 USD). Recipient households did not have higher agricultural production or revenue compared to non-recipients.
- Households used the transfer to invest in land and home improvements. At endline, recipient households had assets worth 60% (1,386 USD above the control mean of 2,286 USD) more than non-recipients.
- While most recipients planned to spend the transfer on education, the long, pandemic-induced school closures in Uganda led to no significant changes on education spending.
- The GiveDirectly transfer aided refugees in improving their psychological well-being: our composite psychological well-being index was 0.28 standard deviations higher for recipients compared to non-recipients. Despite the increase, both the treatment and control groups show signs of depression and moderate stress.
- We find no evidence that the transfer affected employment, migration, or household composition.

- We find no significant differences in transfer effects between men and women and no effect on female empowerment.
- Most respondents felt generally safe in their communities. However, theft was a commonly
 mentioned issue and concern, despite improvements over time. There is no indication that the
 GiveDirectly transfer has affected safety and security positively or negatively, though some
 respondents felt more worried about theft when receiving the transfer.
- Our findings on social cohesion are mixed, with many respondents mentioning positive relations
 and improvements, as well as tensions over resources such as water and land and violent
 conflicts triggered by inter-tribal romantic relationships. While the GiveDirectly transfer did not
 affect most dimensions of social cohesion (positively or negatively), it may have contributed to
 conflicts within families as well as exacerbated existing prejudices and tensions around price
 discrimination towards refugees and refugees getting "free money."

1. Background

1.1 Protracted Displacement in Uganda

UNICEF (2018) estimates that Uganda hosts the largest refugee population in Africa and the third largest in the world, with over 1.5 million refugees and asylum-seekers. Many refugees have been living in Uganda long-term, given the protracted nature of conflicts in neighboring countries including South Sudan and the Democratic Republic of Congo (DRC).

Refugees in Uganda benefit from progressive policies. Uganda permits refugees to move freely outside the settlements, work, start businesses, engage in farming activities on rented land, and access public services, including education and health care. However, most refugees live in so-called "settlements" with limited economic opportunities and continue to depend on food or cash aid from the World Food Programme (WFP). As of March 2022, 97.6% of households in Kiryandongo settlement receive assistance and only 16.1% have an occupation (UNHCR, 2022).

1.2 Study Context

The non-profit organization GiveDirectly sought to understand if a large, one-time unconditional cash transfer (UCT) of 1,000 USD could support refugees in protracted displacement to improve their self-reliance and overall well-being. After a successful pilot in Kyaka II refugee settlement, GiveDirectly decided to implement and rigorously evaluate its intervention "at scale" by saturating an entire settlement. GiveDirectly chose the Kiryandongo refugee settlement for its proximity to markets and being a closed settlement; it received no new refugees from 2016 until the 2021 flooding in Uganda, which brought new internally displaced arrivals to Kiryandongo (UNICEF, 2021). The Kiryandongo settlement located in Uganda's Western Region - has fertile land and is situated along the main Kampala-Gulu highway and the district's commercial center, Bweyale. This location facilitates market activity and income generation for both refugees and host community members.²

Among Uganda's eleven major settlements, Kiryandongo is one of the older and smaller settlements. It was established in the 1970s on cleared ranch land and currently hosts over 76,000 mostly South Sudanese refugees (99%) (UNHCR, 2022). The Office of the Prime Minister (OPM) and the United Nations High Commissioner for Refugees (UNHCR) co-manage the settlement. Upon arrival, OPM and UNHCR provided refugees with two acres of land³ and material, such as a tarp, to build a shelter. Most of its current residents arrived in 2014, shortly after South Sudanese independence and the ensuing civil war. They are ethnically Nuer, Dinka, and Acholi/Luo, though the settlement hosts over ten ethnicities. Many households live in makeshift or traditional huts; some have built semi-permanent houses using half-burnt bricks and iron sheets. Permanent houses, using fully burned bricks and cement, are officially forbidden.

¹ GiveDirectly. 2022. From Subsistence to Rebuilding: An internal evaluation of large cash transfers to refugees and host communities in Uganda

² The word "host community" and "Ugandans" have been used interchangeably throughout the report referring to Ugandan nationals, both the original residents of the area and internally displaced persons

³ Åt the time of the study, true plot sizes within Kiryandongo settlement varied. People had to subdivide plots, or were able to obtain additional land through informal trading.

1.3 Existing Evidence

Large UCTs have shown to increase short-term well-being outside of refugee contexts through increases in asset value, earnings, food expenditure, food security, and psychological well-being (Haushofer & Shapiro, 2016; McIntosh & Zeitlin, 2018; Egger et al., 2021).

However, rigorous research is limited on the effects of large UCTs in refugee contexts, including effects on both refugees and host community members. For example, studies have found that small cash transfers, compared to food vouchers, are more cost-effective and lead to equal or greater effects on food security in refugee communities (BCG, 2017; Aker, 2013; Gilligan et al., 2013). A recent study of Syrian refugees in Lebanon showed no sustained effects on consumption, child well-being, food security, and savings six months after the program ended (Altındağ & O'Connell, 2021).

Additionally, there is limited research on how large cash transfers can perform in the context of an external shock, such as the COVID-19 pandemic. A recent World Bank report shows that cash transfers help mitigate the COVID-19 pandemic's effects but are likely not enough to counteract them (Gentilini, 2022). Other emerging evidence suggests that cash transfers during the pandemic can sustain household welfare and healthcare use (Londoño-Vélez & Querubín, 2022; Tossou, 2021; Varshney et al., 2021). We do not know of any rigorous studies that test the effects of cash transfers during COVID-19 in refugee communities.

This study has two unique features: GiveDirectly is providing cash transfers in a protracted (rather than an immediate emergency) context, and the transfers are large and one-off (rather than small and frequent). Additionally, Uganda's large refugee population and progressive policies provide a unique opportunity to test the impact of large, unconditional cash transfers in an environment where refugees have relative freedom to invest.

Overall, the evidence on cash transfers in humanitarian settings suggests positive effects, at least in the short term. However, this study seeks to address an evidence gap in the understanding of the effects of large-sized cash transfers in contexts of protracted displacement.

1.4 COVID-19 and Aid Cuts

The COVID-19 pandemic and global aid shortfalls have further perpetuated economic disruption leaving the livelihoods of many vulnerable households, including refugees in protracted displacement, at risk. On March 30, 2020, Uganda entered a nationwide lockdown to prevent the spread of COVID-19, restricting almost all movement and commerce in the country and across international borders. In June, the Government of Uganda (GoU), UNHCR, and some NGOs started issuing free masks and small bottles of sanitizers to people in Kiryandongo settlement. Non-essential businesses started reopening in October 2020 with curfew restrictions, and schools reopened in January 2022.

Each registered household in the settlement receives food or cash rations (their choice) from WFP. The COVID-19 pandemic worsened budget constraints that forced WFP to trim the rations twice. In April 2020, they reduced the amount by ~30%, from 31,000 UGX (8.6 USD⁴) per household member to 21,500 UGX (5.9 USD). They reduced it again in February 2021 to 19,000 UGX (5.3 USD), or ~60% of the original value. WFP also reduced distribution frequency from monthly to bi-monthly.

⁴ 1 USD nominal = 3,600 UGX.

1.5 The Intervention

GiveDirectly is providing its UCT via mobile money to all households registered in Kiryandongo refugee settlement (~10,000) plus ~5,000 nearby Ugandan ("host community") households. As per its most-recent operating model, GiveDirectly aimed to saturate the settlement with transfers, meaning that each household would receive a transfer. GiveDirectly saturates a setting when there is no clear reason to ration. Transfers to Ugandan households accord with the UN's and GoU's Refugee and Population Empowerment (ReHoPE) framework, requiring that in allocating aid for refugees, 70% goes to refugees and 30% to host communities. GiveDirectly budgeted for 83% of the project funding to go directly to beneficiaries, with the rest going to planning, management, and operations. However, the project is still ongoing and final operational data are not yet available.

GiveDirectly chose to make the transfers using mobile money based on prior experience and recipient feedback; they assessed the mobile infrastructure available in Kiryandongo as adequate. Mobile money is more secure than cash for distribution and provides recipients with privacy and security. Customers can withdraw their transfers from mobile money agents or ATMs and make direct mobile money payments.

GiveDirectly planned to deliver transfers to UNHCR-registered household heads. In the Kiryandongo settlement and in our sample, about three-quarters of registered household heads are female.

1.5.1 Transfer Amount

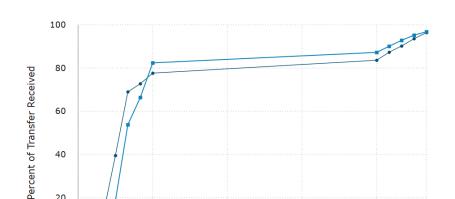
GiveDirectly is providing a ~3.6 million UGX (1,000 USD) UCT to each selected household. This amount represents three months of average baseline household consumption and is equivalent to about nineteen months of WFP food or cash aid to households in 2020.⁵ While the 1,000 USD transfer is one-off (not recurring), GiveDirectly disbursed it in three installments — a smaller installment of 500,000 UGX (139 USD) and two larger installments of 1.63 million UGX (453 USD) each. These amounts cover mobile-agent withdrawal fees. Recipients could opt to receive a basic mobile phone from GiveDirectly, in which case GiveDirectly would deduct 68,000 UGX (18.9 USD) from the final installment to cover the cost. 85% of treated households chose a phone. GiveDirectly planned to disburse the three installments a month apart from one another, though the gap was sometimes wider due to GiveDirectly's suspension in Uganda⁶ or other operational challenges (Figure 4).⁷

Transfers to our treatment group began in February 2020, and the vast majority received all of their transfer by July 2020, with stragglers receiving their transfers as late as May 2022. GiveDirectly and IDinsight randomized recipients into 24 cohorts to receive the transfer sequentially (more information in section 2.2). We summarize the transfer timing by cohort for our endline sample in Figure 1 below.

 $^{^{\}scriptsize 5}$ This assumes an average household size of nine members based on our baseline data.

⁶ Uganda's NGO Bureau suspended GiveDirectly's operations in Uganda from September 2020 to November 2021 due to a review of the organization's activities in the country.

⁷ E.g., the temporary pausing of in-person and consequent transition to remote enrollment due to the COVID-19 pandemic and lockdown.



Jan 2021

Figure 1: Timing of Cash Transfer Delivery per Cohort

July 2020

20

0

Jan 2020

Cohort 1 received transfers earlier on average, starting in February 2020; cohort 2 households started receiving their first installment in March 2020. By the time they completed their endline survey, ~85% of the endline sample had received all three installments, with an average of 18.6 months between the third disbursement and endline (see Figure 2).8 The whole treatment sample received, on average, 910.5 USD.

Cohort 1 Cohort 2

Jan 2022

May 2022

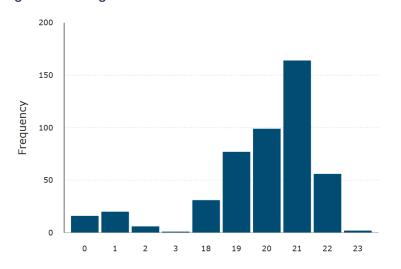


Figure 2: Average Number of Months Between Third Transfer Installment and Endline Survey

Although we had planned for all treatment households to receive their cash shortly after baseline, this plan was disrupted by GiveDirectly's suspension, which prevented them from making transfers between September 2020 and November 2021. Some treatment households had not received all of their transfers before July 2020 and therefore received transfers in early 2022. In our treatment group, 74 out of 556 households (13%) received at least one transfer in 2022. Transfers in 2022 constitute around 7.3% of the total transfer amount in our population.

⁸ The remaining 15% of the endline sample was split equally (5% each) between only receiving 0, 1, or 2 transfers.

1.5.2 Other Intervention Activities

In addition to the cash distribution, GiveDirectly held community sensitization meetings, provided nudges for transfer use, and provided basic financial and digital literacy training.

Before implementation, GiveDirectly carefully introduced itself and its intervention during community sensitization meetings ("barazas"). GiveDirectly staff held at least one baraza in each settlement administrative cluster to explain the transfer and how the rollout would work. They further shared security advice to prevent fraud or theft and warned against rumors. While GiveDirectly does not impose conditions on how households can use their transfer, they nudge recipients to invest in farming activities, buy livestock, build houses, enroll children in school, buy clothes, start small businesses, buy food, and seek medication, among other uses (Figure 17 in the Appendix). To enroll a household, GiveDirectly staff register each household with a mobile telecommunication company and provide them with a free SIM card. GiveDirectly staff also provide basic digital and financial literacy training, covering phone use and safe-keeping for SIM cards and personal details. During later audit visits, GiveDirectly staff verified details collected during registration and reiterated digital literacy and safety points. GiveDirectly audited all households until April 2022, 20% until July 2022, and 10% thereafter.

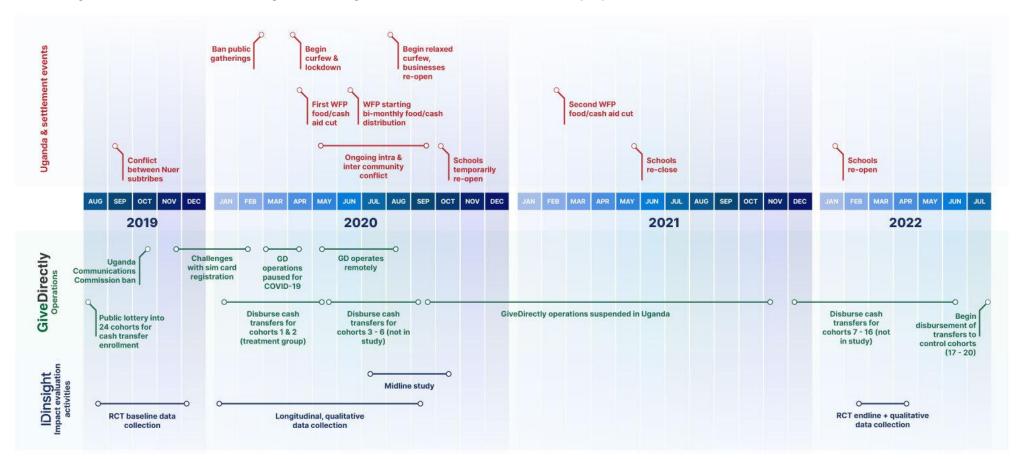
After each installment, GiveDirectly calls customers to ensure they got the money and everything is in order. They address household conflicts or possible fraud, if applicable. In case of conflicts, GiveDirectly pauses the transfer until they have investigated. The investigation may lead GiveDirectly to take mitigative action, like splitting the transfer or stopping it completely in extreme cases.

GiveDirectly runs a toll-free hotline in several languages to address any questions or concerns of recipients. During the COVID-19 pandemic, GiveDirectly shared information about the virus and provided referrals to other organizations or service providers if requested by its customers.

Figure 3: The GiveDirectly Process



Figure 4: Timeline of Events in Uganda, IDinsight Data Collection, and GiveDirectly Operations



2. Study Design

2.1 Design Overview

IDinsight conducted a rigorous, mixed-methods evaluation of GiveDirectly's intervention to examine the impact of the UCT on refugee and host households and inform future decision-making about cash programs by donors and implementing organizations. The impact evaluation combines a randomized controlled trial (RCT) and a longitudinal, qualitative study.

The research questions are:

- 1. What is the impact of large, unconditional cash transfers on refugee households for outcomes such as income, assets, consumption, enterprise, food security, and psychological well-being?
- 2. What do changes caused by the cash transfers mean for the lives of refugee households, and how did those changes come about?
- 3. What is the effect of cash transfers on host communities and their relationship with the refugee communities?

The mixed-methods design allows IDinsight to develop a comprehensive picture of the effects of GiveDirectly's UCT program on the lives of refugees and Ugandans. We can use the qualitative findings to further understand and contextualize the findings from the RCT and detect transfer effects that are harder to measure quantitatively.

2.2 Randomized Controlled Trial

2.2.1 Overview

IDinsight conducted a household-level, phased-in RCT to measure the causal impact of GiveDirectly's UCT program. The level of treatment and unit of analysis is at the household level, though some indicators (such as those focused on women and children) are measured at a sub-household level. Due to logistical constraints and inflation risks, GiveDirectly decided to roll out the program over multiple years, enrolling households and disbursing transfers sequentially. This roll out allowed for a phased-in study design, where households enrolled early formed the "treatment" group and households enrolled later formed the "control" group. IDinsight has pre-registered this study with the American Economic Association's registry for randomized controlled trials (RCT ID: AEARCTR-0006271). Further details on the study design, outcome specification, and the analytical model can be found in the Pre-Analysis Plan (PAP).⁹

⁹ https://www.socialscienceregistry.org/trials/6271

2.2.2 Outcomes

The RCT measured the following outcomes:10

- Household consumption: This indicator measures the total monthly value of household consumption and spending, including food consumption, consumption of temptation goods, and spending on non-food items.
- Household assets (including savings and loans): The assets indicator estimates the total current market value of common moveable and unmoveable household assets (including livestock), savings, and the net balance of currently outstanding loans given and taken.
- Agricultural and non-agricultural business revenue: This indicator measures the total monthly
 revenue from all formal and informal enterprises fully or partially owned by any household
 member including agricultural (based on crops sold) and household (excluding sale of own
 crops) business revenue.
- Psychological well-being: This individual-level outcome is based on a composite index of four well-being measures: the Center for Epidemiologic Studies Depression Scale (CES-D scale), Cohen's stress scale, World Value Survey happiness and life satisfaction sections, and a custom-worries questionnaire.
- **Food security**: The food security index measures the number of days in the last seven days that adults and children: skipped or cut meals; went entire days without food; and went to bed hungry. It also includes the number of meals eaten yesterday that contained protein.
- Female empowerment: This index comprises a time-use measure that captures the proportion
 of hours spent on household and care work by female respondents on the day before the survey,
 the proportion of school-aged girls enrolled in school, and the average number of days
 school-aged girls attended school in the last five days when school was open.
- **Business ownership**: This indicator is based on a binary variable that takes the value 1 if the respondent's household has one or more businesses as of endline date. This variable measures household businesses that may relate to agriculture (e.g. resale of produce) but does not include the sale of a respondent's own produce.
- **Employment status of survey respondent**: This individual-level outcome measures whether the survey respondent is in formal or informal employment or self-employment.
- **Migration**: This indicator is based on a binary variable that takes the value 1 if the respondent's household has migrated from the settlement as of endline date.
- **Household composition**: This outcome measures the size of households and the dependency ratio, or the number of household members below 15 years old and above 64 years over the number of household members between 15 and 64 years old.
- **Self-Reliance Index**: Created by the Refugee Self-Reliance Initiative, this index is a scored survey tool for measuring the progress of refugee households toward self-reliance over time (RSRI, 2020).

