Mathematica®
Progress Together

Evaluation of GiveDirectly's Cash-only and Cash-plus Programs in the Nakivale Refugee Settlement: Baseline Report

December 15, 2025

Margo Berends, Evan Borkum, Alice Sumbatala, and Alvin Mugwe

Mathematica® Inc.

Contents

Tables

Figures

Acknowledgements

We gratefully acknowledge the contributions of GiveDirectly and COVOID, whose collaboration and commitment supported the design of this study and facilitated baseline data collection. At GiveDirectly, we especially thank Miriam Laker, Diego Martin, Samantha Tinkamanyire, Moshi Israel, Michael Lukyamuzi, Ivan Ntwali, Ivan Awoli, Damalie Kusasira, and Lydia Amali; at COVOID we especially thank JohnBosco Tumuramye and Asasira Obed. We also thank IMPACT Initiatives, our data collection partner, for their high-quality work, persistence, and flexibility in conducting the baseline survey. We are particularly grateful to Melle van Hilten, Theodore Jaspers, and Walter Akwat in IMPACT's Kampala office; Amos Kayijamahe, Mary Ataro, and the enumerator team in Nakivale; and Abubakar Athman for data processing. We further extend our appreciation to the community leaders and program participants in Nakivale for their cooperation and engagement in the study.

I. Introduction

Uganda hosts more than 1.5 million refugees, primarily from neighboring countries (UNHCR 2023; ULearn 2023). Despite Uganda's progressive refugee policies, livelihood outcomes are poorer for refugees than host communities, especially for refugees living in refugee settlements, which house 92 percent of Uganda's refugee population (UNHCR 2023; ULearn 2023). Refugees face barriers to formal employment, limited access to land, poor physical access to markets, and limited access to formal financial services (UNHCR 2023; ULearn 2022). These factors adversely affect livelihood outcomes and constrain the impact and sustainability of programs intended to address them, leaving many refugees reliant on aid.

The non-profit organization GiveDirectly is seeking to understand the potential role unconditional cash transfers (UCTs) can play in improving livelihood outcomes for refugees and vulnerable host community members in Uganda. Between 2019 and 2022, GiveDirectly implemented a large UCT program in the Kiryandongo refugee settlement, which provided transfers equivalent to about $1,000 to about 10,000 refugee households and 5,000 host community households. A randomized controlled trial (RCT) of this program showed that, about two years after cash grants were provided, treatment households owned more assets, consumed more goods and services, and earned more business income compared to the control group (IDInsight 2022).

However, the transfer's effects on business ownership and employment were limited, and refugees' business incomes remained low. More generally, large one-time cash transfers alone might not be sufficient to enable lasting self-reliance (Gupta et al. 2024). Cash-plus interventions, which combine cash transfers with additional services and support, can reinforce and enhance the positive impacts of cash transfers by addressing the non-financial and structural barriers faced by the poor (Roelen et al. 2017). Evidence suggests these interventions can have larger and more sustainable impacts on outcomes such as asset accumulation, incomes, consumption, food security, nutrition, and self-reliance, than cash transfers alone (Sedlmayr et al. 2020; Banerjee et al. 2022; Brune et al. 2023).

To build on the promising results of its program in Kiryandongo, GiveDirectly is implementing a new program in the Nakivale refugee settlement with the potential to deliver enhanced and sustained impacts of cash transfers on refugees' livelihoods. Specifically, GiveDirectly is working with COVOID, a Ugandan non-profit organization, to implement a cash-plus program that includes complementary interventions to empower cash recipients to make choices that increase the long-term household and community benefits of the cash they receive. These complementary interventions comprise three key components:

1. Business development training, financial literacy training, and mentoring to enhance income-generating potential,
2. Access to financial services through Village Savings and Loan Associations, and
3. Demand-driven apprenticeships tailored to a subset of identified cash-plus beneficiaries,

Based on the available funding, 2,694 refugee and 1,897 host community households will receive transfers of 3.7 million Ugandan Shillings (UGX).[1] About 700 of the refugee households who receive cash will also receive access to the complementary cash-plus interventions, which target the head of household.

The cash-plus program begins with three to four days of mindset and life-skills sessions focused on safeguarding, reporting channels, creativity, decision-making, and communication. These sessions prepare participants for subsequent livelihood activities and help them effectively plan and manage their cash transfers in the context of the cash-plus services.

Following this introductory phase, all cash-plus participants receive nine days of training in business development services (BDS) aimed at supporting participants in identifying and starting a business or improving an existing business. The BDS training includes three modules, each of which lasts three days: (1) financial literacy; (2) entrepreneurship skills; and (3) selection, planning, and management. Through these modules, participants learn to manage household and business finances, identify viable business opportunities, and effectively start and manage small enterprises. These trainings are rolled out progressively to small groups of cash-plus participants. At the conclusion of the BDS training, participants receive ongoing follow-on support from community-based trainers, program staff who can help link them to financial services and business opportunities, as well as provide mentorship as participants launch or operate a business.

All cash-plus participants are also invited to join a Village Savings and Loan Association (VSLA) set up by COVOID. The VSLA are small groups of 15 to 30 members who meet weekly for eight to twelve months to save, borrow, and manage funds collectively. Participation in a VSLA is not required for participants to receive other cash-plus services such as BDS training, but it is highly encouraged. COVOID views participation in the VSLA groups as critical to the program model because it helps promote savings and small-scale business-related investments.[2]

Concurrently with and in addition to the BDS training activities, a subset of about 200 cash-plus recipients will also participate in a three-to-four-month apprenticeship program, during which they will receive practical, hands-on vocational training in one of three trades: tailoring, hairdressing, or mechanics. At the conclusion of the apprenticeship, these participants will receive one month of follow-up mentorship from an experienced artisan to support them in launching and managing their own business. During pre-program screening, COVOID identified about 400 eligible cash-plus participants who were interested in learning one of these three trades. COVOID then used participants' self-reports of business demand in

[1] 3.7 million UGX is equivalent to about $1,045 based on the average nominal exchange rate between October 1, 2025 and December 12, 2025, which roughly covers the period during which the cash transfers were made (OANDA 2025). It is also equivalent to $2,790 in 2024 purchasing power parity [PPP] dollars, which accounts for the differences in buying power between Uganda and the United States, based on the 2024 PPP conversion factor for private consumption (World Bank 2025). Throughout this baseline report we present monetary outcomes only in UGX for clarity and simplicity, but in the endline report we will also convert impacts on these outcomes in nominal and PPP dollars.