¹⁰ The first three outcomes were pre-specified as primary outcomes in our PAP, while the rest were listed as secondary outcomes. The exception is the Self-Reliance Index, which was added to our endline survey after the PAP was completed.

2.2.3 Randomization

GiveDirectly is rolling out its UCT program in Kiryandongo refugee settlement over three years. GiveDirectly decided to roll out the program over time to ensure logistical feasibility and minimize inflation risk, and it also allowed IDinsight to conduct the RCT using a phase-in design. For this purpose, each refugee household, which did not have persons with special needs (PSN), was randomly assigned to one of 24 cohorts to receive the cash transfers sequentially by cohort number. Cohorts 1 and 2 became the treatment group; cohorts 17 through 20 became the control group.

In consultation with the refugee leadership, UNHCR, and the OPM in Kiryandongo, GiveDirectly and IDinsight chose a public lottery approach to maximize transparency and perceptions of fairness of the randomization process. In the public lottery, households selected their cohort number from a bucket containing numbers 1 to 24. Randomization was with replacement (e.g., numbers were returned into the bucket after each draw) to further increase perceived fairness among participants, whereas each participant had the same chance of picking any of the numbers, including the preferred earlier cohort numbers. GiveDirectly and IDinsight considered other randomization options, such as computer-drawn randomization. This option would have been simple, quick, and mathematically fair. However, we were concerned about the significant risks associated with this approach. The community could have perceived this as unfair, particularly in a context of low computer literacy and existing ethnic tensions. For example, households that drew later cohorts could have believed that favoritism was shown towards certain ethnic groups.

To run an efficient and timely public lottery with around 9,000 households, GiveDirectly and IDinsight decided to implement the lottery during WFP's monthly food and cash distributions in August 2019. The food and cash distribution is usually well attended by refugees, including those registered in Kiryandongo but living elsewhere, which facilitated households' participation during the lottery.¹²

Overall, the lottery did not cause or increase tensions between community members or ethnic groups, despite the high stakes and pre-existing ethnic tensions. We received no reports of inter-ethnic issues following the lottery. In addition, to substantiate the lottery's purpose of ensuring transparency and fairness, the baseline survey included questions on whether participants perceived the lottery as a fair process to determine the order through which households would be enrolled into GiveDirectly's program and whether they thought it was the fairest approach possible. Survey data shows about 90% of baseline respondents thought the lottery was a fair approach, and 85% thought that it was the fairest approach possible - though perceived fairness was slightly higher among treatment households compared to control households.¹³

¹¹ The UNHCR designates PSN households. GiveDirectly and IDinsight excluded ~1,000 PSN households from the lottery and study due to ethical reasons (e.g., additional ethical concerns in withholding treatment from PSN households for a longer period of time or heightened ethical concerns in working with vulnerable households, including minors in child-headed households). PSN households received the transfer first before everyone else who participated in the lottery.

¹² In total, 8,268 non-PSN households were randomized during the food and cash distribution (e.g., picked their own cohort number). Another 611 households that did not attend the food and cash distribution were randomized in a separate public event, where community leaders picked the cohort number on behalf of households.

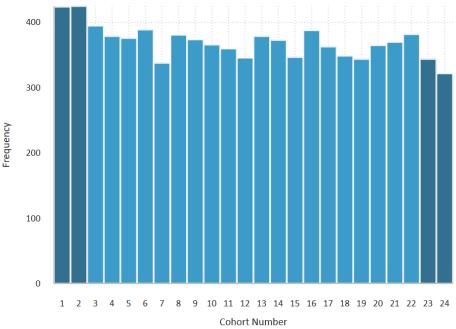
¹³ 86.8% of baseline control households and 92.4% of baseline treatment households thought it was a fair approach. 80.5% of baseline control households and 89.6% of baseline treatment households thought it was the fairest approach possible.

One limitation of this large, rapid public lottery randomization approach was the practical challenge of ensuring no tampering from interested groups. As Figure 5 shows, on average, early cohorts (numbers 1 and 2) were overrepresented with 9.6% of the sample, whereas later cohorts (numbers 23 and 24) were under-represented with 7.5% of the sample. This difference in cohort representation is highly statistically significant (that is, very unlikely to be due to random chance) and indicates signs of tampering with the lottery process.

This is a disappointing finding from the lottery. However, the scale of tampering appears relatively small; there were only 2% more households (out of all lottery participants) in cohorts 1 and 2 compared to cohorts 23 and 24, which is around 187 households out of a total of 8,879 randomized households. The only cohorts in which the number of households are statistically different from their expected value are cohorts 1, 2, and 24.¹⁴ The number of households combined in cohorts 17 to 20 (our control group) does not deviate significantly from their expected values (p=.09).

While the tampering provides a potential source of bias for our results, we believe that the study can still produce reliable results for a few reasons: The magnitude of tampering is relatively limited, we did not use cohort 24 for the control group, and we were able to control for much of the difference in our analysis (by controlling for baseline characteristics such as ethnic group). To test the rigor of the randomization process and prepare for accurate impact attribution at endline, IDinsight conducted baseline balance checks (Table 2).





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¹⁴ The p-value of a comparison of the number of households to their expected value for cohorts 1, 2, and 24 are .007, .006, and .006, respectively. No other cohort has a p-value less than .05.

2.2.4 Sampling and Sample Size

IDinsight's original power calculations resulted in a target sample size of approximately 1,500 refugee households, including 750 households from the treatment group and a random sample of 750 households from the control group. This would have yielded a minimal detectable effect size (MDES) of 0.145 standard deviations (SDs) with 80% power (conservatively assuming no variance correction from the inclusion of regression covariates). We chose this sample benchmarked against effects sizes seen in other GiveDirectly studies, where the lowest effects size tended to be for business revenue (0.16 SDs in Cooke & Mukhopadhyay (2019)).

During baseline data collection, IDinsight learned that some physical households would receive more than one cash transfer. This is because cash transfers are made based on a list of households as registered with UNHCR. We identified households in our study using attestation cards, which list the household head and household members. We define households in line with other studies: those who live together and eat from the same pot. However, the group of people that live together or "eat from the same pot" and the household registered with UNHCR are not always the same. This is problematic for the study as some of our control households live with family members who received a cash transfer before our endline survey. These control households were essentially treated, as they had access to cash transfers before the endline survey. Such "spillover" households in the control group, as well as the equivalent households from the treatment group, were therefore dropped from the study at baseline.¹⁵ This resulted in 1,264 households in our final baseline sample.

We completed 1,090 surveys at endline, which represents 86.2% of the baseline sample. 69 (6.3%) of these were phone surveys due to difficulties finding the households in-person. All other surveys were completed either at respondents' homes, the marketplace, or during the WFP food and cash distribution. The enumerators used various methods to find respondent households, including GPS coordinates, community guides, and documented locations. Ex-post power calculations using our final sample of 1,090 gives an MDES of .16 to .17 SDs for our primary outcomes.

The sample size varies per outcome. Our endline survey contained many modules, which made the survey unreasonably long. We, therefore, shortened it by conducting some modules with only 50% of households: psychological well-being, self-reliance, and food security. The sample sizes are adjusted accordingly (Table 1). The sample size for the migration outcome is larger than the total sample size because it includes anecdotal information obtained by enumerators that report a household as migrated, and therefore we could not complete an interview with them. The female empowerment measure only includes households with women and school-aged girls. Lastly, the sample size for business ownership and revenue is smaller due to missing values and refusals.¹⁶

¹⁵ This includes treatment or control households living with a PSN household.

¹⁶ Many of the other outcome variables are composites of other variables, so we would still be able to construct the composite with a missing value in a subcomponent. Business ownership and revenue are not composite variables so a missing value removes the respondent from the sample for that variable.

Table 1: Sample Size per Outcome

Outcome	Sample Size	Percent of Total Sample	Response Rate (%)
Consumption & Assets	1,090	100	100
Business Revenue	1,083	99.4	99.4
Psychological Well-Being	558 ¹⁷	51.2	100
Female Empowerment	1,011	92.8	100
Business Ownership	1,089	99.9	100
Employment	1,066	94.2	100
Food Security	536	49.2	100
Dependency Ratio	1,090	97.8	100
Migration	1,128 ¹⁸	102.8	102.8
Self-Reliance	531	48.7	100

The sample is 74% female-headed households, roughly equivalent to the composition in Kiryandongo settlement. The largest ethnicity is Dinka, followed by Acholi, then Nuer.

We find some systematic differences between treatment and control groups at endline (Table 2). Compared to the control group, the treatment group was more likely to be ethnically Nuer, less likely to be a minority ethnic group in the "other" category, scored higher on the psychological well-being index, and was more likely to be employed. We conclude that the tampering of the randomization caused most of these differences, and mitigate its effect by controlling in our regressions for baseline values of key covariates (including ethnicity) as well as the baseline value of the outcome variables.

We hypothesize that some ethnic groups were able to tamper with the recording of their lottery draw, which drives the differences we see in ethnic groups as well as other variables that are correlated with ethnicity. In fact, if we condition on ethnicities, all of the other differences are no longer statistically significant and appear relatively balanced. The one exception is the psychological well-being index, which we believe could be affected directly by a participant's draw of the lottery, since the baseline was conducted after the participants were aware of their treatment status, and hence, the psychological well-being could have improved at baseline because of anticipatory effects. Therefore, we do not include the baseline psychological well-being in our regression specifications.

¹⁷ We only asked the modules on psychological well-being, food security, and self-reliance to a random selection of half of the baseline sample. The response rate is 100% for each.

¹⁸ Please note that we are using additional information obtained by enumerators on household's whereabouts that were not surveyed for the migration outcome.

Table 2: Baseline Balance on Main Outcomes and Covariates

Difference **Conditioned on Treatment** Control **Difference Ethnicity** N Mean/SD Ν Mean/SD T-C T-C Gender of Household Head 556 0.723 0.749 534 -0.026 -0.026 [0.448][0.434]Household Head Has at Least 556 0.345 534 0.294 0.051* 0.032 **Secondary Education** [0.476] [0.456] **Household Size** 556 8.619 534 9.094 -0.475* -0.284 [3.901] [4.256] 556 2163.131 534 2176.206 -13.075 **Time in Settlement** -27.446 [2043.631] [1990.799] Ethnic Acholi / Luo 556 0.209 534 0.210 -0.001 [0.407] [0.408]**Ethnic Dinka** 556 0.241 534 0.253 -0.012 [0.428] [0.435]**Ethnic Nuer** 556 0.151 534 0.243 -0.092*** [0.358][0.430] Ethnic Bari (Mundavi, Kuku, 556 0.140 534 0.118 0.022 Kakwa, Pajulu, Nyangwara) [0.348] [0.323] 0.259 0.176 **Other Ethnicities** 556 534 0.083*** [0.381] [0.438]**Total Monthly Consumption** 325.887 534 336.199 -10.312 -2.173 556 Expenditure, USD [210.201] [219.500] 70.398 10.623 534 55.306 15.091 556 Total Assets, Net of loans, USD [244.505] [199.812] **Total Monthly Business** 18.816 4.244 1.596 534 14.573 556 Revenue, USD [58.183] [49.725] **Psychology Well-Being Index** 556 0.052 534 -0.085 0.136** 0.168*** [0.989][1.001] 501 0.025 494 -0.005 0.030 0.028 **Female Empowerment Index** [0.978] [1.014] **Non-Ag Enterprise Ownership** 556 0.205 533 0.163 0.042* 0.021 [0.404] [0.370]**Share of Respondents** 546 0.484 0.408 0.075** 0.030 524 **Employed** [0.500] [0.492] 556 0.497 534 0.495 0.008 **Dependency Ratio** 0.002 [0.218] [0.217]

The value displayed for t-tests are the differences in the means across the groups.

^{***, **,} and * indicate significance at the 1, 5, and 10 percent critical level.

2.2.5 Response Rate

Compared to the baseline sample, the endline respondents were less likely to have a household head with at least secondary education, have been in the settlement longer, were more likely to be Acholio/Luo or Dinka, were less likely to be Nuer, had lower baseline consumption values, and had a larger dependency ratio. The attrition between baseline and endline does not vary by treatment status; therefore we do not expect these imbalances to meaningfully affect our results. Table 6 in the Appendix shows the differences between the respondents we were able to reach at endline compared to the baseline sample.

2.2.6 Data Collection

To measure the causal impact of the GiveDirectly cash transfer on psychological and economic well-being, IDinsight conducted multiple rounds of data collection. The RCT had a baseline (September to November 2019), midline (July to October 2020), and endline study (February to April 2022) (Figure 4).

IDinsight's midline study took place about five months after transfer distribution and comprised three rounds of phone surveys with a sub-sample of households participating in the RCT. The midline study explored the effects of COVID-19 on the refugee community in Kiryandongo and the cash transfer utilization with a focus on short-term health outcomes and behavior. In this report, we compare some findings from endline to the midline results but concentrate on endline outcomes and all qualitative rounds. A full publication of midline findings can be found in Stein et al. (2022).¹⁹

The data collection team included at least one enumerator that speaks each language spoken in the settlement. The team collected the quantitative data using the software SurveyCTO and the average survey length was about two hours. Due to constraints on the length of the survey instrument, some sections differ between baseline and endline (Table 7 in the Appendix).

2.2.7 Analysis

Quantitative analysis is done using a simple OLS regression of the outcome variable on treatment. As pre-specified, we control in all regressions for baseline values of household size, sex of head of the household, time lived in the settlement, and the ethnic group of the respondent. These variables were chosen to select a concise set of variables that we thought ex-ante could be correlated with our outcome variables. When available, we also control for the baseline value of our endline outcome or a close analog. Although it was not pre-specified, we also include a dummy indicating whether the endline survey was conducted by phone or in-person.²⁰

¹⁹ Stein D, Bergemann R, Lanthorn H, et al. 2022. Cash, COVID-19 and aid cuts: a mixed-method impact evaluation among South Sudanese refugees registered in Kiryandongo settlement, Uganda. BMJ Global Health 2022;7:e007747 ²⁰ We did not anticipate conducting phone surveys at the time we wrote the pro-analysis plan.

2.3 Qualitative Study

2.3.1 Overview

The primary objective of the longitudinal, qualitative study was to understand what happened in refugee and Ugandan households as cash was introduced into the settlement and neighboring areas. This includes understanding what changes did (or did not) occur within and between households, and how and why this happened. Secondary objectives included collecting data that will help explain the results obtained in the quantitative study and collecting data on high-priority topics that cannot be easily measured quantitatively.

The study had three focal areas:

- 1. Household preparation for and response to the transfer,
- 2. Contextual factors and changes over time that are related to and may affect key RCT results and facilitate interpretation thereof, and
- 3. Experiences and changes in key topics not captured in the RCT.

The longitudinal study design and the use of open-ended questions allowed us to explore these areas before and after each of the three payments for treatment cohorts, as well as understand changes over time.

2.3.2 Study Topics

The longitudinal qualitative study explored the following topics under each focal area:21

- 1. Household preparation for and response to the transfer:
 - Investments and spending plans and ideas,
 - Household decision-making processes, and
 - Transfer utilization.
- 2. Contextual factors and changes over time related to key RCT results:
 - · Changes in market prices and household response, and
 - Service accessibility and quality (especially health and education).
- 3. Experiences and changes in key topics not captured in the RCT:
 - Hope, aspirations, and (anticipated) long-term impact of the transfer, and
 - Social cohesion, safety, and security.

2.3.3 Sampling and Sample Size

IDinsight originally designed the longitudinal qualitative study to include eight "rounds" of interviews over ten months in 2020. However, due to the COVID-19 pandemic and GiveDirectly's temporary suspension in Uganda, we needed to adapt the design, which can be organized into three phases:

- 1. Pre-COVID-19 in-person interviews,
- 2. COVID-19 phone interviews, and
- 3. Post-lockdown, in-person interviews.

²¹ See Table 8 in the Appendix for a full overview of topics per interview round.

Below, we discuss the sample for each of these phases. As in the RCT, the qualitative interview respondents²² were usually household heads as recognized by the OPM. If the household head was not available, we spoke with the next most knowledgeable person in the household as identified by the household member first reached.