[2] Initial pre-program screening activities revealed that some eligible cash-plus beneficiaries were already members of existing VSLAs and were reluctant to participate in a new COVOID-led VSLA. It is anticipated that some beneficiaries may opt-out of the COVOID-led VSLA, either because they are a member of another VSLA or for other unrelated reasons.

their area and their perceived aptitude to start a business related to their trade of interest to select the 200 apprentices from this pool of interested beneficiaries.

To rigorously assess the impact of the cash-only and cash-plus interventions, GiveDirectly has contracted with Mathematica to conduct an RCT. In this baseline report, we describe the RCT methodology, assess whether random assignment was successful by testing for baseline equivalence between the RCT's experimental groups using data from a household baseline survey, and conclude with a summary of key findings and next steps.

II. Evaluation methodology

This evaluation aims to strengthen the limited evidence base on livelihoods for refugees by providing rigorous, casual evidence of the efficacy of cash and cash plus interventions for refugees in Nakivale. This evidence will inform programmatic decisions at GiveDirectly as it continues to expand its operations in Uganda and other countries and will make an important contribution to the broader policy debate about the most effective approaches to improve refugees' livelihoods.

A. Research questions

The study has the following five core research questions:

1. What are the differences in impacts on the economic and psychological well-being of beneficiaries between providing UCTs and a combination of the same amount of cash with complementary interventions?
2. How do the impacts of the cash-only and cash-plus programs differ based on the baseline sociodemographic characteristics of recipients and their households (for example, gender, highest education level completed, age, household size and dependency ratio, and baseline economic status)?
3. What factors (individual, household, community, macroeconomic) enable and inhibit positive impacts of the cash-only and cash-plus programs?
4. What insights can be gathered related to the programs' effectiveness, areas for improvement, and their broader community effects and dynamics?
5. What is the extent of spillovers from the cash-only and cash-plus program and what are the spillover mechanisms (for example, through social and economic connections between treatment and control households)?

Research questions 1 and 2 will be answered through the RCT, questions 3 and 4 will be answered through a qualitative study, and question 5 will be answered through a descriptive analysis of the survey data collected for the RCT supplemented by qualitative data. In this baseline report, we present the RCT methodology and findings from the baseline survey.

B. RCT methodology

The RCT will provide rigorous estimates of the causal impact of the cash-only and cash-plus programs on refugees' wellbeing. As described in further detail below, Mathematica randomly assigned refugee households to one of three experimental groups:

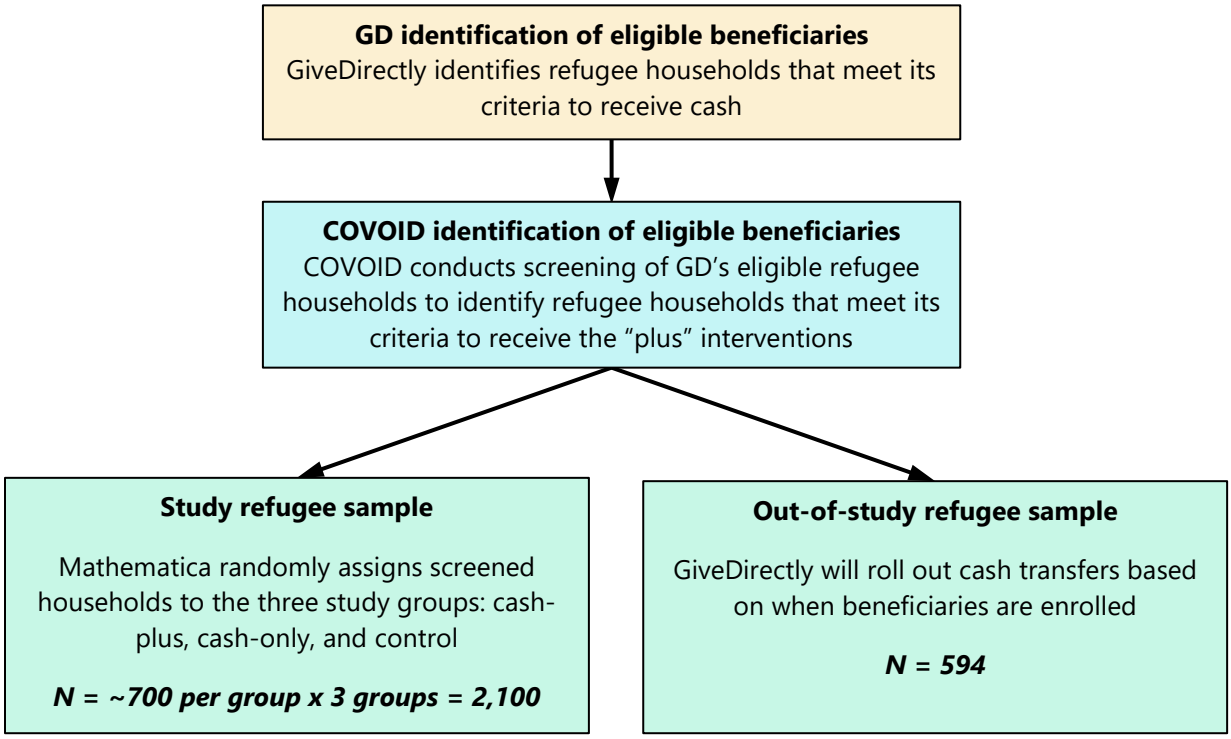
1. Cash-plus treatment: Refugee households are provided with a cash transfer and an offer to participate in complementary interventions.
2. Cash-only treatment: Refugee households are provided with a cash transfer only.

3. Control: Refugee households do not receive a cash transfer or an offer to participate in the complementary intervention during the study period (two years), but will receive a cash transfer of the same value at the end of the study.

Comparing the outcomes of refugee households in the treatment groups to those in the control group will quantify the causal impact of each program. Meanwhile, comparing outcomes between the two treatment groups will quantify the value added by the complementary intervention to the standard cash transfer. The RCT will also facilitate the analysis of subgroup impacts based on baseline household characteristics such as gender of the household head, highest education level completed, age, household size, and baseline economic status.