Phase 1: Pre-COVID-19 in-person interviews

Until Uganda entered its first COVID-19 lockdown in March 2020, we completed the first two rounds of in-person interviews with 41 respondents from the following groups:

- 20 refugee households randomly selected from cohort 3, representing the experiences of households scheduled to receive their transfers early during the study period,
- 12 refugee households randomly selected from cohort 12, representing the experiences of households scheduled to receive their transfers towards the end of the study period, and
- 9 Ugandan households randomly selected from two villages (Ndoyo²³ and Panyadoli-A²⁴) nearby the settlement and selected to receive GiveDirectly's intervention.

We used stratified random sampling with households stratified on gender of the household head. The selected sample also provides variance on other relevant aspects such as household size, ethnicity, and age.

Phase 2: COVID-19 phone interviews

During the COVID-19 pandemic and lockdown in Uganda, we pivoted to remote data collection. This resulted in a reduced sample size due to some households not having phones or reliable phone reception. In addition, our qualitative interviewers did not cover all the languages spoken by respondents and using a translator for phone interviews was not viable. We also added additional respondent groups and experimented with different ways of collecting data by trialing WhatsApp-based structured interviews using voice messages.

Overall, the sample included 44 respondents from the following groups:

- 12 (out of 20) refugee households from the cohort 3 in-person sample,
- 5 (out of 12) refugee households from the cohort 12 in-person sample,
- 7 (out of 9) Ugandan recipient households from the in-person sample,
- 11 refugee households from cohort 1, 2, 17, 18, 19, or 20 participating in the structured "WhatsApp interviews", and
- 9 purposively selected "Key Informants" (KIs), including 7 of our baseline enumerators living in the settlement, a teacher from Bweyale, and a nurse from Panyadoli Health Center in Kiryandongo settlement.

²² The sample for the qualitative study was selected from cohorts 3 and 12, which were different from the cohorts (1-2 and 17-20) used for the RCT sample. We chose different cohorts primarily to reduce the interview and survey burden on respondents. Cohort 3 started to receive their transfers in May 2020. The qualitative study sample for "non-recipients" was from cohort 12 and they started to receive the transfers in March to April 2022 as we were conducting the final round of interviews.

²³ Ndoyo is a host community village ~10km from the settlement. We sampled 3 recipients from Ndoyo.

²⁴ Panyadoli A is a settlement for internally displaced persons (IDPs). It borders the refugee settlement to the East. The residents here are mainly Ugandans who were resettled after the 2010 landslides in Mbale, Eastern Uganda. We sampled 9 recipients from this settlement.

Response rates fluctuated over time (Figure 6). Response rates were mostly higher among Ugandan respondents than refugee respondents and mostly higher among cohort 3 than cohort 12. Furthermore, when we transitioned to phone interviews, we had a more difficult time reaching female respondents. Among the 17 refugee respondents we reached at least once during the phone interviews, men responded to 69% and women to 63% of all call attempts. We interpret this as more likely related to competing demands on women's time rather than the influence of having male interviewers.

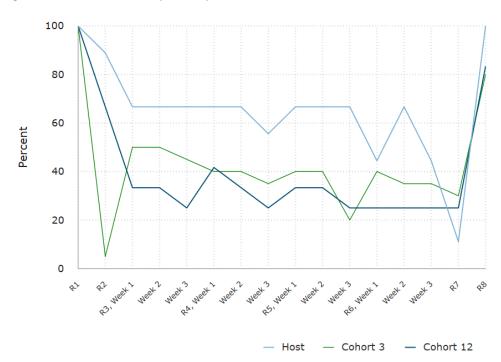


Figure 6: Qualitative Sample Response Rates

Phase 3: Post-lockdown in-person interviews

IDinsight conducted an additional and final round of qualitative interviews in 2022 in parallel to endline data collection. This sample included 51 respondents from the following groups:

- 16 (out of 20) refugee households from the 2020 cohort 3 in-person sample,
- 11 (out of 12) refugee households from the 2020 cohort 12 in-person sample,
- 9 (out of 9) Ugandan "recipient" households from the 2020 in-person sample as well as an additional 3 households sampled in 2022 from Panyadoli-A,
 - 9 purposively²⁵ sampled Ugandan respondents from villages that have not been selected to receive GiveDirectly's transfers (Yelekeni²⁶, Adagwo²⁷, and Panyandoli-B²⁸), and
 - 3 purposively selected Ugandan KIs from Bweyale town (e.g., a health worker, teacher, and business owner).

²⁵ We selected three villages that have not been selected to receive a GiveDirectly transfer. We narrowed down to these villages based on the perceived level of interaction that they have with the refugees in the Kiryandongo settlement. To determine this, IDinsight relied on guidance from GiveDirectly staff who have interacted with both the host and refugee communities. As we did not have a household list to randomly select interviewees, we worked closely with the village leaders to purposively identify and select 12 households.

²⁶ Yelekeni village is ~3km from the refugee settlement.

 $^{^{\}rm 27}$ Adagwo borders the refugee settlement to the North.

²⁸ Panyandoli-B is ~4km from the refugee settlement and borders Panyandoli-A (a transfer recipient settlement for IDPs).

The 2022 data collection also included a Focus Group Discussion with nine leaders from all host communities represented in our qualitative sample. There were five respondents whom we could not contact or refused to participate. Table 3 compares the original in-person sample, remote sample, and 2022 sample on gender and ethnicity by respondent group.

Table 3: Sample Size and Composition per Phase of Qualitative Data Collection

	In-person (2020)	Remote (2020)	In-person (2022)
Cohort 3	20	12 (60% of original sample)	16 (80% of original sample)
Cohort 12	12	5 (42% of original sample)	11 (92% of original sample)
Host Recipients	9	7 (78% of original sample)	12 (100% of original sample + 3 new respondents)
Host Non-Recipients	-	-	12 (N/A)
Male	16 (39%)	12 (50%)	24 (47%)
Female	25 (61%)	12 (50%)	27 (53%)
Dinka*	10 (31%)	3 (18%)	8 (30%)
Acholi*	8 (25%)	5 (29%)	8 (30%)
Nuer*	7 (22%)	3 (18%)	7 (25%)
Bari*	3 (9%)	3 (18%)	2 (7%)
Madi*	2 (6%)	2 (12%)	1 (4%)
Other (e.g., Zande, Moru, etc.)*	2 (6%)	1 (6%)	1 (4%)
Bagishu	7 (78%)	7 (100%)	10 (42%)
Acholi	1 (11%)	-	6 (25%)
Alur	-	-	3 (13%)
Basoga	-	-	1 (4%)
Banyoro	1 (11%)	-	1 (4%)
Madi	-	-	1 (4%)
Teso	-	-	1 (4%)
Unknown	-	-	1 (4%)

^{*}Refugee respondents only

2.3.4 Data Collection

Qualitative data collection took place from early February to early September 2020 as well as from mid-March to mid-April 2022. In 2020, we worked with a team of two male interviewers and two male interpreters, recruited from our baseline team and trained to conduct qualitative interviews. In 2022, we worked with a team of five male interviewers covering all the main languages spoken by refugee and host communities.

We conducted a total of 345 interviews over eight "rounds" - three of which were in-person and five were remote, seven in 2020 and one in 2022. In-person interviews lasted about 90 minutes and covered multiple topics. To minimize fatigue associated with phone interviews, we reduced the length to 30 minutes but increased the frequency to three interviews per "round" - usually a week apart and covering a specific topic area. Table 8 has a detailed overview of topics covered during each interview round. All interviews were audio-recorded, translated, and transcribed by the interviewers and then coded and analyzed using a thematic approach.

2.5 Data Quality

IDinsight took several steps to ensure data quality before, during, and after data collection.

2.5.1 Before Data Collection

Instrument Design: We designed the survey instrument to minimize human errors through logical checks and constraints. For example, enumerators could only enter the price of maize if they first selected that the respondent consumed maize. Similarly, they could not enter a value of maize above or below a certain realistic threshold.

Enumerator Training: In addition to the built-in quality controls, we conducted a series of training sessions for our enumerators, where they learned how to build rapport, probe responses, and use the survey tool and piloted the survey as a practice round. We supplemented the training sessions and piloting with ongoing training throughout data collection and daily briefings to discuss any challenges encountered during collection.

2.5.2 During Data Collection

Spot Checks: During data collection, supervisors randomly sat in on interviews to observe the enumerators and provide feedback to improve their performance. However, these had limitations; for example, because of the large number of respondent languages, sometimes spot-checked interviews were in a language that the supervisor did not understand and therefore focused on non-verbals instead of content. Furthermore, enumerators moved long distances throughout the settlement to find households. This meant the field management team could struggle to locate enumerators, making unannounced spot checks less common at baseline. At endline, we used household GPS data, which facilitated unannounced spot-checks.

Audio Audits: IDinsight contracted a third-party research firm to conduct audio audits on a small portion of our surveys at baseline. At endline, we hired a separate, internal auditor team. Audits included the informed consent and key sections that activate skip patterns at 100% and all other sections at random. These audits provided useful insights on enumerator performance and areas for improvement.

High Frequency Checks: The supervisors checked all incoming questionnaires each afternoon before submission, including one detailed review per enumerator per day. This helped identify typos and suspicious values or patterns to address with the enumerators before submitting. We also conducted daily high-frequency checks (HFC) on aspects like survey length and enumerator efficiency, the number of "don't knows" or refusals, extreme values, skipped survey sections, and GPS accuracy. The HFC helped identify challenges in survey administration. Many of the challenges identified were addressed as part of data cleaning and are documented in the analysis files.

Checks of Qualitative Data: We recorded the qualitative interview data using three methods to ensure accuracy in our records: note-taking, audio recordings, and transcriptions of recordings. If we needed more context, we followed up with interviewers. The team held regular debriefs and provided interviewers with feedback on the quality of notes, transcripts, and probing.

2.5.3 After Data Collection

Data cleaning: Once endline data collection was completed, we manually cleaned the data based on feedback from enumerators or other errors caught during the HFCs. For example, some enumerators noted that all values recorded were in South Sudanese pounds, and we changed all values using a uniform exchange rate. We also found an unusually high number of outliers. In addition to winsorizing, we documented a systematic approach to cleaning outliers that involved comparing individual values to the distribution of responses and spotting cases of obvious typos (such as adding an unrealistic extra zero).

2.6 Ethical Considerations

IDinsight received ethical approval to conduct this study from Mildmay Uganda Research and Ethics Committee (#REC REF 0101-2019) and registered the study with the Uganda National Council for Science and Technology (UNCST) (SS281ES). Due to protocol changes required by the COVID-19 pandemic (e.g., remote data collection and safety protocols for in-person endline data collection) and design updates (e.g., adding midline and inclusion of the self-reliance module), IDinsight submitted amendments in April and September 2020, in March 2021, and in February 2022. All amendments were approved by Mildmay and registered with UNCST.

This study relies on a randomized phase-in design. As outlined in the previous section on randomization, multiple constraints apart from the RCT prevented GiveDirectly from making all the transfers at once. Therefore, the existence of the RCT did not cause delays of the transfers in aggregate.

IDinsight did not provide incentives or compensation to respondents at baseline. However, for in-person interviews in 2020, we provided a soda and snack. Wee provided 4,000 UGX (~1.11 USD) for all phone surveys or interviews to compensate for charging phones. At endline, we provided all in-person respondents with a bar of soap worth ~3,500 UGX (~0.97 USD).

We provided all respondents with a "Study Information Sheet" in their respective language outlining detailed information about the study, its purpose, risks and benefits to participation, confidentiality, and that participation is voluntary. We also administered a comprehensive informed consent with all respondents before the survey or interview summarizing the key information included in the "Study Information Sheet." During the longitudinal interviews, we administered a full consent process during the first interview and then "re-consented" in any subsequent interview. Informed consent was audio-recorded in all cases.

We took intensive precautions to avoid the spread of COVID-19 during data collection. Our data collection team wore masks and provided masks to the respondents. All enumerators were expected to maintain social distance with the respondents and conduct all interviews outside. Enumerators carried sanitizers with them at all times, sanitized before and after each interview, and offered this option to the respondents. We provided free rapid COVID-19 tests to the data collection team and highly encouraged them to test if needed. In line with directives from the OPM for conducting in-person activities in Uganda's refugee settlements, all staff were fully vaccinated at endline. IDinsight supported staff to obtain their vaccination if they were not already vaccinated at the time of their recruitment.

We also trained our enumerators on handling vicarious trauma and psychological first aid. This training included how to make respondents feel comfortable and safe in the interview. Enumerators were trained to provide respondents with contacts of organizations who may be able to support the individual.

3. Results

3.1 Overall Findings

We found that the large, one-time UCT to refugees in Kiryandongo settlement improved households' economic welfare as captured by the primary study outcomes as well as psychological well-being and self-reliance. An average of 19 months after receiving the transfer, recipient households showed increased consumption, asset ownership, business ownership and revenue, psychological well-being, and self-reliance compared to the control group. The evaluation did not find statistically significant effects on food security, migration, female empowerment, employment, household size, or the household dependency ratio. See Table 4 and Figure 7 for the effect of the GiveDirectly transfer on all primary and secondary outcomes. Note that while some of the transfers were made in 2022 shortly before endline, these transfers are not driving the results. If we remove all households who received transfers in 2022 from our sample, our results remain similar, and the point estimates actually increase for most outcomes.

Table 4: Effect of the GiveDirectly 1,000 USD UCT on all Outcomes

Dependent Variable	Control Mean	Control SD	Treatment Effect	Standar d Error	P-Value [FWER adjusted ²⁹]	N
Total Monthly Consumption Expenditure	297	213	32.3***	12.2	0.008 [0.007]	109 0
Total Assets, Net of Loans	2286	5519	1386***	419	0.001 [0.002]	109 0
Total Monthly Business Revenue	22.3	77.1	14.3***	5.4	0.009 [0.007]	108 3
Food Security Index	0.000	1.00	0.093	0.079	0.237	536
Female Empowerment Index	0.000	1.00	-0.031	0.062	0.621	1011
Non-Ag Enterprise Ownership	0.220	0.414	0.086***	0.025	0.001	108 8
Respondent Employed	0.478	0.50	0.038	0.029	0.190	106 6
Household Size (Endline)	9.45	4.55	0.001	0.178	0.994	109 0
Dependency Ratio	0.405	0.189	0.006	0.011	0.571	109 0
Psychological Well-Being Index	0.000	1.000	0.278***	0.083	0.001	558
Migration (Net Number of Household Members Who Left Settlement)	0.073	2.433	0.101	0.147	0.489	1090
Household Self-Reliance Score	2.21	0.778	0.125**	0.062	0.044	531

All currency values reported in USD and winsorized at 99%. Regressions in Panel A control for their respective baseline values. All regressions control for household size, sex of head of the household, time lived in settlement, ethnic group of the household, and a phone survey dummy. Robust standard errors reported in parentheses. FWER-adjusted p-values reported in brackets. Non-agricultural enterprises exclude the sale of respondents' own produce.

²⁹As specified in our pre-analysis plan, we use the Family-Wise Error Rate (FWER)- adjusted p-value for only our pre-specified primary outcomes to account for multiple hypothesis testing.

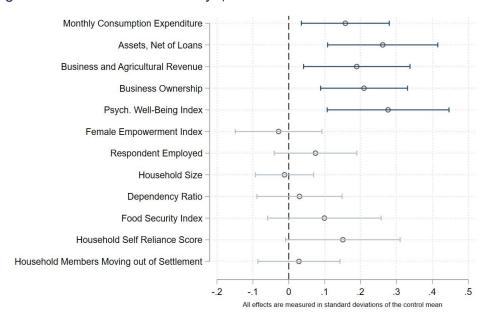


Figure 7: Effect of the GiveDirectly 1,000 USD UCT on each Outcome

In the longitudinal qualitative study, we asked respondents about their top uses of the transfer at present and their priorities for how they plan to use it in the future and noted a re-prioritization from education to food at the onset of the COVID-19 pandemic (Figure 8). In addition to transfer use, we also explored the concepts of social cohesion, safety, and security in the qualitative study. Overall, many respondents described an environment of positive and supportive relations among neighbors, different ethnicities, and between refugees and Ugandans that have gradually improved over time. However, many respondents also described persisting conflicts, especially among refugees, often driven by cleavages originating in South Sudan's civil war and occasionally resulting in eruptions of violence within the settlement. Lastly, most respondents felt safe in the settlement and Uganda more broadly; though - while improved over time - theft has been a common challenge.

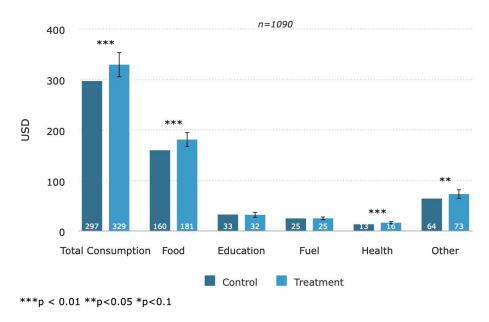
We do not find strong evidence that the GiveDirectly positively or negatively affected social cohesion or safety and security in Kiryandongo. However, we do find qualitative evidence that the GiveDirectly transfer may have contributed to conflicts within families and exacerbated existing tensions around price discrimination towards refugees and contributed to predjudices between refugees and Ugandans.

Figure 8: Top Three Most Common Transfer Plans and Actual Utilization in Three Rounds of Qualitative Data Collection



3.2 Consumption and Food Security





Refugee households increased their consumption by 32.3 USD (11%) more per month compared to those who did not yet receive the transfer. This increase is meaningful; it is roughly the same amount that the average family spends on educational expenses in a month. The largest contributor to this increase is food consumption, which increased by 21.1 USD (Figure 9).

Before the onset of the COVID-19 pandemic, education was the most popular plan for transfer use among both refugees and host recipients in the qualitative study. However, the long, COVID-19- induced school closure, ³⁰ increasing food prices, and WFP aid cuts required them to prioritize more immediate needs, such as food consumption in 2020 (see Figure 8 above). However, among respondents who received their transfers in 2022, ³¹ many used the transfer for school fees with schools reopening.

Although we see clear increases in food consumption, we do not see a significant increase in our food security index (although it has a positive point estimate).³² This is in contrast to the midline, where we did see an increase in food security but not in total food consumption. This may partially be due to variations induced by small samples: the midline phone survey had a small sample (for the first round, n=633), and at the endline we only asked the food security module to 50% of households. Additionally, we see that food security levels were notably lower at midline compared to endline. The low midline levels were likely driven by the dual external shocks of COVID-19 and WFP aid cuts and show that refugee households remain vulnerable to food insecurity. However, the cash transfer helped to mitigate these external shocks. At endline, we see better food security across both treatment and control groups compared to midline with both groups spending similar amounts on staples and pulses. However, treatment households

Uganda closed schools for 22 months, the longest school national school closure worldwide (Sandefur, 2022).
 Cohort 12 respondents in the qualitative study received their transfers around the same time as our final round of qualitative interviews in 2022.

³² We see positive and significant effects on three components on the index: "Members eat until content every day" (increases by 0.10), "Household has enough food in the house" (increases by 0.09), and "Number of days members did not have to rely on seed stock for food" (increases by 0.29). However, it is hard to know if these increases are meaningful or due to chance.

significantly increased their spending on more preferred, expensive, and perishable foods, such as fruits, vegetables, and meats (Figure 10). This dynamic may explain why we find no overall effect on food security, while the value of food consumption increased significantly compared to the control group.

The qualitative data support the theory that households are relatively more food secure at endline and consume higher-value foods. Qualitative interview respondents highlighted the prevalence of hunger in 2020 (before the transfers and during the lockdown), but once GiveDirectly resumed transfer distribution post-lockdown, qualitative respondents mentioned that "hunger disappeared," and they were "able to eat good food" and "change [their] diet." For example, one respondent [F, SSD, N-R]³³ explained that before the GiveDirectly transfer, she and her neighbors used to "rely on only one main source of food." They started to "buy anything of their choice" such as "meat, fish, [or] rice." Some recipients expressed that they have started to consume more preferred foods such as the cultural dishes of "chapati" or "akop."

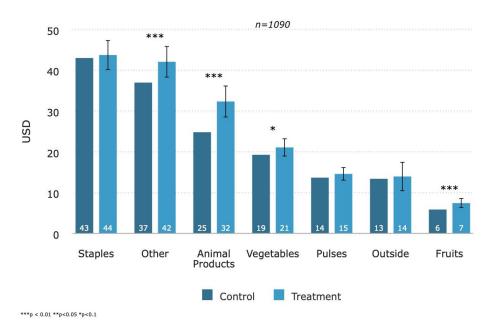


Figure 10: Breakdown of Monthly Food Consumption

We also find significant effects on health spending by refugees, which increased by 2.8 USD (21%) and includes spending on medical visits, medicines, and transport compared to the control group (Figure 9). From the qualitative interviews, health spending is more prevalent among refugees than host communities. The refugees talked about being able to "seek better treatment," afford to pay medical fees and as a result, their families were now in "good health."

Refugees have a small but statistically significant increase in temptation goods of 0.50 USD (75%), which is driven by alcohol spending which increased insignificantly by 0.35 USD (3.2%). A few respondents shared that people used the GiveDirectly money on alcohol or mentioned "alcoholism" as one of the main negative changes they have observed and attributed to the GiveDirectly transfer. These stories did not appear to indicate a systematic trend of the GiveDirectly transfer driving increased alcohol consumption. In 2020, the COVID-19 lockdown closed bars which reduced alcohol consumption, according to qualitative respondents. They also attribute any increases in alcohol consumption at midline to increased idleness from school closures and unemployment from COVID-19.

³³We use three key characteristics of our respondents using the following codes: F = female, M= male; UG= Ugandan, SSD = South Sudanese displaced in Uganda. R= recipient of the GiveDirectly transfer, N-R = non-recipient.

In our qualitative interviews, host households describe that they largely spent the transfer on agricultural investments. Some bought land and farm inputs, others hired labor or used tractors, and others expanded their farming by renting additional land. Unlike refugees, host households have access to larger pieces of land to cultivate, which makes it sufficient for subsistence and cultivation for sale. On average, refugees have access to 1.4 acres and Ugandans have 3.4 acres.³⁴ Agriculture is the primary economic activity in Kiryandongo district (Uganda Invest, 2018). One refugee respondent [M, SSD, R] explained that "the garden given to me is too small to support my family."³⁵ By comparison, a Ugandan respondent [M, UG, R] expressed that his "salary comes from the garden." Host communities' greater reliance on farming may have also made them less vulnerable to the shock of COVID-19 and subsequent aid cuts and food price fluctuations.

3.2.1 Market prices

Household consumption may have reacted to price fluctuations in the market. Respondents in our qualitative interviews identified five main reasons for fluctuations, in order of frequency:

- 1. External shock-induced price increases (e.g., supply-side constraints from the temporary closure of borders during COVID-19 or crop shortfall because of "too much sunshine"),
- 2. GiveDirectly transfer-related price effects (e.g., price-discrimination towards refugees and increased demand)
- 3. Regular, seasonal price changes ("when it is the season the price drops, but when the season goes off the price goes up"),
- 4. High demand from "overpopulation," and
- 5. Annual, inflation-type changes with prices "just increasing continuously" and "slowly."

While some respondents noted that price increases are standard (e.g., seasonal, inflation, etc.), many felt that by April 2020 prices were "over-increasing." Respondents often attributed such sharp price increases to supply-side constraints "because of that sickness [COVID-19]." Many respondents also shared that prices within the settlement were higher than in nearby Bweyale town as vendors sell with a mark-up. While the majority of Ugandan respondents felt that the GiveDirectly transfer had no effect on prices, the majority of refugees thought otherwise. Many refugee respondents thought that "Ugandans can over-charge" them because they think that "refugees have money" and were "given free money." Relatedly, some refugee respondents observed that "each time they make transfers, the market can be full" with recipients "buying and stocking a lot of things." Consequently, "the seller sees there is a lot of money" and increases the prices.

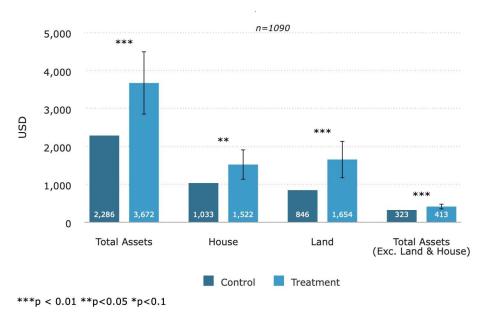
³⁴ This is based on small-n, qualitative data.

³⁵ This reflection is echoed in Braak & Kenyi (2018) and MacPherson & Sterck (2021).

³⁶ Food prices increased notably between April and June 2020. See Figure 18 in the Appendix for an overview of self-reported and WFP reported price fluctuations on selected food items in 2020.

3.3 Assets





Transfer recipients planned to spend the transfer on home improvements and land purchases and were able to follow through with these plans. OPM allocates a plot of land to every refugee with the intention for refugees to use the land for cultivation for subsistence or selling crops, but refugees also need this land for living purposes (e.g., shelter, latrine, cooking) (Omata, 2020). Refugees are legally not permitted to formally own land, such as having a title deed, but they are allowed to rent or lease land for cultivation or pasture. A few refugee respondents in the qualitative interviews discussed land issues such as the fear of being "chased away" from land assigned to them, their plot size being reduced (further), or land being given to others (including Ugandans). Similarly, locals who were resettled and did not have title deeds worried about being evicted (See Bategeka, 2021: "Uganda Lands Minister Halts Kiryandongo Evictions"). Furthermore, Ugandan policy permits refugees to own homes, but they may not construct permanent structures in the settlements, such as those that use burnt bricks or cement (UNHCR, 2019).

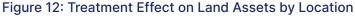
Refugee recipients increased their asset value by 1,385.9 USD (60%) compared to those who did not yet receive the transfer, the vast majority of which is driven by house and land values (Figure 11).³⁷ The value of homes increased by 488.1 USD (47%) as many households used their transfers to construct or improve housing, such as adding another room or installing an iron-sheet roof. At endline, treatment households reported (on average) having 0.48 more rooms in their houses and 0.21 more houses with iron-sheet roofs than the control group. In the qualitative interviews, one respondent [M, SSD, R] noted that "a lot of people used the money for constructing new houses or renovating old ones" and that "there were no good houses before but now they are there." Similarly, the host community leaders also observed that the transfer recipients in their villages "have been able to build houses and others were able to buy land."

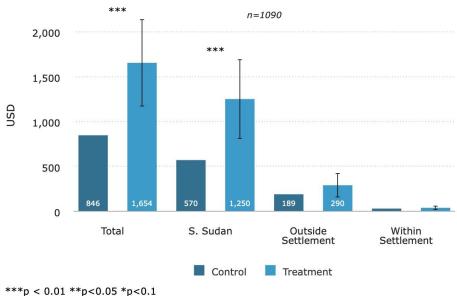
³⁷ The value of houses and land were estimated by households, and therefore may not accurately reflect their market value.

Many refugee respondents highlighted home construction and improvements as the most notable positive change in their lives from the transfer. More specifically, respondents shared how more durable roofs better protect them from poor weather conditions. For example, one respondent [M, SSD, R], who used the transfer to buy a metal roof, said he is "very comfortable, even if it rains." He described that before the improvement, he would "have to keep shifting [his] bed from one point to another inside the house" when it rains. Another recipient [F, SSD, R] used the transfer to construct an additional room for the children because "it is not good for seven or eight people to sleep in one room."

After home improvement, refugee respondents most frequently mentioned land purchases in our qualitative interviews. The value of land increased by 807.6 USD (95%) compared to the control group. The effect is driven by increases in the value of land in South Sudan by 680.2 USD (Figure 12). However, we do not have qualitative or anecdotal evidence of refugees investing into land or housing in South Sudan. Since very few refugees expressed intentions to return to South Sudan, it is unlikely that refugees are buying new land plots there. One hypothesis is that refugee households are developing existing property in South Sudan, resulting in value increases. Treatment households may also value their land in South Sudan higher compared to control households. Lastly, the South Sudanese pound experienced a depreciation in 2020, which may have influenced the accuracy of responses.

Some respondents in the qualitative interviews mention informal land trading either among residents or with employees of local authorities, although we do not find a treatment effect on land within the settlement in the quantitative data. KIs and respondents highlighted that certain housing and land investments within the settlement require unofficial payments to local leaders and authorities, constituting an additional informal "tax" on such asset investments that would otherwise not be permitted. We do not find evidence of this in our consumption data; however, such fees may be reflected in respondents' land and housing valuation.³⁸





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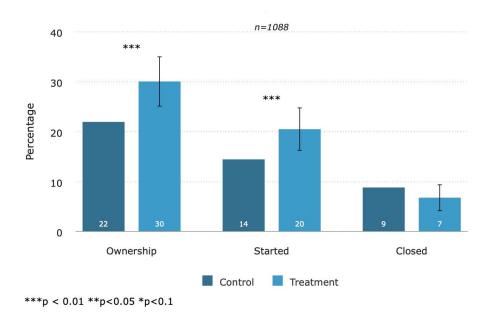
³⁸ We note that such informal transactions were likely present before the introduction of the cash transfer, but the transfer may have further encouraged rent-seeking behavior.

Excluding house and land values, total net assets increased by 90.4 USD (28%) for treatment households compared to control households (Figure 11). We find significant increases in the value of savings (23.7 USD or 63%) and loans made to others (10.3 USD or 116%). According to one respondent in 2020 [F, SSD, R], she saved the entire GiveDirectly transfer "for [school] fees" once schools reopen. Household assets increased by 49.5 USD (29%) compared to the control group. The increase in household assets is mostly driven by beds (12.2 USD), mattresses (11.6 USD), and mobile phones (10.8 USD).⁴⁰ One respondent [M, UG, R] noted that he used the GiveDirectly transfer to buy a new mattress and he "can now sleep well" compared to before, when he did not sleep in "a good place." From the qualitative data, other assets purchased included bicycles and motorcycles, which were used for own transport to "ease their movement" and also "bodaboda" services; sewing or grinding machines used for business; furniture, utensils, mattresses, televisions, and radios bought for the respondents own comfort; solar panels and livestock for future sale.

3.4 Livelihoods

3.4.2 Business Ownership

Figure 13: Treatment Effect on Business Ownership



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Household assets include bicycles, radios, sewing machines, beds, bednets, mattresses, pots, cleaning supplies, tables, sofas, chairs, cupboards, clocks, televisions, mobile phones, farm tools, and solar electricity devices.
 As discussed in section 1.5 above, 85% of our treatment sample chose to receive a phone from GiveDirectly during enrollment. GiveDirectly consequently deducted 68,000 UGX (18.9 USD) from the final installment.

⁴¹ Bodaboda is a popular term referring to motorcycle taxi service.

Before receiving transfers, more than half of the refugees planned to use the transfer to start businesses. In line with their plans, business ownership (new and existing) increased by 8.2 percentage points compared to the control group, 54% of which comes from small shops either in the market centers within the settlement or nearby Bweyale town or run from their home (4.4 percentage point increase) (Figure 13). In 2020, one respondent [M, SSD, R] shared that "compared to last year," more "people have opened businesses" and that "this is because of the GiveDirectly money." However, from the qualitative interviews, we found that only a few early recipients started businesses, while the others disregarded their business plans - often because of the COVID-19 pandemic and lockdown. One respondent [F, SSD, R] expressed that she "would have done business like others" if she had "received [the GiveDirectly transfer] out of the COVID-19 period."

The treatment group was 4.4 percentage points more likely to own a retail store or kiosk and 1.3 percentage points more likely to be a brewer compared to the control group. One qualitative respondent [F, SSD, N-R] describes that her brewing "business is fair" and that "there is demand" - however, the effects on alcohol consumption are minimal in our quantitative consumption results. Other common businesses include selling food items (2.0 percentage point increase) and services⁴² like a hairdresser, butcher, or tailor (1.7 percentage point increase), but the increases are not statistically significant. In general, transfer recipients were 6.1 percentage points more likely to start a new non-agricultural business. The common businesses mentioned in the qualitative interviews, in order of frequency, included:

- Selling food and non-food items at the market or from home (e.g., small road-side stall),
- Tailoring (sewing and selling table clothes and bedsheets),
- Selling second-hand clothes,
- Brewing alcohol,
- · Running a small restaurant, and
- Exporting agricultural produce to South Sudan.

Though positive, these effects may have been weakened by the COVID-19 pandemic. Less than half of respondents stopped their business during lockdown. Some kept their business running, restarted it after lockdown, or kept being in and out of business. Those that kept their businesses open faced challenges from movement restrictions, curfews, low demand, high prices, and low capital.

Some business owners, regardless of transfer status, benefitted indirectly from the GiveDirectly transfer. This included "mobile money business, grinding machines, hardware business, clothes, phones, foodstuffs, etc." One respondent [M, SSD, R] noted that "people with tippers [construction trucks] are making money" and "right now getting bricks is not easy." However, not all businesses started were successful. A few respondents mentioned their businesses were "not doing well."

Some of the business challenges mentioned by Ugandan respondents include COVID-19 lockdown measures (e.g., movement restrictions, curfew, closure of businesses during strict lockdown, etc.), customers lacking money, low demand, and low start-up business capital. Aside from pandemic-related challenges, respondents note difficulties with theft and high competition "because a lot of people started businesses."

⁴² Services include hairdresser, butcher, tailor, transport services (ex. bodaboda rider), bicycle repair, phone charging/computer services, grinding mill, and laundry.

3.4.3 Sources of Revenue

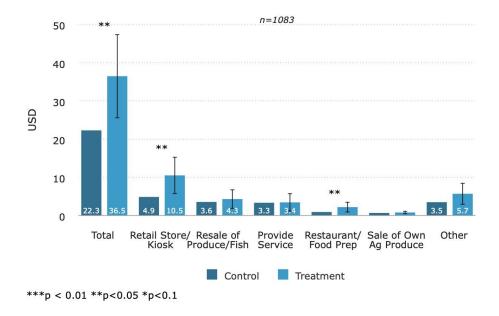
Business Revenue

Transfer recipients earned 14.3 USD (64%) more in monthly business revenue compared to those who did not yet receive their transfer, which is almost entirely driven by household-owned enterprises (14.2 USD), as opposed to the sale of crops from the respondent's own agricultural production (Figure 14). Some qualitative respondents reflected on business growth, attributing it to increased demand or "transfer use by refugees."

Among the refugees, we do not find evidence of the transfer increasing monthly revenue of the respondent's own agricultural production.⁴³ The qualitative interviews suggest that, for refugees, agricultural revenue only supplements other income sources. 78% of refugees planted crops during the most recent harvest season. Of those who planted crops, 19.4% sold their produce (in whole or parts).