Figure II.1 outlines the RCT implementation process, which applied to 2,100 of the refugee households that met GiveDirectly's criteria for participating in the program—specifically, households that also met COVOID's criteria for receiving cash-plus interventions. A further 594 refugee households that met GiveDirectly's criteria but were not screened-in by COVOID will receive the cash-only program and are not part of the study. Further, 1,897 host community households will also receive cash transfers, but are not included in the study or in **Figure II.1**.

Figure II.1. RCT Implementation



Identification of eligible beneficiaries. Eligibility for the intervention was determined through a two-step process. In the first step, to determine eligibility for the cash transfers GiveDirectly worked with settlement leaders to invite households residing in all three zones of Nakivale who might meet the eligibility criteria to visit GiveDirectly's verification desks to confirm their eligibility and be screened into the program. These administrative and demographic criteria included: refugee households registered

between 2010 and 2021, residing in one of the three zones in the Nakivale settlement during the verification period (June 11 to August 11, 2025), and classified as moderately vulnerable (as defined and determined by the UNHCR-WFP Joint Post Distribution Monitoring and Needs assessment). Additionally, the head of household was required to have at least five years of formal education or a skills certification (minimum three months of training) and/or to be engaged in any legal income-generating activity, a criterion which was intended to identify households in the best position to generate sustainable income from the cash transfer. Households participating in WFP's self-reliance and graduation program were excluded.

In the second stage, COVOID screened 3,742 households that passed GiveDirectly's eligibility criteria using a scoring tool to assess vulnerability based on four dimensions: (1) household income security, (2) household education and interest in an apprenticeship or vocational training, (3) social protection, and (4) livelihood and employment. Each household received an overall score expressed as a percentage, with higher scores indicating greater vulnerability. Households with a score of at least 50 percent were deemed eligible for the cash-plus intervention and thus were included in the study sample for random assignment. The head of each household is the targeted individual will receive the complementary services under the cash-plus program if the household is assigned to the cash-plus group.

Study sample and sample sizes. The 2,100 households meeting GiveDirectly's and COVOID's criteria for participating in the cash-plus program serve as the study sample for the RCT. We randomly assigned these households to one of three roughly equal-sized groups of about 700 households each: (1) immediate receipt of the cash-only program (first treatment group); (2) immediate receipt of the cash-plus program (second treatment group); or (3) receipt of the cash-only program two years later, after the study concludes (control group). At baseline we aimed to survey 1,950 of these 2,100 households to meet our targeted sample size needs. We estimate that these sample sizes will enable us to detect an effect of 0.15 standard deviations or greater on monthly household expenditure for both the cash-only and cash-plus programs, as well as to identify differences of the same magnitude between the two programs. This minimum detectable effect for the full sample is near the lower end of the range observed in other enterprise and employment development programs in developing countries, which report impacts between 0.10 to 0.61 standard deviations (Blattman et al. 2014, Blattman and Annan 2016, Blattman et al. 2016).

Random assignment. To implement the random assignment process in a manner that ensured transparency and perceived fairness, we conducted a lottery in Nakivale on September 17, 2025 with leaders from the Nakivale settlement. Given the large number of beneficiaries in the study sample, we conducted a batch random assignment process whereby we assigned beneficiaries to experimental groups based on the last two digits of their individual refugee number. Because the last two digits of refugee identification numbers are effectively random, this method preserves the integrity of the randomization process and minimizes the risk of systematic bias. Settlement leaders drew tokens numbered between 00 and 99 from a bag to randomly assign groups of beneficiaries with the corresponding last two digits of their individual refugee number to group 1 (cash-plus), group 2 (cash-only), or group 3 (control). A total of 710 beneficiaries were assigned to the cash-plus group, 700 to the

cash-only group, and 690 to the control group.[3] Beneficiaries were notified of their group assignment by GiveDirectly via SMS on October 10, 2025.

C. Data collection

Survey instrument. The baseline survey instrument was developed by Mathematica in consultation with GiveDirectly and IMPACT Initiatives, our local data collection partner. It was pretested by IMPACT Initiatives, with oversight from Mathematica, with 18 respondents on September 4 and 5, 2025. Following the pretest, the survey was adjusted and finalized by Mathematica. From September 15 to 17, 2025, IMPACT Initiative's supervisory team and two members of Mathematica's team co-led a three-day training for 35 enumerators on the survey instrument, data collection procedures, and safeguarding of respondents. The training was followed by a one-day pilot on September 18, 2025, during which 22 pilot respondents were interviewed. **Table II.1** provides an overview of the information collected through the baseline survey, which includes household characteristics and pre-program outcomes.

Table II.1. Baseline survey contents

Domain	Survey details
Respondent identification and informed consent	• Confirm the identity of and consent for the survey from the targeted beneficiary or another adult household member if the targeted beneficiary is not available
Demographics and household composition	• Number of household members and if at least one household member has a disability • For each household member: where they are currently residing, age, level of education, work status, and school enrollment • For the head of household: marital status, home country, and years of residency in Nakivale
Livelihood activities	• Household income from different sources • Household's non-agricultural businesses: business type, revenue, operating costs, performance, number of employees, profit, savings, debt, and stock in hand for each business • Household's agricultural activities: revenue from crops and livestock
Household expenditure	• Household expenditure in the last 30 days on a list of items including: food, personal care, fuel and utilities, health and medical care, transportation, entertainment, financial payments, housing and land investments, household assets, social and religious expenses, education, agricultural inputs, livestock and related items, and any other major expenses
Household assets	• Amount of land owned, ownership of dwelling, household has a bank account • Ownership of household assets, transportation equipment, technology/communications items and the replacement value of each if the item is used for business purposes • Ownership of agricultural and livestock assets and replacement or sale value
Household living conditions	• Electricity, fuel type, drinking water source, sanitation facilities, dwelling materials, number of rooms, and condition of housing
Household debt and savings	• Value of debt from different sources, total value of savings, and money owed to household by others

[3] Because the distribution of last two digits of the refugee individual identification number were not exactly evenly distributed across the sample for random assignment, the number assigned to each group was not exactly equal to 700.