Ugandan transfer recipients in the qualitative study report improvements in agricultural production due to the GiveDirectly transfer. They mentioned using the transfer to buy agricultural inputs, such as seeds, pesticides, oxen, tractors, and renting land. One respondent [M, UG, R] shared that he "used to dig small acres" but has now increased "the size of the garden from 2 or 3 to 8 or 10 acres." Ugandan respondents also hired agricultural laborers, which allowed them to work faster and more productively, therefore increasing farm yields and sizes. One respondent [M, UG, R] said that hiring labor allowed him to "rest" and "attend to" other matters while "the work is going on there in the garden." According to some qualitative respondents, the influx in agricultural production "lowered the price of maize per kilogram," resulting in lower income from the harvest. Additionally, some Ugandan farmers reported losses due to bad weather conditions like "too much sunshine" or COVID-19, which brought laid-off workers in other sectors to the agricultural sector. The primary crop for both Ugandans and refugees is maize.





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⁴³ Treatment effect = 0.124, p-value = 0.43

Employment

Uganda's legal and political framework permits refugees to move outside of the settlement and seek employment opportunities. In 2020, only about one-third of the refugee, qualitative interview respondents were employed (both formally and informally), mostly as casual workers. They faced significant challenges such as job market discrimination, bureaucratic hurdles, limited professional networks, and seasonality of casual labor. Refugee respondents explained that many Ugandan employers did not accept South Sudanese certificates and degrees and preferred to hire Ugandans; they "only employ[ed] citizens." Refugees who were hired often received lower pay than their Ugandan counterparts. One respondent [M, SSD, N-R] gave an example that "refugees are not given adequate opportunity when it comes to employment with NGOs." Refugees sometimes also did not have the required "papers" needed for employment, such as "national identity cards or refugee identity cards." They further explained that high labor supply and low labor demand made it difficult for refugees to find jobs, especially with limited professional connections and recommendations. Lastly, the main job opportunities like "digging" (garden work) were seasonal. In 2020, the qualitative respondents (both Ugandan and refugee) shared that COVID-19 pandemic further limited them with movement restrictions and reduced demand for labor.

While the 2022 quantitative data show small increases in the likelihood that a transfer recipient will be self-employed, salaried, or employed (1.7, 1.6, and 3.8 percentage point increase, respectively), the effects are not significant. However, according to qualitative respondents, the transfer increased opportunities for casual work, even for non-recipients. A construction worker [M, SSD, R] said the GiveDirectly transfer resulted in "a lot of work within the settlement" for him. Another respondent [M, U, R] explained that "nowadays, there is a lot of work, especially in the gardens" and that some "employed other people to work in their gardens." In addition to garden work and construction, casual workers in Kiryandongo settlement may have worked for organizations such as WFP. It is therefore possible that positive spillovers within the settlement drive our null results on employment.⁴⁴

Remittances and Migration

Migration in Kiryandongo is difficult to define, as entire households and specific household members tend to move in and out of the settlement. Our migration metrics only attempt to determine whether households have left the settlement permanently, or whether household members have permanently left the household. It is possible that households were hesitant to report migration for fear that their responses would affect their ability to get their per-household member monthly WFP aid. We tried to mitigate this risk by emphasizing that their responses are confidential and would not affect the support respondents receive from organizations.

Based on these metrics, we do not find quantitative or qualitative evidence of the transfer motivating migration back to South Sudan, Kenya, Kampala, or anywhere outside of Kiryandongo district. Qualitative refugee respondents explained that their household members who migrated back to South Sudan were mainly men looking for "better opportunities to study or find work," especially during the lockdown in Uganda. Some temporarily migrated to "look after a sick relative" or "seek treatment after an injury."

Some refugee household members had traveled to other parts of Uganda, such as Kampala and Arua, for "work," "school," or because of "ease of access" to food, transport, and education. Although, the majority of respondents did not plan to migrate because of the high cost of living outside the settlement and "expensive" relocation costs.

 $^{^{44}}$ For more information on spillovers, see section 3.13.1

Despite lacking evidence of increased migration, we do find that income from remittances increased by 11.8 USD (61%). A few qualitative respondents mentioned they sometimes receive money from relatives and one of our KIs [F, Nurse in Bweyale town] noted that some of the patients receive support from "their caretakers" abroad. We hypothesize that the transfer allowed household members to increase temporary migration (which we did not measure), and therefore increase remittances. It is also possible that the transfer allowed temporary migrants to be more productive, therefore sending back additional money.

WFP food and cash rations

Registered households in Kiryandongo refugee settlement receive monthly food or cash aid from WFP. The rations constituted roughly one-quarter (23%) of baseline consumption in 2019. In 2022, after two rounds of reductions to the monthly value of food and cash aid, an average household with nine members would receive about 171,000 UGX (~47.5 USD) per month. 46

Notably, the amount of WFP aid that a household receives scales based on the official household size, as listed in the "attestation card". If a household grows, they have an incentive to add additional members to the attestation card to increase their transfer amount, but there are frictions to doing so. According to one KI [M, IDinsight enumerator], Kiryandongo is closed to new arrivals, and it is not permitted to add new adults to one's attestation card (that formally lists the members in a household). However, some of our qualitative respondents noted that households were able to add new adult members against an informal fee of 200,000 UGX (~55.6 USD). While adding newborn children is permitted and a service that should be free of charge, respondents claimed that local authorities are similarly charging informal fees of 100,000 UGX to 150,000 UGX (27.8 USD to 41.7 USD) to add a child to the attestation card.

If these dynamics are common in the settlement, it is possible that one route through which transfers cause lasting income or consumption effects is through adding additional household members to the attestation card, therefore causing a future increase in food or cash aid from WFP. While we have indications of this dynamic from the qualitative interviews, we are unable to confirm it quantitatively. Although we gathered information on de-facto household size, we did not gather data on the official household size. It is, therefore, unclear if there was an actual quantitative effect of the GiveDirectly transfer on the amount of WFP aid that households receive.

3.5 Mental and Physical Health

3.5.1 Health Care Context

Kiryandongo settlement has public healthcare facilities run by UNHCR and the GoU and doorstep healthcare through Village Health Teams easily accessible by short walks or bodaboda rides. Bweyale town has two government-run hospitals and many private clinics. Overall, most respondents in our qualitative interviews described that healthcare facilities are accessible, but the quality of services is low, especially in public facilities.

 $^{^{45}}$ From June 2020, WFP reduced the monthly distribution to every two months. This means households receive food or cash aid for two months at a time.

⁴⁶ In 2022, households receive 19,000 UGX (~5.28 USD) per registered household member.

Respondents highlighted that public facilities often have drug shortages and refer patients to private clinics, where medications are expensive for many refugees. One respondent [M, SSD, R] noted that personnel at public facilities would "just tell you to go to this and this clinic in Bweyale and buy this medicine from there." And another respondent [F, SSD, R] added that "sometimes you find expired drugs" at public healthcare facilities. Therefore, many refugees were forced to use the GiveDirectly transfer on healthcare that should normally be free or otherwise "just decide to go back home" because "there is no money for medication."

Many refugees described issues of inadequate care and long waiting times at public healthcare facilities, which they attributed to understaffing and a population that is "too big." They may need to "wait even the whole day" to see a healthcare professional. Respondents also expressed issues with receiving the right care for their conditions from public facilities. A few respondents mentioned they were just receiving painkillers or antibiotics without a proper diagnosis and without the prescribed medication changing their condition. Many respondents shared that private clinics are of better quality because they "give very good care" and "work on you fast." However, some felt that private clinics can rush their work "as they are after money" and that some "open drug shops without a license."

More respondents explained that they do not trust healthcare providers compared to those saying they trust them. Drug stockouts in the public facilities lead refugees to question "how you can trust [them]?" Slightly more respondents felt overall treated well and with respect while in care, compared to those that did not feel treated well and respectfully. Specifically, more respondents felt treated well in private facilities and not treated well in public facilities. Respondents mentioned issues with language barriers and "tribal hatred." For example, one respondent [M, SSD, R] described that a doctor "left the patient to suffer until someone came to assist with translation." A KI [F, nurse at a health center within the settlement] described that patients may get harassed and that staff "just ignore them."

Some healthcare services are not available in Kiryandongo or Bweyale town, such as treatments for hepatitis B, sickle cell anemia, cancer, or delivery complications. One respondent [M, SSD, R] added that in "the government hospital in the settlement, there are no serious laboratory services for testing." Some refugees and Ugandans reported issues with the formal referral system and incurred additional transport costs traveling to Gulu or Kampala in Uganda as well as Kenya, India, DRC, or South Sudan for treatment.

3.5.2 Mental Health

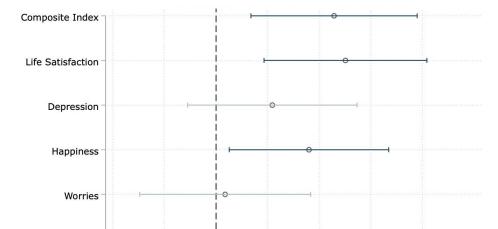


Figure 15: Treatment Effect on Psychological Well-being

Stress

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The psychological well-being index measures depression, stress, happiness, life satisfaction, and worries.⁴⁷ On average, the treatment group at endline scored 0.28 standard deviations (SD) higher on the composite psychological well-being index compared to the control group, which is a meaningful increase and in line with other studies (Figure 15).⁴⁸ The endline effect is also larger than at midline (0.22 SD). The absolute scores of each component suggest that most well-being measures dipped at midline and increased almost back to baseline levels at endline. The drop in psychological well-being in 2020 is likely due to COVID-19 and its related effects on income and health, which were mentioned as the main source of worries in 2020.

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All effects are measured in standard deviations of the control mean

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Using the interpretation guidance provided for each scale and adjusting proportionately to our reduced questionnaire, we find that, despite the positive and significant increase on all scales except worries, both the endline control and treatment groups still show signs of depression (CES-D scale) and moderate stress (Cohen scale).⁴⁹ Overall, life satisfaction is slightly under 50% (treatment = 49.3% and control = 43.4%), and happiness is between "quite happy" and "not very happy", with the treatment group leaning just 0.17 points out of 4 closer to "quite happy."

Overall, the qualitative findings show that negative feelings of stress, worries, or trauma were more common among all respondent groups than feelings of happiness, both in 2020 and 2022. However, feelings of happiness were slightly more common among transfer recipients in 2020 compared to those who had not yet received. Similarly, in 2022, more Ugandan recipients were happier than the non-recipients.

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⁴⁷ Many cash transfer studies use this index to measure psychological well-being, but the scales were originally designed for Western contexts. We caveat that this index may fail to measure crucial nuances in a refugee context such as trauma or context-specific definitions of worries, depression, etc.

⁴⁸ For example, Haushofer & Shapiro (2016).

⁴⁹ Our questionnaire asks only about half of the questions on the CES-D and Cohen scales compared to the original. We adjusted our calculations proportionately. This calculation is an approximation based on the scoring guidelines for each scale and assumes the thresholds can scale to the number of questions asked in our questionnaire. We do not attempt CES-D to make clinical diagnoses. Scoring guidelines used: (Value Options via http://www.valueoptions.com/providers/Education_Center/Provider_Tools/Depression_Screening.pdf); Cohen scale (State of Hampshire Employee Assistance Program https://www.das.nh.gov/wellness/docs/percieved%20stress %20scale.pdf).

In 2020, refugees' most common worry was the COVID-19 pandemic and related lockdown measures, followed by food insecurity, and lack of money. In 2022, theft of the GiveDirectly transfer became the most common worry, followed by violence in the settlement, and lack of money.

Many refugees also expressed concerns about conflicts and "fighting in the settlement," particularly between April and June 2020 when the settlement was affected by intra-tribal conflict. One respondent [M, SSD, R] explained that "policemen were everywhere" and the residents "fought themselves." He recalls seeing "[guns]" and "teargas." In 2022, we heard from a respondent [F, SSD, R] that the fighting in the settlement created "fear" because "seeing them kill each other reminds us of the past."

Refugees also commonly expressed feelings related to trauma and depression. For example, respondents described feeling "tired," "confused," "troubled," or "occupied" in their minds or hearts - for some respondents this results in finding it difficult to focus or concentrate. Some also shared that they feel "depressed," "hopeless," or "angry." For example, a respondent [M, SSD, R] shared that he lost both his parents and "if you lose someone, your mind becomes confused."

Among the few causes for happiness mentioned in 2020, good health of respondents or their relatives as well as positive interactions with family or friends were the most common. Others felt happy because of the GiveDirectly transfer or related investments, a good harvest, or getting some casual work. For Ugandans, the most commonly cited cause for happiness was the GiveDirectly transfer in both 2020 and 2022, followed by good health and a good harvest. Some refugee respondents also mentioned positive feelings from participating in the interview. For example, one [M, SSD, N-R] shared with us that the interviews gave him "hope" and "happiness" because of "the way you people are checking on me."

3.5.3 Health Care Spending and Financing

Transfer recipients spent 2.8 USD (21%) more per month on health expenses as compared to the treatment group. Health care spending was driven by medication expenses, which made up 5% of the increase in total consumption and 58.6% of the increase in health spending. This aligns with the qualitative reports of drug stockouts. In the qualitative interviews, refugee recipients did not initially plan to spend on health care, but it became the second and fourth most common spending category in 2020 and 2022, respectively (Figure 8). However, health spending was not prominent for Ugandan respondents.

One of our KIs [F, nurse in Bweyale town] mentioned that some refugee households received health care on credit to be paid back once they received their GiveDirectly transfer. The facility only offered this agreement to refugees, since they knew they were more likely to be UCT recipients than the Ugandans. One respondent [M, SSD, N-R], for example, told us that if he does not have funds, the clinician sometimes "gives us medicine and then we pay her when we get [the money]." Other, less commonly mentioned, health financing sources include the GiveDirectly transfer, selling assets, the Refugee Law Project, the International Rescue Committee, and sharing costs among the extended family.

3.6 Education

In Kiryandongo settlement, there are six public primary schools operated by UNHCR, three private or community primary schools, and two secondary schools (one private, one public). One of our KIs [M, teacher] expressed that there was "no big difference between government and private schools." However, many refugee respondents thought that private schools offer better facilities compared to public schools. While public schools were "more affordable," refugee respondents highlighted two main challenges:

- 1. High student-teacher ratio: our respondents explained that classes were "overcrowded" with sometimes "even more than 200 [students] in a class."
- Insufficient facilities: there were not enough chairs and desks for the students with "some children sitting on the desks." Additionally, schools lacked other facilities, such as a library or laboratories.

However, some respondents still maintained "one can get a good education" at the public schools. While public education was generally accessible in the settlement and formally free of charge, there were many direct and indirect costs that made education expensive for most refugee and Ugandan respondents. Table 5 illustrates the self-reported fees paid.

We do not find significant results of the cash transfer on overall education spending. The absence of effects may be due to the long school closures; the GoU closed schools for 22 months and only reopened two months before we began endline data collection. Many respondents in the qualitative interviews mentioned education spending as a high priority, but the closure prevented these plans from materializing.

Table 5: Self-Reported School Fees from the Qualitative Sample

Fee category	Amount
Registration Fees	5,000 - 20,000 UGX (1.4 - 5.6 USD)
Exam Fees	10,000 - 25,000 UGX (2.8 - 6.9 USD)
Parent Teacher Association Fees	2,500 - 7,500 UGX (0.7 - 2.1 USD)
School Uniforms and Other Materials	17,000 - 50,000 UGX (4.7 - 13.9 USD)
Public Schools	5,000 - 70,000 UGX per term (1.4 - 19.4 USD)
Boarding Schools	80,000 - 600,000 UGX per term (22.2 - 166.7 USD)
Private Schools	200,000 - 700,000 UGX per term (55.6 - 194.4 USD)

Other barriers to education include long walking distances to schools, rain, and lack of school feeding programs. After walking long distances, students arrive "very tired and picking knowledge becomes very difficult." The rain led to low attendance, and the lack of school feeding programs affected learning capacity. Respondents explained that "hunger tortures [students] physically and psychologically" and makes it difficult to "concentrate" because "their minds are not there."

We found no evidence of a gender gap in enrollment and attendance rates. At endline, 91.4% of girls and 92.9% of boys were enrolled in school, which is almost equivalent to baseline levels. However, one of our KIs [M, teacher] shared that the number of boys was "bigger" than girls and that girls "had babies" and "too many responsibilities." The attendance rate dropped from 3.9 days per week at baseline to 3.4 days at endline (out of 5). The treatment group also had slightly higher attendance than the control group, but the differences were not statistically significant.

The extended school closure due to the COVID-19 pandemic had negative consequences such as student idleness, early marriage, teen pregnancies, and school drop-outs. There was an effort to shift remote learning by offering lessons on TV or radio, but "in the settlement, not everyone can afford TV." Some organizations supplied learning materials but did not provide any follow up, so the students "lost concentration" and "no longer wanted to read." Some refugee respondents discussed traveling back to South Sudan to attend school there. Some respondents worried that those who dropped out turned to crime.

3.7 Gender, Family Relations, and Household Decision-Making

The quantitative data do not show any statistically significant changes in the female empowerment index or differences in treatment effects between genders for all outcomes.

Overall, refugees and Ugandan respondents reported they had positive family relationships; they treat each other respectfully, share responsibilities, and support each other. For men, the most commonly mentioned responsibilities are earning income for the family, gardening ("digging") or looking after livestock, and providing security for the family. For women, the most commonly mentioned responsibilities are childcare, domestic work, gardening (in support of husbands), and financial planning.

About half of the refugee respondents in the qualitative interviews shared negative effects of the GiveDirectly transfer on family relations; the transfer was one of the most commonly mentioned sources of tensions within families across all qualitative rounds and the second-most common negative change that refugee respondents associated with the transfer. However, they mostly spoke about "others" (neighbors, relatives, other community members) or general anecdotes circulating in the community, rather than personal experiences. Payment delays convinced some family members that their spouse received the transfer but had "eaten the money⁵⁰ alone," when in reality "they [GiveDirectly] had not yet given the money." Ugandan respondents rarely mentioned the GiveDirectly transfer as a source of tension. When GiveDirectly hears about conflicts within families, they come "to help them resolve it." In instances where conflicts persist, "GiveDirectly closes that line [stops the transfer] so that they [the family] can resolve the issue."

A few refugee respondents also reported domestic violence due to the GiveDirectly transfer, alcohol abuse, or the COVID-19 lockdown more generally, though respondents only spoke of "other" households. One respondent [M, SSD, R] explained that a woman "did not want to give her husband the money, so the husband picked a panga [machete] and cut her." Another respondent [F, SSD, R] shared that "this Mama ate all the money without giving the son" and that the son then "even beat the Mama very badly until Mama released small money."

⁵⁰ "Eating the money" was a very common phrase used by respondents - it usually referred to someone being thoughtless in how they spend the money, misusing the money, or using it without involving or consulting other household members.

Some households, however, highlighted how the GiveDirectly transfer contributed to improved harmony and family dynamics. One respondent [M, SSD, R] explained that the transfer helped to build "a team to focus on things that can make us not to live as before, a life of understanding." For others, quarrels in the past involved lack of money, but after receiving the transfers, they "no longer have problems." Many respondents also explicitly stated that the GiveDirectly transfer did not contribute to tensions within their own families.⁵¹

The other commonly mentioned cause for tension and conflict within families is related to alcoholism or the misappropriation of family money for alcohol. One respondent [M, SSD, R] explained a common experience that some people "go and use money meant for food on alcohol" and that "this brought a lot of tensions in families."

In the sensitization meetings, GiveDirectly encouraged household heads to discuss transfer utilization plans with the rest of the household. Overall, the majority of respondents reported that decision-making about transfer use was made jointly; they would "sit and discuss" and "agree" as a family what to do with the money. In such households, the families often reported good relations. In most households, women were the OPM-registered head of household and the custodian of the transfers. However, decision-making dynamics may be misreported to maintain joint decision-making optics and, therefore, may not reflect true decision-making power or social norms. We noted five broad categories of household decision-making (with nuanced differences between individual households).

Category 1: Women are the primary decision makers

This category is the most common among our refugee respondents and includes mostly single, female-headed households. One respondent [M, SSD, R] assessed that "women are the ones controlling the GiveDirectly money in most homes." Also, women "are the owners of the [attestation] card, so they decide like that."

Category 2: Joint decision making, but the husband has the final say

Many female refugees were responsible for the transfers because they were "the only adult person in the home." Some reported their spouses had left for South Sudan, but the men (husband and sometimes other male relatives) retain formal power over spending decisions. A respondent [F, SSD, R] shared that "though they talk about it, mostly he (the husband) has the final word," because he is the "head of the household." Similarly, in Ugandan respondent communities, women "respect men to make decisions."

Some refugee females had more control over spending decisions and the husband "always supports" her ideas "as long as they are good." One respondent [F, SSD, R], who was interviewed on behalf of her husband, made decisions but would have to "consult with [her] husband". One respondent [F, SSD, N-R] lives in a polygamous family, and while her household's decisions are independent of those of her co-wife, they can collaborate and outvote their husband in some cases. They said that if they both reject one of his ideas, "he cannot do it."

Category 3: Joint decision making with all (adult) household members

⁵¹ As noted above, with a few exceptions, mentions of tensions or domestic violence usually referred to other households, observed behaviors, or anecdotes circulating within the communities.

In this category, the refugee respondents involved other relatives who live in the household but are non-nuclear family members. For example, one respondent [M, SSD, R] "shared" with his wife and elder brother and they "all agreed" on how to spend the GiveDirectly transfer. Similarly, another respondent [M, SSD, R] mentioned that they "sat as a family with [his] elder sister" and they "agreed as a family." While some of the language he used suggests that there may be power imbalances, he explained that all family members make final spending decisions together.

Category 4: Husband dominates decision making, but may include the wife

All households in this category were Ugandan and male-headed with the wife not living in the same household. The husband makes financial decisions and may "sit as a family," involving his wife (via phone) or children, but their ideas were "disregarded." In other instances, the husband only executed his "own plans."

Category 5: Joint decision making, but the wife has the final say

This category was the least common and only featured in the Ugandan community; households in this category reported good family relations. Two respondents [M, UG, R] shared that their wives had the final say about the transfer spending. One explained that "women are good at keeping money;" however, "she cannot use it without [his] consent." He continued that since his wife is "in charge of the money, she has to accept and decide finally how and what we should do, even if the idea comes from me." Similarly, the other husband felt that his wife's decision is "always final." He further explained that "their plans are always good for the family."

3.8 Self-Reliance

After receiving the transfer, recipients scored 0.13 points higher on the Refugee Self-Reliance Initiative self-reliance index (Figure 16). We asked respondents to rank their sufficiency of a set of "domains," such as adequate housing, amount of food, healthcare quality and access, and debt. The index uses these domains to conceptualize and measure self-reliance. The control group, on average, scored 2.2 and the treatment group, on average, scored 2.3 (out of a possible score of 5). The improvement in self-reliance is driven by having less debt, and smallere, positive increases in employment, housing, and less reliance on assistance.

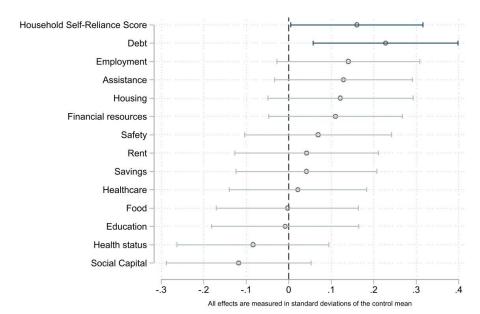


Figure 16: Treatment Effects on Self-Reliance Domains

According to refugee respondents in our qualitative interviews, self-reliance means "not depending" on others, "no longer getting support from any organization," and being "able to provide for family's basic needs." Most of them spoke about getting their "own land" as a means to achieve self-reliance. The majority of refugee respondents described how they depend on aid, especially the WFP food or cash rations. Respondents also mentioned other organizations offering in-kind support, such as farming inputs and education. A KI [M, teacher] mentioned that some refugees have the mentality that the "UN will provide." Other respondents noted that, because of the anticipation of assistance from organizations, "people are spoiled" - they do not go to work and "just wait for support." However, some try to support themselves in addition to the aid. For example, since the WFP food rations are "not enough," refugees look for casual labor opportunities to support themselves. Some spoke of their gratitude for the GiveDirectly transfer and had plans to use the money to reduce their dependence on the UN, while others alluded to their dependence on the transfer. For example, one respondent [F, SSD, R] expressed a concern that GiveDirectly should continue supporting because "we may not be able to manage."

Some respondents expressed that they were not close to being self-reliant because they had "nothing" and many acknowledged that life would be "very difficult" without this support as they "cannot survive" without assistance. Their refugee status "limits what one can do." Others "feel bad" about relying on the help and they would like more opportunities to be self-reliant. One respondent [M, SSD, N-R] suggested that the NGOs should guide and train refugees on self-reliance.

3.9 Social Cohesion

Our findings on social cohesion come from the qualitative study.⁵² We understand social cohesion as "the strength of relationships and the sense of unity in a community" (Hunter et. al, 2011). The meaning of community to both our refugee and Ugandan respondents was closely linked to their tribes, mutual support, living together, and a common purpose or interest.

⁵² We pre-specified social cohesion, safety, and security in the pre-analysis plan as RCT outcomes; due to survey length limitations, however, decided to drop these topics from the endline survey and instead focused on exploring them qualitatively.

We have explored different dimensions of social cohesion:

- a. Neighborhood⁵³ cohesion,
- b. Intra- and inter-tribal cohesion, and
- c. Refugee-host cohesion.

While we find no strong evidence that the GiveDirectly transfer has negatively affected social cohesion in Kiryandongo, it may have exacerbated existing tensions around price discrimination towards refugees and contributed to predjudices such as refugees getting "free money" or being "responsible for inflation." On the other hand, the transfer may have contributed to mutual support among neighbors, who share or borrow money or food.

Respondents described some isolated, sometimes violent, incidents of tension both at the intra- and inter-tribal level. Previous studies of refugee-hosting areas in Uganda found that conflict between communities was mostly tribal (UNICEF, 2018). Among refugees in our qualitative study, there were reports of disputes between different ethnic groups over water and land as well as violent conflicts triggered by inter-tribal romantic relationships. Similarly, a few respondents mentioned that water, land, and firewood occasionally caused tensions between refugee and host communities.

3.9.1 Neighborhood Cohesion

Among refugees, most respondents shared that they were "staying well" with their neighbors, who were often from different tribes. To a few respondents, there was a shared sense of identity as visitors in Uganda; hence they "respect each other," "unite," and "love each other." A few respondents mentioned tensions with their neighbors, usually due to their children fighting. Often, such tensions also overlapped with inter-tribal issues. In the host communities, neighbors also mostly had positive relations; respondents enjoyed "good relations" "without any quarrels or conflict." Few Ugandan respondents shared negative anecdotes about their neighbors.

For both refugees and host communities, mutual support among neighbors was key to social cohesion. Many respondents highlighted that they share food or non-food items such as charcoal or soap with their neighbors as well as lend or borrow money. One respondent [F, SSD, NR] also shared that, when she is struggling, her neighbor offers her work. She said, "you can help me and I also help you." However, the dual external shocks (COVID-19 and aid cuts) and the GiveDirectly transfer seem to have affected the social support fabric in the settlement. Some have reduced their support to others as they had to focus more on their own immediate needs; others have used their available resources (e.g., GiveDirectly transfer) to support others in need. For example, a respondent [F, SSD, R] in cohort 3 helped a neighbor in cohort 4 with 500,000 UGX (139 USD) to repair her leaking house, and "she returned it when she got her transfer." Some recipients who offered support expected reciprocity from the borrowers, if needed. These dynamics may suggest spillovers and anticipation effects in our quantitative data.

Both refugees and Ugandans described the relationships between transfer recipients and non-recipients as mostly positive, and noted "there is nothing wrong." One Ugandan respondent mentioned that non-recipients were "optimistic that their turn would come." Only a few mentioned the transfer caused jealousy. A Ugandan community leader described an incident where recipients were celebrating and "ululating" (a celebratory shout) while traveling to town for shopping, which made others who had not received feel "uncomfortable." Another respondent [M, SSD, R] complained that he was "receiving calls at all times" from people asking for money.

⁵³ The study design meant that people in direct neighborhood to each other may be recipients and non-recipients and we aimed to understand what role the transfer played in these relationships.

Overall, respondents reported that neighborhood relations were mostly positive due to mutual support, and only a few mentioned children's fights. There is no strong indication that the GiveDirectly transfer has negatively affected relationships among neighbors with only a few mentioning that the transfer caused issues such as jealousy. In contrast, some respondents have borrowed or shared parts of their transfer to help others.

3.9.2 Intra-Tribal Cohesion

Findings on intra-tribal relations were mixed. Many refugee respondents described quarrels among people from the same tribe. Quarrels stemmed from historical perceptions and conflicts between clans, jealousy, and marriage or relationships. However, respondents explained that tribal quarrels were isolated, and others lived harmoniously. The Nuer tribe had a major conflict in 2020 that resulted in violence and "brothers killing brothers." This incident caused unrest in the settlement and affected the residents' feeling of safety. A few Ugandan respondents reported conflicts from "simple misunderstandings" and the influence of alcohol. There was no clear connection between the GiveDirectly transfers and the intra-tribal relations.

3.9.3 Inter-Tribal Cohesion

Overall, our findings on inter-tribal relations are mixed, both among Ugandan and refugee communities. According to the respondents, the transfers did not affect the relationships between different tribes.

Among the refugees, many respondents felt that relations are good and have improved over time. Respondents mentioned that they had "fewer arguments and misunderstandings" because "people were now used to each other" compared to when they first arrived in the Kiryandongo settlement. One respondent [F, SSD, NR] said that Kiryandongo settlement "is not like other camps," and that "here, there is more peace and more trust" among refugees. The refugees also mentioned conflict resolution training, community and leadership talks, and police involvement as some of the factors that contributed to better relations. However, many respondents noted incidents of inter-tribal violence during the study period. A few respondents felt there was "no change," because there was "always quarreling and fighting."

Similarly, among Ugandan communities, many respondents described inter-tribal relations as positive. A KI [M, Health Worker] added that inter-marriages happen in the host community, for example, "Acholi marrying Aluru and Aluru marrying Nyankole," which helped build the bonds among the different tribes. However, Ugandan respondents also described inter-tribal tensions. Mostly, these were "minor differences," "disagreements," or "misunderstandings," but sometimes respondents "hear of fights" and especially water and land disputes are "bringing a lot of issues between" Ugandan communities.

Below is a summary of the main reasons for conflicts among both Ugandan and refugee communities:

Historical background: South Sudanese tribes have historical tensions that led to quarrels and fights in the settlement. For example, in 2020, events in South Sudan catalyzed a violent clash between tribes in the settlement that resulted in deaths.

Land disputes: Some host community members feared that previous land owners from a specific tribe may chase them from their land because they lack land titles. Land disputes among refugee respondents related to some tribes "crossing boundaries" and "OPM subdividing land and relocating people." Neighbors also quarreled when one cultivated a portion of the other's land.

Water disputes: Water points are points of interaction between members of different tribes and the location of some disputes. Many respondents explained that arguments started from late-comers, "not following the long line," to fetch water before those waiting. Similar "misunderstandings" could trigger larger, inter-tribal fights; otherwise, disagreements at the water point stem from eruptions of pent-up issues. For example, a respondent [M, SSD, N-R] argued with members of another tribe at a water point because one of them accused his tribe of reporting a fighting case to the police.

Children's fights: One of the most common reasons for conflicts among refugee respondents was children's fights. Parents escalated the fights, for example, by calling fellow tribemates to fight the other tribe.

Marriage or relationship disputes: A few refugees and host respondents talked about "disagreements" caused by inter-tribal dating. One incident among the refugees escalated from a family issue to a tribal one. One respondent [F, SSD, N-R] described that one tribe did not want to pay dowry to people outside their tribe, leading to "serious tensions."

Minor differences: A few refugee respondents talked about arguments from playing or watching football that sometimes escalated to fights. Some Ugandan respondents described fights emerging from smaller, drunken quarrels.

Elders and cluster leaders, neighbors, and the police facilitate conflict resolution for many respondents.

3.9.4 Refugee-Host Cohesion

Overall, many refugee and Ugandan respondents described their relationships with each other as positive and that their relations have improved over time. One respondent [F, UG, R] used the metaphor that "we always eat the same thing with them" to describe their relationship, meaning they get along. However, many respondents also described challenges and some held negative perceptions of the other group.

Refugees and Ugandans often interact casually in public spaces such as markets, water points, schools, and hospitals. However, some Ugandan respondents who lived further from the settlement had no interactions with refugees. The most commonly mentioned interaction between refugees and host communities was trading. Refugees would buy foodstuff from Ugandans in the market, and when refugees get food from WFP, they would sometimes trade with Ugandans. However, some Ugandan respondents [from Panyandoli A] talked about refugees referring to them as "friends" and "great customers." They "enjoyed food and drinks together like brothers and sisters." Refugee respondents often described the relations with Ugandans as harmonious due to the absence of fights and conflicts. They were grateful that Ugandans accepted them in their land and believed that they [Ugandans] benefited from their presence. For example, the refugees are "promoting [buying from] their [Ugandan] businesses."

Respondents rarely mentioned disputes over resources such as land, water, and firewood between refugees and Ugandans. Braak and Kenyi (2018) found that refugees fetching firewood in the neighboring areas caused friction with the host communities. Some refugee respondents in our study described how the Ugandans "chased [them] away" whenever they collected firewood. However, some mentioned they "no longer collect firewood". Conflicts related to water continue to erupt among those who share water points, especially during the "dry spell" when water is scarce. Some respondents mentioned Ugandans prioritized themselves for water use over refugees by claiming ownership of water points, asking refugees to pay, or skipping queues. A few respondents mentioned that Ugandans encroach on land designated for refugees, causing disputes. Similarly, host community members allegedly attacked refugees who had cultivated or used land without the owner's permission.

There is no strong evidence of the GiveDirectly transfer positively or negatively affecting social cohesion between refugee and host communities. However, the transfer may have exacerbated existing tensions around price discrimination towards refugees and the perception among Ugandans that refugees "have money." Ugandans "increased the prices of goods consistently" and "overcharged" the refugees. One Ugandan KI [M, Businessman] confirmed such perceptions and instances of price discrimination. One respondent [F, SSD, N-R] shared that "whenever they [Ugandans] see someone with money and is from South Sudan, they think that every South Sudanese has money, but there are those who are well off with lots of money, there are those who are somewhat rich and then those who are totally poor." Another respondent [F, SSD, R], interpreted being overcharged as Ugandans "chasing them [refugees] out of their country."