Livelihoods coping strategies	• Household engaged in any of the following coping strategies in the last 30 days due to lack of resources: sold household assets/goods, borrowed money, spent savings, sold or exchanged in-kind assistance, sold productive assets or means of transportation, reduced health expenditures, withdrew children from school, sold house/land, begged or scavenged, engaged in socially degrading, high-risk, exploitive, or life-threatening jobs or income-generating activities
Contact information	• Respondent's primary and secondary phone numbers and phone numbers for up to two other household members or friends/relatives to facilitate follow-up at endline

Timing of data collection. The team of enumerators from IMPACT Initiatives conducted the baseline survey with refugee households in the three experimental groups between September 19, 2025 (immediately following random assignment) and October 23, 2025.

Refugee households in the cash-plus and cash-only groups received their cash transfers in three installments over a period of about three months. The first transfer of 500,000 UGX (about $140 or PPP $375) was made in late October 2025, the second transfer of 1.2 million UGX (about $340 or PPP $905) in November 2025, and the final transfer of 2 million UGX (about $565 or PPP $1,510) in December 2025. COVOID began training activities for cash-plus participants in mid-October 2025.

We initially planned for beneficiaries to be notified of their random assignment group and receive their first cash transfer payment after the end of baseline collection. This would have ensured that baseline responses reflect pre-intervention conditions and were not influenced by participants' expectations or changes in spending behaviors after receiving cash. However, due to delays in the eligibility verification process which delayed the random assignment event and the start of data collection, beneficiaries were notified of their random assignment group on October 10, 2025, 13 days before the end of baseline data collection and most beneficiaries in the cash-plus and cash-only groups received the first and smallest cash transfer payment (500,000 UGX) the week of October 20th, a few days before the end of data collection. About 35 percent of beneficiaries were surveyed after being notified of their random group assignment and up to 10 percent of cash and cash-plus beneficiaries were surveyed after receiving the first cash transfer payment. Further, beneficiaries in the cash-plus group began the initial mindset and life-skills training and VSLA activities on a rolling basis starting on October 13, 2025 and some apprenticeships began as early as October 15, 2025. The BDS training was not rolled out to beneficiaries until November 21, 2025. Thus a small proportion of cash-plus beneficiaries may have participated in some initial training activities prior to the baseline survey.

Nevertheless, we do not expect notification of random assignment, initial transfers, or early cash-plus activities to have materially affected baseline outcomes, for several reasons. First, for the beneficiaries interviewed after notification and/or receipt of the cash transfer and/or participation in initial cash-plus activities, there was a very small window between notification/receipt and the survey, leaving limited time for any real behavioral or asset changes to occur. Second, the amount of the first cash transfer is relatively small, less than 15 percent of the total amount that will be received, and the intensity of initial training activities for those in the cash-plus group during this window is limited. Third, many of key baseline variables, such as ownership of a non-agricultural business or business profits, would not change instantly in response to a change in expectations or cash flow. Other key variables, such as consumption

expenditure in the past 30 days or business capital investments in the past 6 months, are measured over recall windows that extend before random assignment, initial transfers, or initial training activities even for the relatively small subset of the survey sample that was surveyed afterwards. This limits any influence of group assignment, the first transfer installment, or initial training activities on baseline measures. Finally, our baseline equivalence tests (presented in **Chapter III**) confirm that the notification of group assignment, cash transfer, and initial training activities prior to the baseline survey for this relatively small subset of beneficiaries likely had minimal anticipatory effects.

Sample and response rates. From the 2,100 refugee households in the study population, we drew a simple random sample of 1,950 households to meet our sample size needs and designated the remaining 150 households as replacement respondents. Because sampling was conducted before random assignment, the sample of 1,950 households was not distributed exactly evenly across the three experimental groups (first row of **Table II.2**). Although the intervention and unit of analysis of the study is the household level, within each household there is an individual registered as the cash transfer beneficiary, typically the household head. The registered beneficiary was the targeted survey respondent, but if the registered beneficiary was not available enumerators surveyed another adult household member who was knowledgeable about household activities.

Enumerators made at least three attempts to survey each sampled respondent or another knowledgeable adult household member before replacing them with a household from the replacement list. Enumerators completed baseline surveys with a total of 1,877 beneficiaries, 96.3 percent of the targeted sample size. 1,784 of the surveyed respondents were from the primary sample, rather than the replacement list, representing an overall response rate of 91.5 percent, which did not vary significantly by experimental group. In 5.9 percent of surveyed households (110 households) we interviewed an adult household member other than the targeted beneficiary. **Table II.2** summarizes the sample size, number of completed surveys, and response rate (defined as the percentage of sampled respondents that were successfully interviewed) overall and by experimental group. After random assignment and baseline data collection were completed, GiveDirectly determined through its registration process that several dozen randomly assigned households were ineligible for cash transfers, primarily because they could not be contacted or were not in fact residing in the settlement. The list of ineligible households was not yet available at the time of report writing and they are therefore included in this report, but we plan to remove them from the evaluation sample for the endline. By virtue of random assignment, we expect them to be roughly evenly distributed across experimental groups, and thus removing them from the endline evaluation sample should not substantively affect the baseline differences across groups described in this report.

Table II.2. Baseline survey sample and response rates

	Total	Cash plus	Cash only	Control
Number of sampled respondents	1,950	657	664	629
Number of completed surveys, including sampled respondents and replacements	1,877	633	634	610
Number of surveys completed with sampled respondents	1,784	597	610	577
Response rate (number of surveys completed with sampled respondents divided by number of sampled respondents)	91.5%	90.9%	91.9%	91.7%

Challenges and facilitators. Overall, baseline data collection proceeded successfully despite some operational challenges related to logistics and coordination that prolonged data collection slightly beyond the initial projected timeline. Data collection started more slowly than anticipated as IMPACT Initiatives was unaware of a requirement for enumerators to use SIM cards registered to the firm rather than to individual enumerators to contact respondents and delays in obtaining enough SIM cards initially limited the number of respondents that could be pre-contacted to arrange interviews. Reaching the full sample was also complicated by concurrent activities from other organizations impacting the availability and willingness of respondents to participate in the survey, as well as difficulties in locating some households due to incorrect phone numbers or missing household GPS coordinates in the sample data. In these cases, senior field officers from IMPACT Initiatives worked with local leaders to identify and locate sampled respondents. A lack of information regarding the preferred language of respondents also complicated data collection, as this required additional time and coordination to match enumerators and respondents based on language after initial contact was made with the household.

Most of these challenges can be mitigated at endline. Now that IMPACT Initiatives is aware of the need for dedicated company-registered phone lines, SIM cards can be procured in sufficient quantity in advance of endline data collection to facilitate enumerator contact with respondents to arrange interviews. Additionally, locating and reaching respondents should be more easily facilitated at endline due to the additional contact information, GPS coordinates of the household, and a description of the household location that were collected at baseline. Matching enumerators with respondents based on language should also be smoother at endline given that the preferred survey language was recorded at baseline.

Despite these challenges, several factors facilitated high-quality baseline data collection. The pretest and pilot allowed for refinements to the tool prior to data collection and SMS message blasts sent by GiveDirectly to inform respondents of the data collection effort improved respondent engagement and enumerator credibility in the field. The presence of IMPACT's senior field officers in Nakivale provided effective supervision and real-time troubleshooting, supported by remote technical assistance from Mathematica. Daily debriefs, data checks, and strong communication within and between IMPACT Initiatives, Mathematica, and GiveDirectly helped identify and address emerging issues quickly.

D. Baseline analysis approach

The validity of an RCT depends on the experimental groups being equivalent at baseline, so that any subsequent differences in outcomes at endline can be attributed to the intervention itself. Although random assignment should achieve this balance, it is best practice to verify and assess any differences that

may occur by chance. In this baseline report, we therefore evaluate equivalence in baseline characteristics across the three experimental groups. To do so, we estimate pairwise differences in means between experimental groups (cash-plus versus cash-only, cash-plus versus control, and cash-only versus control,) and test whether these differences are statistically distinguishable from zero. In addition, we conduct joint statistical tests that the means are equal across all three experimental groups.

III. Findings

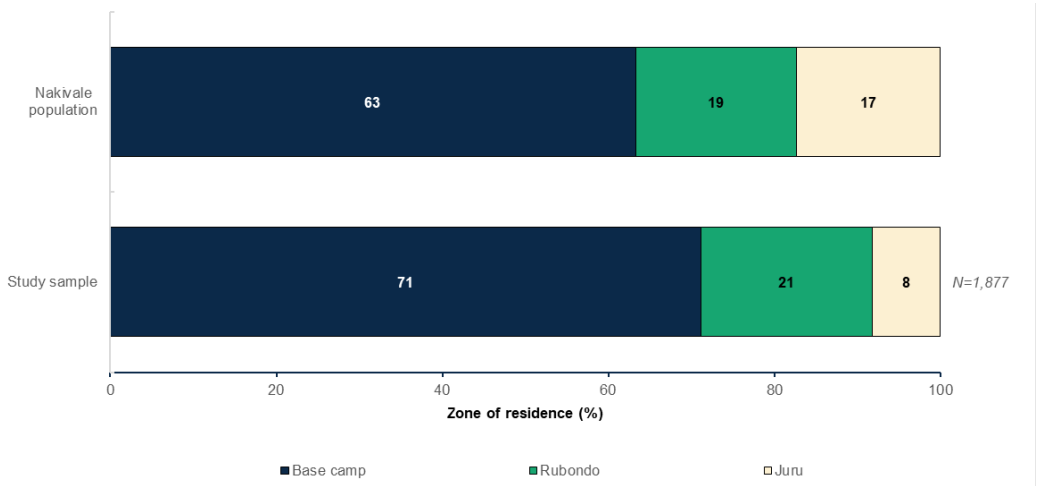
In this section we report the findings from the baseline survey. We begin in Section A by contextualizing the characteristics of the study sample (all three experimental groups combined) relative to those of the broader population of refugees in Nakivale. This comparison provides context for the selection of program beneficiaries and might help inform the generalizability of the endline evaluation findings to the broader refugee population in Nakivale. In Sections B to I, we describe the baseline characteristics and outcomes in the three experimental groups and assess the extent to which random assignment successfully created equivalent experimental groups at baseline.

A. Comparison of study sample to Nakivale refugee population

The study sample is broadly similar to the wider Nakivale refugee population in key demographic characteristics, though there are some differences, especially regarding education-levels, reflecting the program's specific eligibility criteria. Compared with the wider Nakivale population, the study sample has a larger share of households in Base Camp and a smaller share in Juru zone (**Figure III.1**).[4] Average household size, average number of children, the share of households with at least one member with a disability, and average age of the household head are very similar in the study sample and broader Nakivale refugee population, but the study sample has a lower percentage of female-headed households (45 versus 55 percent) (**Table III.1**). Most study households are from the Democratic Republic of the Congo and Burundi; the same is true of the broader Nakivale refugee community, although the study sample slightly overrepresents refugees from Burundi and Somalia and underrepresents those from Rwanda (**Figure III.2**). The average head of household having been in the settlement for 9.4 years, reflecting that eligibility for GiveDirectly's cash transfer program was restricted to refugees who arrived between 2010 and 2021 (**Table III.1**). This broadly aligns with a long-tenured refugee population, with external data showing that, among all refugees living in the settlement in 2025, 55 percent had arrived before 2017 and 19 percent had arrived between 2017 and 2021 (not shown). Finally, about 16 percent of heads of household in the study sample had completed secondary education and 9 percent had completed a university or technical and vocational education and training (TVET) degree, compared to only 4 percent and 3 percent, respectively, of the Nakivale refugee population (**Figure III.3**). The higher educational attainment in the study sample reflects the program's eligibility criteria, which required at least five years of formal education or a skills certificate, or engagement in an income-generating activity. In Section B below we revisit some of the demographic characteristics of the study sample, comparing them across the three experimental groups to assess baseline equivalence.

[4] Data on the refugee population of the three zones in Nakivale (excluding host community members) was not available, so we compare the study sample to the overall population of Nakivale, including both refugees and host community members. Thus these differences in distribution across the three zones may also be a result of differences in where refugees versus host community members live.

Figure III.1. Zone of residence of study sample households and Nakivale refugee population



Sources: Study sample - baseline household survey data. Nakivale population – Uganda National Population and Housing Census 2024 (Uganda Bureau of Statistics 2025).