Other perceptions among the refugees and Ugandan respondents included:

Fairness concerns: Some host respondents believed that the refugees "are always given free money" and they benefit from the aid given by other organizations in the settlement. Even when such benefits are extended to the host communities, "they [refugees] are always the first to receive". The refugees, on the other hand, complained that Ugandans had better employment opportunities while also benefiting from the refugees' aid. For example, one respondent [F, SSD, N-R] mentioned "Ugandans work with WFP serving our food", even though "we [refugees] have our educated children, [too]."

Prejudice: Some respondents, both Ugandans and refugees, felt that the other had something against them. For example, some host respondents believed that "refugees are responsible for inflation". One respondent [F, UG, N-R] explained, "the refugees have caused us hunger and starvation because the prices of items are really high." A few refugees also believed that the Ugandans may have contributed to WFP aid cuts and GiveDirectly's suspension in 2020. Some Ugandans also perceived refugees as "violent" and thought they "like fighting". One of the KIs [M, teacher] commented, "Ugandans try not to segregate the refugees, but they put themselves at a distance and are always very harsh."

Refugee-host relations improved over time and incidents of conflict became less frequent. A respondent [M, UG, N-R] recalled that "we used to have a lot of misunderstanding caused by the language barrier, but now the majority of them know some local languages like Luo, Acholi and Kiswahili, making it easier to communicate." Another respondent [M, UG, R] remembered strong boundaries between some specific tribes: "they didn't want us to cross to their land and they also didn't want us to marry or date their girls." One respondent [M, UG, N-R] thought the relationship was good, "these people [refugees] are even now building here at our place [Panyandoli B]." Supporting the narratives from both refugee and host respondents, KIs describe—the relationship of people in Bweyale town as positive. They also noted a recent improvement in the refugee-host relationship. They do business together, students at school relate better, and overall, "people are living in harmony."

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⁵⁴ The treatment effect on "Land Value (Within District but Outside Settlement)" is 49.7 USD and on "House Value (Within District but Outside Settlement)" is 65.3 USD - both are not statistically significant.

3.10 Safety and Security

Overall, most refugee and Ugandan respondents felt that the settlement was safe and secure. Many Ugandan respondents mentioned it was safe to go to the market or garden, as there had been no problems. Similarly, almost half of the refugee respondents found it safe to go to the market and let children go to school, as there was "nothing to worry about" and "no threats." Among the refugees, the sense of safety improved in 2022 compared to 2020 when violent inter-tribal conflicts were rampant.

While overall uncommon, some respondents did report security incidents, primarily theft. The most commonly mentioned type of theft was livestock and poultry theft which was prevalent in both refugee and host communities. This was followed by theft of household items (such as food, utensils, clothes, and mattresses), followed by theft of money. Other stolen items were phones, solar panels, building materials, bicycles, and motorcycles. Most cases of theft did not involve violence. There were only a few cases where the thief "attacked" or "beat" the victims. Other security concerns included robberies, witchcraft, and threats of kidnapping.

About a third of the qualitative respondents directly experienced a security incident in their household. All other reports were hearsay or direct observations in the neighborhood or community. Refugee respondents felt the COVID-19 lockdown and lack of work "brought a lot of thefts." Among the Ugandan communities, there was a perception that theft in the neighborhood could have resulted from poverty. When narrating personal experiences of theft, more victims were recipients than non-recipients. To echo that non-recipients were less likely to be the victims, a respondent [M, UG, N-R] mentioned: "Personally, I feel that we are safe here. When you are poor and don't have anything to attract thieves, there is no worry." Lastly, some respondents, KIs, and community leaders suggested that the market "centers" were more "unsafe."

In 2022, more than half of the respondents reported that, while still present, theft reduced in the last two years. The number of incidents of theft reduced and host community leadership successfully handled reported cases, such as overnight police patrols. It was common among both refugee and Ugandan respondents to handle thieves themselves. One respondent [F, UG, N-R] shared that "here we don't trust in the police because the police release these thieves" and that "the best way of dealing with thieves is to kill them." A respondent [F, UG, N-R] added, "nowadays there are fewer theft issues because when you are caught, you will be killed automatically."

Refugees viewed police more positively. In 2020, some viewed them as a threat since they were violent in enforcing the COVID-19 lockdown and associated restrictions. One respondent [F, SSD, R], for example, found "police beating people up and down [as] they did not want people to be in town, especially during evening hours." There were also many reports of corruption and illicit payments involving police officers. However, in 2022, there was only one mentioned case of police "beating" people; overall, the respondents were content with the police as contributors to safety.

Despite improvements in security in the past years, respondents remain cautious and "avoid displaying property" or "exposing that you have too much money." Some use dogs as security, ensure someone is home during the day, hire a security quard, or buy padlocks for businesses.

We found limited evidence of the GiveDirectly transfer directly affecting safety or security. As mentioned earlier, some respondents thought that transfer recipients were more likely to be victims of theft. Indeed, in 2022, theft of the GiveDirectly transfer was the most common worry among recipients. A few respondents experienced fraud attempts. For example, one refugee respondent reported that she and her neighbor were called by "conmen" who were trying to steal the transfers; but she added: "nowadays we don't experience that." While these are some examples of security worries brought on by the transfer, we found these to be isolated incidents. Other respondents felt generally safe with GiveDirectly's cash transfers, which were sent directly to their phones so "nobody can know you have gotten your transfer unless you disclose." One respondent [M, UG, R] was also not worried as he was "keeping money at home and only withdrawing what he needed."

3.12 Hopes and Aspirations

One mechanism by which transfers may have longer-term effects on recipients is by changing their vision of what is possible: in other words, altering their hopes and aspirations. Some respondents directly acknowledged that "GiveDirectly gave us hope," and for others, their aspirations were linked to what they would achieve using their transfers. Apart from the transfers, the respondents relied on faith and hard work as their source of hope for the future.

Refugee respondents mostly held hopes and aspirations beyond the individual but for the entire household. Some respondents felt that with the cash transfers from GiveDirectly, they could help their children "succeed in their dreams." They envisioned a better future for children by way of education. One respondent [F, SSD, R] "would like to see [her children] having Ph.D.s one day." A few respondents noted that education would allow children to "get jobs" and "get paid more" so that they can "take care of the family," "lift the standard of the home," and "make the home grow." A few refugee respondents hoped and prayed for peace in South Sudan, and a respondent [F, SSD, N-R] felt that education is important because "if [South Sudan] is in peace, then our gun will be a pen."

Additionally, some respondents aspired to improve their status and recognition in their community through education. For example, one respondent [F, SSD, R] wanted others to say that "this woman struggled [worked hard] to pay her children in school" and that her children now "are nurses, doctors, and drivers."

For some respondents, a better future meant higher socio-economic status, wealth, and self-reliance. Some respondents had great aspirations for their businesses. One respondent [F, SSD, R], for example, would like to leverage GiveDirectly's transfer to accumulate productive assets, train people (including her children), and earn money, achieving her "dream" and "getting everything for [her] family." Similarly, another respondent's [M, SSD, R] priority for the next five years is to expand on agriculture practice to take "good care of [his] family, neighbors, and everybody who is at home here." Others aspired to have their "own home" and other assets such as land and cars.

The perceived pathways to a better future were business ownership, employment, and education. They were also the primary spending categories for recipients' transfer utilization plans.

A few refugee respondents had other hopes, such as improving the social hierarchy in their community and obtaining a better sense of respect and well-being. They hoped to achieve these goals through hard work and fulfilling their plans with the transfers. Those who ranked themselves low hoped that through faith, hard work, and keeping healthy, they would rise to the middle of the "social hierarchy ladder."

Past life experiences affected respondents' capacity to hope for a better future. Although most respondents had "high hopes" and felt "positive about the future", a few were more desperate and had "no hope". For example, a respondent [M, SSD, N-R] believed his home country "spoiled his future" by not providing him the education he needed and letting him grow up as an orphan. A respondent [M, SSD, R] added that the displacement from South Sudan "weakened him." A respondent [F, SSD, N-R] had no hope because she was poor and "had nothing" to propel her to the next level.

Other respondents talked about non-materialistic aspirations such as peace of mind, peace in South Sudan, family reunion, and for their children to be "responsible", "God-fearing", and have good future families. Some refugee respondents hoped that if peace were restored in South Sudan, people could "go back home, and have normal daily life." However, others did not believe South Sudan would have long-lasting peace and hence had no hope of returning.

3.13 Limitations

3.13.1 Spillover Effects

Respondents in our control and treatment samples belong to the same settlement; hence, interaction or general equilibrium effects on the local economy may have created spillover effects (Egger et al., 2021). The research design does not allow us to investigate these effects directly, as we do not have a sample from an untreated settlement. However, we can try to investigate the presence of some of these mechanisms by exploring potential avenues that may have been affected if spillover effects exist.

Potential avenues for spillover effects include:

- 1. Direct transfers from treatment to control (e.g., through loans or remittances within the settlement),
- 2. Price effects (e.g., inflation, price discrimination),
- 3. Labor market effects (e.g., people in the treatment group hiring those in the control group), or
- 4. Households merging or intermarrying (e.g., a control household merging with a treatment household since baseline).

We find the control group is more likely to draw loans from people within the settlement; however, it is not clear in which direction it would bias the treatment effects. If recipients were already borrowing from each other pre-transfer, a cash transfer to the treatment group can reduce their dependence on the control group for loans, thereby reducing the income through interests, and consequently biasing the estimates upwards. However, it can also increase the borrowing of the control group (from treatment), increasing their consumption and biasing our estimates downwards. For example, one of the qualitative respondents said he witnessed "borrowing money from others while waiting for yours to pay back." However, since our point estimates on loans are small (10.4 USD), the net spillover effects in either direction would be minimal.

We also explored if the increased enterprise ownership of the treatment group led to an increase in employment of the control group. This would likely lead to our estimates being downward-biased since employment would be a positive effect of the transfer experienced by the control group. Since measuring an absolute increase from baseline may be misleading (given the external shock of COVID-19), we look at the proportion of employees being hired in the firms operated by the treatment group. Only 12.2% of firms hire someone outside their household on a salary. This indicates that this channel also would have had a very limited scope on biasing our estimates.

Finally, there can be general equilibrium effects affecting prices in the local economy, reducing the purchasing power of the control group and biasing our estimates upwards. We, unfortunately, have no quantitative means of testing whether this happened, though our qualitative interviews suggest that some price increases may have been driven by the GiveDirectly transfer. Many qualitative respondents shared experiences of "price discrimination" where Ugandans charge refugees extra. Other respondents thought that the transfer affected prices due to increased demand or a higher willingness to pay.

3.13.2 Compromised Randomization

As mentioned earlier, we believe that our public randomization was partially compromised, with more people in cohorts 1 and 2 than is possible by chance. This caused our sample to be imbalanced on some key characteristics, specifically ethnic groups. We have dealt with this by including baseline controls for ethnicity as well as controls for baseline values of our outcome variables. Unfortunately, there may still be some residual bias.

3.13.3 Currency Conversions

Respondents varied in reporting answers in South Sudanese Pounds (SSP), Ugandan Shillings (UGX), and United States Dollars (USD). Enumerators initially input the values in the currency noted by respondents and noted when the values were not in UGX. Partially through data collection, we instructed enumerators to convert values reported in SSP or USD on the spot, so that the final values in the data collection software were in UGX. We gave uniform exchange rates to all enumerators but are not certain that every enumerator correctly converted the currencies on the spot. We ran data quality checks to extract trends in individual surveys that looked like they were converted incorrectly or not at all and verified the correct values with enumerators when possible. We also heard from our Senior Enumerator and in the enumerator comments that some surveys were left in a different currency or used a different exchange rate, and we manually corrected those surveys. We had hypothesized that such currency conversions may have led to the unexpected, large increase in land values in South Sudan; however, if these values were left in SSP, we would expect to see unusually small values rather than large.

3.13.4 Timing of Transfers

Most of the transfers (80%) were distributed between February and July 2020. However, some households in our treatment sample received the transfer in 2022. This makes interpreting our results difficult. However, we feel relatively confident that our results do reflect medium-term effects of cash transfers, rather than being driven by households who received transfers shortly before the endline survey. This is because our results hold even when we drop households who received transfers in 2022.

3.14 Generalizability

Within the context of Uganda's refugee policies, it appears plausible that some of the findings - such as the effects on home improvements and food consumption - would replicate in other settlements within Uganda. Similarly, the effects on business ownership and revenue are mostly driven by small, informal businesses like roadside stalls or kiosks catering to demands within the settlement. It seems reasonable to expect similar investments in other refugee settlements in Uganda. However, Kiryandongo is located directly adjacent to the district's trading center Bweyale town and the Gulu-Kampala highway easing access to markets and supply chains. Few settlements in Uganda provide such enabling conditions.

Overall, findings of this study are consistent with other studies in non-refugee contexts. However, in other country contexts, the given policy environment may limit the extent to which investments into housing, land, or businesses are possible. Furthermore, this study focuses on a context of protracted displacement as opposed to immediate emergency situations that likely present different needs (see Doocy & Tappis, 2016). Lastly, the dual shock of COVID-19 and WFP aid cuts affected our findings. Investment decisions and effects in "normal" times may be different.

4. Conclusion

This study showed that GiveDirectly's large, one-time UCT to refugees in Kiryandongo settlement improved households' economic and psychological well-being in the context of the dual, external shocks of COVID-19 and WFP aid cuts. Recipients increased their household consumption, driven by greater food consumption. The value of their assets experienced a large increase driven by home improvements and land values (though we caution against a face-value interpretation of land value changes). Transfer recipients noted home construction and improvements – such as installing a metal roof or constructing additional rooms – as the most notable improvement to their lives. These different elements contributed to recipients experiencing improved psychological well-being compared to control households. The transfer also increased the self-reliance of recipients compared to those who had not yet received the transfer, largely due to home improvements and decreases in debt.

Increased household consumption appears to be driven by a couple of sources. First, recipients are more likely to start businesses and have increased business revenue compared to not-yet-to-receive recipients. Second, they receive more remittances (though we do not see an impact on household members migrating).

While many recipients planned to spend the transfer on education expenses, the COVID-19 pandemic and related school closures led them to focus on more immediate needs such as food consumption. We did not find any evidence of an effect of the transfer on female empowerment or food security. The Ugandan recipients (from whom we collected qualitative data only) reported benefitting from the transfer in many similar ways as refugees but more commonly invested in agriculture.

The results are sustained over a relatively long time horizon (19 months) and we see effects on investments in durable assets such as housing as well as in businesses, which may lead to lasting revenue increases. However, this study does not test the effects of the GiveDirectly cash transfer beyond two years and future studies may need to further explore the long-term sustainability of the transfer investments and effects.

While our findings on social cohesion between Ugandans and refugees as well as among different ethnicities are overall mixed, we find no strong evidence that the GiveDirectly transfer improved or worsened social cohesion. However, the transfer may have contributed to conflicts within families and exacerbated some existing predjudices and tensions between refugees and Ugandans, especially concerning price discrimination towards refugees. It may also have helped neighbors to extend support to each other during difficult times in sharing or borrowing money or in-kind resources such as food. Furthermore, we noted some grievances or jealousy between transfer recipients and non-recipients; many Ugandans from villages not selected to receive the transfer expressed hope that they would benefit in the future.

We hypothesize that, in other refugee contexts within Uganda, we may see similar outcomes in home improvements, food consumption, and business investment since refugees have freedom of movement and are not formally restricted from employment and entrepreneurship. However, the Kiryandongo settlement is close to the Gulu-Kampala highway and the Bweyale trading center, which may facilitate access to markets and supply chains. It is difficult to predict the replicability of findings in other policy contexts outside of Uganda, in contexts of emergency crisis response, and in the absence of the dual shocks.

In sum, the GiveDirectly transfer enabled refugees to establish larger and more durable homes, invest in land, consume more preferred foods, purchase medications, and improve mental health. Though Kiryandongo is a unique context for the GiveDirectly program due to its stability, proximity to markets, and fertile land, this study may motivate practitioners and policymakers to consider large cash transfers as a mechanism for poverty alleviation in other areas of protracted displacement.

5. Appendix

Figure 17: Information Sheet Provided to Transfer Recipients for Transfer Use Nudges



Table 6: Endline Sample Balance on Baseline Sample

		Sample Not Reached		Endline Sample Reached	Difference
	N	Mean/SD (1)	N	Mean/SD (2)	(1)-(2)
Gender of Household Head	174	0.747	1090	0.736	0.011
		[0.436]		[0.441]	
Household Head Has at Least Secondary Education	174	0.431	1090	0.320	0.111***
Coocinally Laucation		[0.497]		[0.467]	
Household Size	174	8.856	1090	8.851	0.005
		[4.768]		[4.084]	
Time in Settlement	174	1766.753	1090	2169.537	-402.784**
		[1299.435]		[2017.006]	
Ethnic Acholi / Luo	174	0.109	1090	0.209	-0.100***
		[0.313]		[0.407]	
Ethnic Dinka	174	0.098	1090	0.247	-0.149***
		[0.298]		[0.431]	
Ethnic Nuer	174	0.379	1090	0.196	0.183***
		[0.487]		[0.397]	
Ethnic Bari (Mundavi, Kuku, Kakwa, Pajulu, Nyangwara)	174	0.149	1090	0.129	0.020
Kakwa, rajala, riyaligwala,		[0.358]		[0.336]	
Other Ethnicities	174	0.264	1090	0.218	0.046
		[0.442]		[0.413]	
Total Monthly Consumption Expenditure, USD	174	381.410	1090	330.939	50.471***
expenditure, 03D		[282.725]		[214.770]	
Total Assets, Net of loans, USD	174	61.404	1090	63.004	-1.601
		[183.320]		[223.753]	
Total Monthly Business Revenue, USD	174	19.102	1090	16.737	2.365
Revenue, OSD		[56.871]		[54.221]	
Psychology Well-Being Index	174	0.095	1090	-0.015	0.110
		[1.018]		[0.997]	
Female Empowerment Index	156	-0.063	995	0.010	-0.073
		[1.027]		[0.996]	
Non-Ag Enterprise Ownership	174	0.218	1089	0.185	0.034
		[0.414]		[0.388]	
Share of Respondents Employed	173	0.416	1070	0.447	-0.031
Linployed		[0.494]		[0.497]	
Dependency Ratio	174	0.464	1090	0.496	-0.032*
		[0.217]		[0.217]	

The value displayed for t-tests are the differences in the means across the groups.