Table III.1. Comparison of study sample to Nakivale refugee population

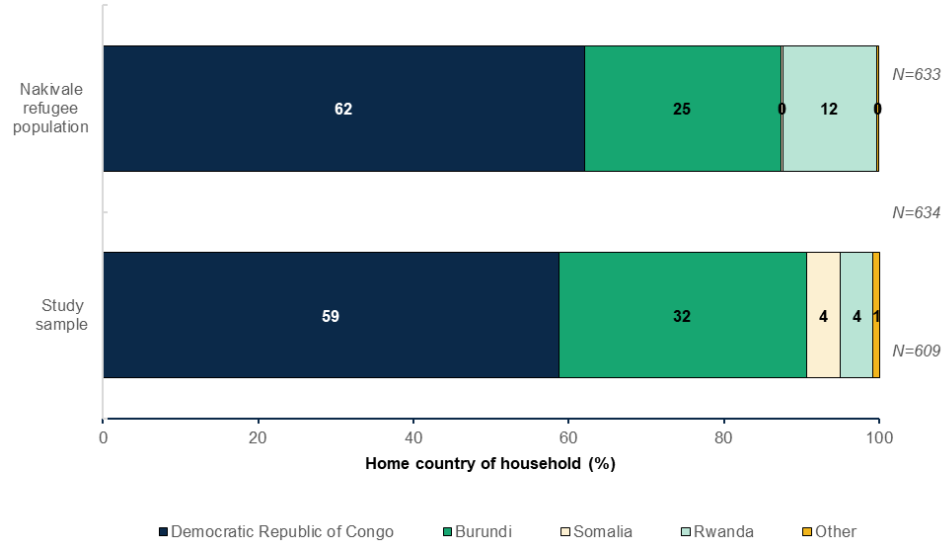
	Study sample	Nakivale refugee population
Number of HH members	6.1	5.3
Number of HH members under age 18	3.3	3.2
At least one HH member has a disability (%)	31.1	33.8[a]
Female head of HH (%)	45.0	54.9
Age of head of HH (years)	41.3	41.3
Number of years in Nakivale (years)	9.4	Not available
Sample size	**1,870-1,877**	**Not applicable**

Sources: Study sample - baseline household survey data. Nakivale refugee population – 2025 Food Security Nutrition Assessment in Refugee Settlements and Refugees in Kampala (Ministry of Health et al. 2025).

Notes: HH = household. In the baseline survey, a disability was defined as a permanent disability or long-term health condition that results in physical or mental impairment that substantially limits daily life activities such as their ability to do things independently, move around on their own, work, or take care of children. Examples may relate to mobility, vision, hearing, intellectual, sensory, health, or other issues.

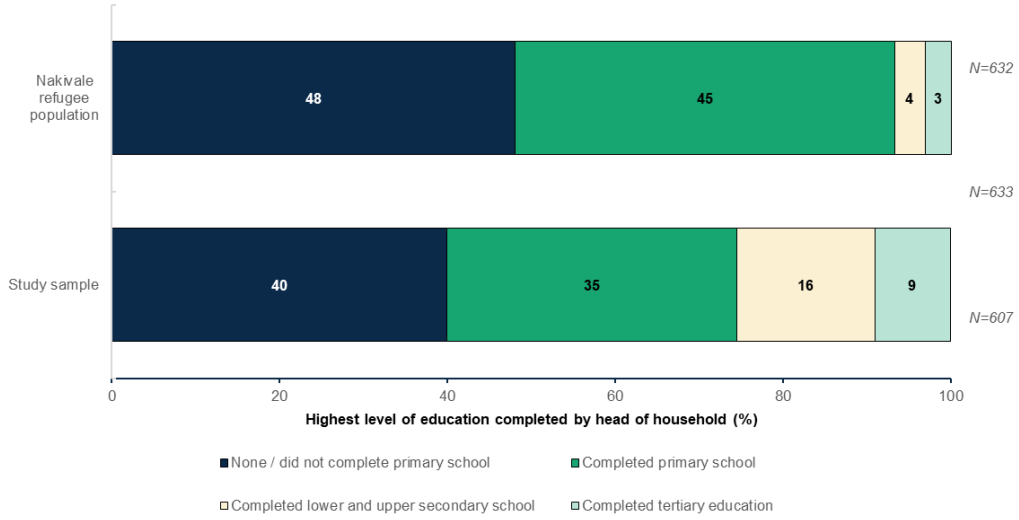
[a] The FNSA 2025 reported the percentage of households in Nakivale with a physically disabled household member (8.9 percent), the percentage with a mentally disabled member (8.5 percent) and the percentage with a chronically ill member (16.4). The figure for percentage of households with at least one member with a disability reported here (33.8 percent) was obtained by summing these three categories which might overestimate disability status given that these categories are not mutually exclusive and this approach could double count some households.

Figure III.2. Home country of study sample households and Nakivale refugee population



Sources: Study sample - baseline household survey data. Nakivale refugee population – 2025 Food Security Nutrition Assessment in Refugee Settlements and Refugees in Kampala (Ministry of Health et al. 2025).

Figure III.3. Head of household's highest completed education level among study sample and Nakivale refugee population households



Sources: Study sample - baseline household survey data. Nakivale refugee population – 2025 Food Security Nutrition Assessment in Refugee Settlements and Refugees in Kampala (Ministry of Health et al. 2025).

B. Household demographic characteristics

More than two-thirds of study households resided in the Base Camp and they reported, on average, six members including three children under the age of 18. Across the three experimental groups, between 70 and 73 percent of households resided in the Base Camp zone, followed by between 20 and 21 percent in Rubondo zone and between 7 and 10 percent in Juru zone (**Table III.2**). Between 6 and 8 percent of households had at least one household member temporarily residing outside of Nakivale; at endline we will assess impacts on both temporary and permanent migration as secondary

outcomes. About one-third of households reported having at least one household member with a disability, defined as a permanent disability or long-term health condition that results in physical or mental impairment that substantially limits daily life activities. Although this disability rate is high, it is aligned with the broader refugee community in Nakivale, as discussed in Section A..

Table III.2. Household demographic characteristics

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
Zone: (%)							
Base camp	71.2	69.7	72.6	1.5	-1.4	-2.9	0.527
Juru	7.4	9.9	7.0	-2.5	0.4	2.9*	0.127
Rubondo	21.3	20.3	20.3	1.0	1.0	0.0	0.882
Number of HH members	6.1	6.1	6.1	0.1	0.0	-0.1	0.869
Number of HH members under age 18	3.3	3.3	3.3	0.0	0.0	-0.1	0.861
At least one HH member temporarily resides outside of Nakivale (%)	7.9	7.8	6.0	0.2	2.0	1.8	0.328
At least one HH member has a disability (%)	32.7	31.5	29.2	1.2	3.5	2.3	0.397
Female head of HH (%)	45.3	43.5	46.1	1.8	-0.7	-2.5	0.651
Age of head of HH (years)	41.3	41.9	40.8	-0.6	0.5	1.1*	0.224
Marital status of head of HH: (%)							
Head of HH is married (%)	63.9	65.1	66.9	-1.3	-3.1	-1.8	0.520
Number of years in Nakivale (years)	9.4	9.5	9.5	-0.1	-0.1	0.0	0.949
Sample size	**628-633**	**632-634**	**607-610**	-	-	-	-

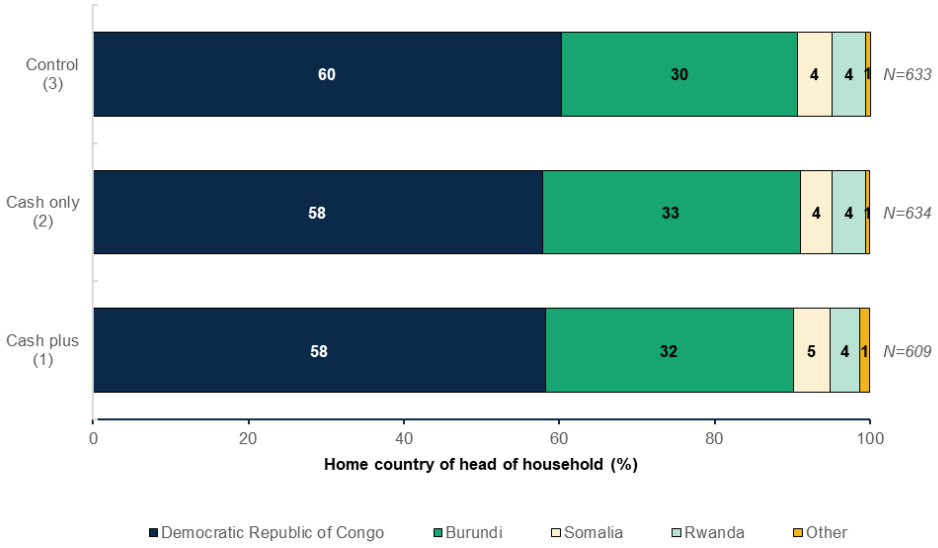
Source: Baseline household survey data.

Notes: HH = household. A disability was defined as a permanent disability or long-term health condition that results in physical or mental impairment that substantially limits daily life activities such as their ability to do things independently, move around on their own, work, or take care of children. Examples may relate to mobility, vision, hearing, intellectual, sensory, health, or other issues.

***/**/*: Difference between means is statistically significant at the .01/.05/.10 level.

Heads of households in all three groups have been in Nakivale for close to a decade, on average, with most arriving from the Democratic Republic of the Congo followed by Burundi. Across the three experimental groups, between 58 and 60 percent of household heads are from the Democratic Republic of the Congo, between 30 and 33 percent are from Burundi, and smaller shares are from Somalia, Rwanda, and other countries (**Figure II.4**). These heads of household had been in Nakivale for between 9 and 10 years, on average (**Table III.2**), suggesting that they were typically well-established in the settlement at baseline.

Figure III.4. Home country of head of household

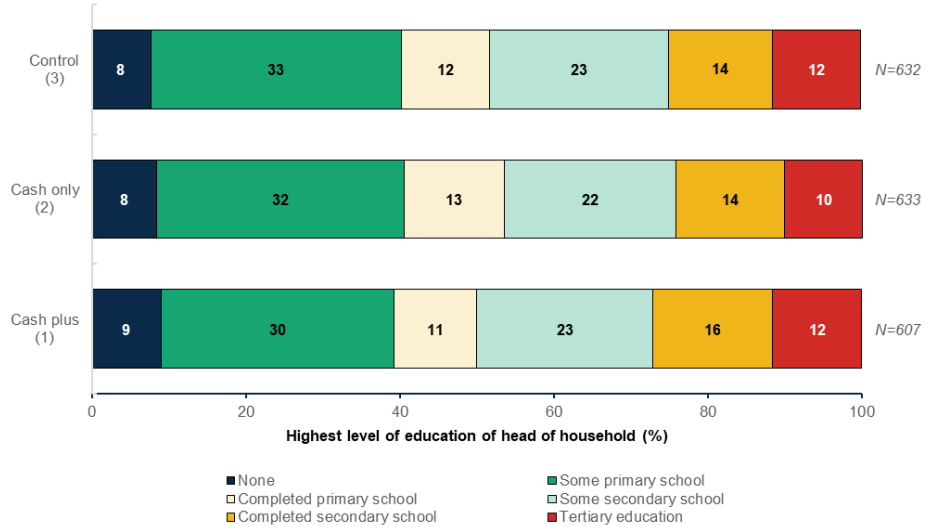


Source: Baseline household survey data.

Note: There are no statistically significant differences between the three groups.

Educational attainment among heads of households is diverse, with about one-quarter having a completed secondary education or better. Almost one-half of heads of household are female, about two-thirds are married and they are in their early forties, on average (**Table III.2**). Between 39 and 41 percent of heads of household did not complete their primary education, whereas between 47 and 50 percent have at least some secondary education (**Figure III.5**). This includes between 10 and 12 percent with some tertiary education or a tertiary diploma.

Figure III.5. Highest level of education of head of household



Source: Baseline household survey data.

Note: Tertiary education includes at least some technical and vocational education and training (TVET) or university studies or a completed TVET or university degree. There are no statistically significant differences between the three groups.

Overall, these demographic characteristics are well balanced across the three experimental groups. Differences between the groups are all small in magnitude and few are statistically significant, increasing our confidence that random assignment successfully resulted in comparable experimental groups. Nevertheless, we will control for demographic characteristics in our endline analysis to improve the precision of our impact estimates and will also use them to analyze impacts by subgroup.