***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

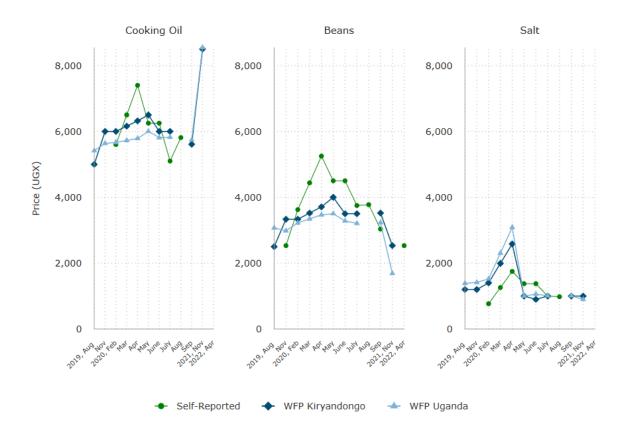
Figure 7: Survey Sections in Baseline, Midline, and Endline Questionnaire

Survey Section	Baseline	Midline	Endline
Consumption (Food)			
Consumption (Non-Food)			
Assets			
Loans, Savings, Remittances			
Agricultural Revenue			
Business Revenue & Employment Status & Business Ownership			
Psychological Well-Being			
Food Security			
Migration & Household Composition			
Safety and Security			
Social Cohesion			
Time Use			
COVID-19 Knowledge, Attitudes, Behavior, and Health			
Gender-Based Violence/Conflict			
Self-Reliance Index			
Aid Dependency			
Education			

Table 8: Interview Topics in Qualitative Survey per Round

Interview round	1) "Refugee recipients" (Cohort 3) 2) "Ugandan recipients"	"Refugee non-recipients" (Cohort 12)				
Round 1	Plans on transfer utilization and decision-making	Community relations within the settlement				
	Shortened baseline survey	Shortened baseline survey				
Round 2	Community relations within the settlement	Refugee - host relations				
Round 2	Household decision-making	Market environment				
Round 3: Interview 1	Market en	vironment				
Round 3: Interview 2	(Plans of) transfer utilization and decision-making	Plans of transfer utilization and decision-making				
Round 3: Interview 3	Psychologic	al well-being				
Round 4: Interview 1	Loans, remittances & savings/ coping strategies					
Round 4: Interview 2	Hea	alth				
Round 4: Interview 3	Social cohesion an	d safety & security				
Round 5: Interview 1	Market en	vironment				
Round 5: Interview 2	Educ	ation				
Round 5: Interview 3	Decision-making a	nd family dynamics				
Round 6: Interview 1	Social cohesion an	d safety & security				
Round 6: Interview 2	Psychologic	al well-being				
Round 6: Interview 3	Migration, unintended consec	quences, market environment				
Round 7: Interview 1	Hope, aspirations, SES, dignity,	aid dependency, & self-reliance				
	Transfer Impact	Transfer Utilization				
	Social c	ohesion				
Round 8	Safety &	security				
	Cash transfers vs.	other forms of aid				
	Perceived fairness and dignity					

Figure 18: Average, Self-Reported and WFP Prices for Selected Food Items from 2019 to 2022



Source: World Food Programme & Reach, Market Monitor – Refugee Hosting Areas (2019 through 2022)

Table 9: Breakdown of the Treatment Effect on Consumption

Control Mean	Control SD	Treatment Effect	Standard Error	N
296.864	213.085	32.349***	12.207	1,090
159.853	119.324	21.119***	7.019	1,090
0.693	3.545	0.517**	0.250	1,090
13.204	16.769	3.105**	1.198	1,090
32.559	44.701	-0.538	2.473	1,090
7.362	25.926	2.794*	1.606	1,090
7.484	10.050	1.381**	0.648	1,083
	Mean 296.864 159.853 0.693 13.204 32.559 7.362	Mean Control SD 296.864 213.085 159.853 119.324 0.693 3.545 13.204 16.769 32.559 44.701 7.362 25.926	Mean Control SD Effect 296.864 213.085 32.349*** 159.853 119.324 21.119*** 0.693 3.545 0.517** 13.204 16.769 3.105** 32.559 44.701 -0.538 7.362 25.926 2.794*	Mean Control SD Effect Error 296.864 213.085 32.349*** 12.207 159.853 119.324 21.119*** 7.019 0.693 3.545 0.517** 0.250 13.204 16.769 3.105** 1.198 32.559 44.701 -0.538 2.473 7.362 25.926 2.794* 1.606

All currency values reported in USD and winsorized at 99%. All regressions control for 99% winsorized value of total consumption at baseline, household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy. Robust standard errors reported in parentheses

Table 10: Breakdown of the Treatment Effect on Assets

Dependent Variable	Control Mean	Control SD	Treatment Effect	Standard Error	N
Net Assets	2286.291	5518.895	1385.909***	419.085	1,090
Net Assets (Excluding House and Land)	322.833	504.614	90.384***	32.324	1,090
Land Value	846.315	3194.446	807.565***	245.444	1,090
Number of Plots	0.348	0.614	0.118***	0.041	1,090
House Value	1033.428	2887.303	488.120**	197.097	1,090
Number of Houses	1.753	1.535	0.218**	0.095	1,090
Number of Rooms per House	1.691	1.024	0.147*	0.076	822
Amount of Outstanding Debt	36.688	78.560	2.091	5.100	1,090
Number of Loans	0.620	0.894	-0.052	0.051	1,090
Amount of Loans Made to Others	8.858	39.662	10.258***	3.229	1,090
Net Debt	22.604	105.458	-12.371	8.006	1,090
Savings	37.809	107.893	23.665***	7.908	1,090
Household Assets	173.293	217.115	49.544***	14.076	1,090
Motorcycle	21.744	119.636	9.438	7.987	1,090
Farming Tools (Hoes/Pangas/Slashers)	5.808	6.907	0.543	0.403	1,090
Livestock	27.905	85.807	-1.294	5.288	1,090

All currency values reported in USD and winsorized at 99%. All regressions control for 99% winsorized value of total net assets at baseline, household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy. Robust standard errors reported in parentheses

Table 11: Breakdown of the Treatment Effect on Sources of Revenue

Dependent Variable	Control Mean	Control SD	Treatment Effect	Standard Error	N
Total Monthly Business Revenue	22.290	77.059	14.261***	5.436	1,083
Remittance Income	19.622	58.965	12.285***	4.194	1,083
Remittance Expenditure	6.694	21.104	-0.230	1.264	1,083
Monthly Revenue from Own Produce	0.678	2.385	0.124	0.158	1,083
Business Ownership	0.218	0.413	0.081***	0.026	1,081
Business Started	0.143	0.350	0.049**	0.023	1,081
Business Closed	0.088	0.284	-0.009	0.018	1,081
Respondent Employed	0.479	0.500	0.038	0.029	1,059
Respondent Self-Employed	0.322	0.468	0.017	0.027	1,059
Respondent Salaried	0.190	0.393	0.016	0.024	1,082

All currency values reported in USD and winsorized at 99%. The revenue variables control for total revenue at baseline (winsorized at 99%), whereas the enterprise ownership/start and exit variables along with the employment variables control for enterprise ownership at baseline. All regressions additionally control for household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy. Robust standard errors reported in parentheses.

Table 12: Breakdown of the Treatment Effect on Types of Businesses Owned

	Control		Treatment	Standard	
Dependent Variable	Mean	Control SD	Effect	Error	N
Business Ownership	0.220	0.414	0.082***	0.025	1,088
Business Started	0.144	0.352	0.061***	0.022	1,088
Business Closed	0.088	0.284	-0.020	0.013	1,088
Owns a Retail Shop/Kiosk/Sells Groundnut Paste	0.049	0.216	0.044***	0.016	1,088
Is a Brewer	0.004	0.061	0.013**	0.006	1,088
Resale of Food Items (Prepared/Raw)/Fish	0.079	0.270	0.020	0.017	1,088
Provides Services (Butcher/Carpenter/Tailor etc.)	0.051	0.220	0.017	0.014	1,088
All Other Businesses (Sell Crafts/Shoes, Make Bricks etc.)	0.058	0.234	0.015	0.015	1,088

All regressions control for enterprise ownership at baseline, household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy. Variable mean and standard deviation for the control group reported in columns (1) and (2). Column (3) gives the treatment effect, and heterorobust standard errors reported in column (4). Column (5) gives the number of observation for each regression

Table 13: Treatment Effect on Each Psychological Well-Being Index Component

Dependent Variable	Control Mean	Control SD	Treatment Effect	Standard Error	N
Psychological Well-Being Index	0.000	1.000	0.278***	0.083	558
CES-D Scale (Depression)	2.657	0.572	0.085*	0.048	558
Cohen's Stress Scale	2.773	0.798	0.232***	0.065	558
Worries Scale	1.796	0.639	0.026	0.054	558
Happiness (WVS)	2.433	0.851	0.185***	0.068	558
Satisfaction (WVS)	4.336	2.265	0.644***	0.184	557

All regressions control for household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy. Robust standard errors reported in parentheses

Table 14: Treatment Effect on Migration Measures

Dependent Variable	Control Mean	Control SD	Treatment Effect	Standard Error	N
Household Left Settlement	0.028	0.166	-0.000	0.008	1,089
Household Members Moved Out of Settlement	1.073	1.950	0.055	0.113	1,090
Household Members moved Into Settlement	1.000	1.998	-0.047	0.110	1,090
Net Household Members Moved Out of Settlement	0.073	2.433	0.101	0.147	1,090
Household Dependency Ratio	0.405	0.189	0.006	0.011	1,090

All regressions control for household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy. Robust standard errors reported in parentheses

Table 15: Treatment Effect on Female Empowerment Measures

Dependent Variable	Control Mean	Control SD	Treatment Effect	Standard Error	N
Female Empowerment Index	0.000	1.000	-0.031	0.062	1,011
Proportion of Time Away from Household Care	0.750	0.170	-0.011	0.011	880
Percent of Girls Enrolled in School	0.920	0.231	-0.013	0.016	888
Number of School Days Not Missed by Girls	3.724	1.668	0.168	0.106	888
Percent of Boys Enrolled in School	0.927	0.224	0.002	0.015	922
Number of School Days Not Missed by Boys	3.888	1.556	0.148	0.100	922

All regressions control for household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy. Robust standard errors reported in parentheses

Table 16: Treatment Effect on Food Security Index Components

Dependent Variable	Control Mean	Control SD	Treatment Effect	Standard Error	N
Food Security Index	-0.000	1.000	0.093	0.079	536
Share of Food in Consumption	0.564	0.163	0.005	0.010	1,090
Number of Days Adults Did Not Cut Food	-2.656	2.962	0.317	0.253	535
Number of Days Children Did Not Cut Food	-2.189	3.076	0.728	0.484	132
Number of Days Children Had No Meal	-0.679	1.848	-0.233	0.313	132
Number of Days Adult Had No Meal	-1.665	2.299	0.197	0.170	536
Number of Days Members Did Not Eat Cheap/Less Preferred Food	-2.784	2.774	-0.034	0.231	535
Number of Days Members Did Not Have to Borrow Food	-1.133	1.927	0.012	0.152	534
Number of Days Members Did Not Have to Take Credit for Food	-0.916	1.561	-0.196	0.152	536
Number of Days Members Did Not Have to Hunt for Food	-0.884	2.025	0.097	0.157	534
Number of Days Members Did Not Have to Rely on Seed Stock for Food	-1.259	2.026	0.292*	0.168	536
Number of Days Members Did Not Have to Go Outside due to Less Food in the House	-0.339	1.312	-0.011	0.097	536
Number of Days Members Did Not Have to Go Beg for Food	-0.582	1.525	0.095	0.112	536
Number of Days Respondent Did Not Have to Go to Bed Hungry	-1.402	2.117	0.078	0.154	536
Percent of Children Eating Protein	0.616	0.410	-0.002	0.074	132
Percent of Adults Eating Protein	0.456	0.382	0.050	0.033	535
Members Eat 2 Meals a Day Regularly	0.602	0.491	0.003	0.043	536
Members Eat Until Content Every Day	0.590	0.493	0.104**	0.040	536
Enough Food in the House	0.669	0.471	0.088**	0.039	536
Number of Days Respondent Ate Protein	1.327	1.447	0.132	0.121	536

Children are defined as those less than the age of 14. Consumption of protein is measured as eating meat, eggs or fish. All regressions control for household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy. Robust standard errors reported in parentheses

Table 17: Treatment Effect on Self-Reliance Index Components

Dependent Variable	Control Mean	Control SD	Treatment Effect	Standard Error	N	
Household Self Reliance Score	2.209	0.778	0.125**	0.062	531	
On Step 3 or Higher of Being Self-Reliant (Today)	0.385	0.488	0.079*	0.044	531	
On Step 3 or Higher of Being Self-Reliant (in 3 Months)	0.654	0.477	0.075*	0.041	531	
Adequate Housing	0.167	0.374	0.081**	0.035	531	
Able to Make Rent	0.043	0.203	-0.017	0.016	531	
All Members Ate 2-3 Meals	0.432	0.496	0.002	0.043	531	
All School Aged-Children in School	0.669	0.471	-0.002	0.041	531	
Received Proper Healthcare	0.210	0.408	0.027	0.037	531	
All Members in Good Health	0.693	0.462	-0.018	0.041	531	
Feel Safe	0.175	0.381	0.023	0.034	531	
Income Through Stable Employment	0.012	0.108	0.021	0.013	531	
Good Financial Health	0.179	0.384	0.042	0.033	531	
Didn't take Assistance	0.233	0.424	0.084**	0.038	531	
No Debt	0.354	0.479	0.134***	0.042	531	
Enough Savings for One Month	0.097	0.297	0.011	0.027	531	
Has People Willing to Lend Money	0.393	0.489	-0.036	0.043	531	
Has People Giving Advice	0.518	0.501	-0.054	0.044	531	

All regressions control for household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy.

Table 18: All Outcomes by Gender

Male				Female				Difference					
Dependent Variable	Control Mean	Control SD	Treatment Effect	Standard Error	P-Value [FWER adjusted]	Control Mean	Control SD	Treatment Effect	Standard Error	P-Value [FWER adjusted]	Difference (F-M)	P-Value	N
Total Monthly Consumption Expenditure USD	269.488	186.361	57.002**	23.074	0.014 [0.041]	306.035	220.774	23.637	14.478	[0.103] 0.106	-30.304	0.248	1,090
Total Assets, Net of Loans USD	3226.087	6919.842	486.974	886.331	0.583 [0.588]	1971.460	4932.533	1695.263***	481.618	[0.000] 0.001	1159.878	0.234	1,090
Total Monthly Business Revenue USD	32.803	104.370	10.362	12.775	0.418 [0.588]	18.760	65.173	16.020***	5.863	[0.006] 0.013	5.571	0.681	1,083
Food Security Index	0.140	1.099	0.062	0.166	0.707	-0.050	0.960	0.106	0.088	0.226	0.095	0.609	536
Female Empowerment Index	0.123	1.096	-0.038	0.142	0.788	-0.032	0.972	-0.033	0.069	0.631	-0.002	0.990	1,011
Business Ownership	0.261	0.441	0.067	0.053	0.209	0.206	0.405	0.092***	0.029	0.002	0.035	0.561	1,088
Respondent Employed	0.561	0.498	0.007	0.056	0.905	0.450	0.498	0.051	0.034	0.135	0.045	0.485	1,066
Household Size (Endline)	8.381	4.122	0.290	0.347	0.404	9.805	4.632	-0.106	0.210	0.612	-0.423	0.289	1,090
Dependency Ratio	0.328	0.207	0.019	0.023	0.409	0.431	0.175	0.004	0.013	0.753	-0.016	0.548	1,090
Household Self Reliance Score	2.437	0.760	0.029	0.117	0.806	2.116	0.768	0.173**	0.073	0.018	0.191	0.154	531
Psychological Well-Being Index	0.230	0.960	0.173	0.170	0.312	-0.064	1.004	0.301***	0.095	0.002	0.103	0.599	558
Migration (Net Number of Household Members Who Left Settlement)	0.030	2.406	0.044	0.266	0.868	0.087	2.445	0.114	0.177	0.520	0.095	0.764	1,090

All currency values reported in USD and winsorized at 99%. All regressions control for household size, sex of head of the household, time lived in settlement, ethnic group of the household and a phone survey dummy. Robust standard errors reported in parentheses. FWER-adjusted p-values reported in brackets.

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