C. Head of household work status and children's school enrollment

At baseline, about two-thirds of heads of households were engaged in non-agricultural income-generating activities. The most common non-agricultural income-generating activity for heads of households was self-employment or working in a household business, accounting for between 36 and 42 percent of households (**Table III.3**). The other common non-agricultural income-generating activity for heads of household was casual non-agricultural labor or paid domestic work (between 20 and 24 percent), while salaried employment was uncommon (between 3 and 4 percent). Considering all household members of working age (at least 14 years old), more than three-quarters of households had at least one member engaged in a non-agricultural income generating activity. There is good balance in these baseline outcomes across the three experimental groups, with a few small differences (5 percentage points or less) that are only statistically significant at the 10 percent level and no more than we would expect by chance (**Table III.3**).

Table III.3. Work status of head of household and school enrollment of household children

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
Household income generating activities							
Work status of head of household in the past month: (%)							
Salaried	3.8	3.0	4.4	0.8	-0.6	-1.4	0.411
Self-employed or working in a HH business	41.4	41.8	36.4	-0.4	5.0*	5.4*	0.097*
Casual non-agricultural laborer or paid domestic worker	19.9	21.3	24.3	-1.4	-4.4*	-3.0	0.166
Engaged in HH agricultural activities	11.7	10.1	14.1	1.6	-2.4	-4.0*	0.091*
Casual agricultural laborer	14.1	12.8	14.4	1.3	-0.4	-1.7	0.673
Not working but available	6.5	8.0	4.6	-1.6	1.9	3.5*	0.045**
Not working and not available	2.7	3.0	1.8	-0.3	0.9	1.2	0.379
Head of household engaged in non-agricultural income-generating activity (%)	65.1	66.1	65.1	-1.0	0.0	1.0	0.911
At least one HH member (age 14+) is engaged in non-agricultural income-generating activity (%)	78.5	76.5	77.7	2.0	0.8	-1.2	0.696
Sample size	**629-633**	**631-634**	**605-610**	-	-	-	-

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
Schooling among households with at least one child between the ages of 6 and 18							
All primary school-aged children in HH currently enrolled in school (%)	87.2	87.0	83.3	0.1	3.8	3.7	0.185
All primary school-aged girls in HH currently enrolled in school (%)	88.6	88.4	86.7	0.2	1.9	1.7	0.725
All secondary school-aged children in HH currently enrolled in school (%)	66.8	65.0	64.2	1.8	2.6	0.8	0.776
All secondary school-aged girls in HH currently enrolled in school (%)	70.7	72.8	68.5	-2.1	2.2	4.3	0.615
Sample size	**255-436**	**224-439**	**219-438**	-	-	-	-

Source: Baseline household survey data.

Note: HH = household. Primary school-aged children were defined as children who are at least 6 years old and less than 14 years old. Secondary school-aged children were defined as children who are at least 14 years old and less than 19 years old.

***/**/*: Difference between means is statistically significant at the .01/.05/.10 level.

School enrollment was high for both primary and secondary children, including girls, in all three groups. Between 83 and 87 percent of households across the three groups with primary school-aged children (ages 6 to 13), had all those children enrolled in school (**Table III.3**). Among households with primary school aged girls, almost 90 percent had all those girls enrolled. For secondary school enrollment, between 64 and 67 percent of households with secondary school-aged children (ages 14 to 18) had all those children enrolled. Again, these rates were slightly higher, closer to 70 percent or even higher, for enrollment of all secondary school-aged girls. On average, these enrollment rates are somewhat higher compared to the Nakivale refugee population as a whole; external data suggest that about 72 percent of refugee children between the ages of 3 and 18 attended at least some school during the 2023-24 school year (FSNA 2025). Because our study sample has higher levels of education, on average, than the Nakivale refugee population (see **Figure III.3**) and differs on other demographic characteristics such as zone of residence and country of origin, higher school enrollment rates among the study sample may be reasonable. We did not collect data on school attendance in the baseline survey, but plan to do so at endline as high enrollment rates may mask high absenteeism and there might be more scope for improvement in school attendance given high baseline enrollment rates.

D. Non-agricultural businesses

About one-half of households owned or operated a non-agricultural business at baseline. Household ownership of a non-agricultural business is a key primary outcome for this study. At baseline, between 49 and 54 percent of households in each experimental group reported that they owned or

operated a non-agricultural business (**Table III.4**).[5] Among households with at least one business, the vast majority only operated one business. The rate of business ownership is slightly higher in the cash-plus group compared to the control group, a difference of about 5 percentage points that is only statistically significant at the 10 percent level; differences across the other groups and across all three groups together are not statistically significant. We will control for this small baseline difference in our endline analysis to avoid it biasing the impact estimates for this critical outcome, as we will for all outcomes.

Table III.4. Household non-agricultural businesses

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
HH owns/operates a non-agricultural business (%)^	53.9	51.4	49.2	2.5	4.7*	2.2	0.254
Sample size	**633**	**634**	**610**	-	-	-	-
Business characteristics among HHs with at least one non-agricultural business							
Number of non-agricultural HH businesses is:							
1	83.6	85.0	84.0	-1.4	-0.4	1.0	0.882
2	15.0	10.4	14.0	4.5*	1.0	-3.6	0.194
3	1.5	4.0	1.3	-2.5*	0.1	2.7*	0.039
4	0.0	0.6	0.7	-0.6	-0.7	-0.1	0.334
At least one business is: (%)							
Retail and trade	48.4	47.7	45.6	0.7	2.7	2.1	0.776
Food and beverage	28.0	36.6	39.1	-8.6*	-11.0*	-2.4	0.008***
Tailoring or dressmaking	12.1	10.5	10.4	1.6	1.7	0.0	0.740
Salon or barbershop	5.9	3.7	5.1	2.2	0.8	-1.4	0.415
Transportation services	7.4	6.8	4.7	0.6	2.7	2.1	0.363
Other	10.9	7.7	6.7	3.2	4.2*	1.0	0.136
At least one business had paid employees in past 6 months (%)	13.3	15.7	18.7	-2.4	-5.4*	-3.0	0.174
Business financial outcomes among HHs with at least one non-agricultural business							
Performance of the best performing HH business in the past 30 days relative to average performance: (self-assessment; %)							
Bad	22.3	20.4	21.0	1.9	1.2	-0.6	0.834
Normal	57.0	58.3	56.3	-1.4	0.7	2.1	0.869
Good	20.8	21.3	22.7	-0.5	-1.9	-1.4	0.832

[5] This is higher than the percentage of household heads reporting self-employment or a household business as their main activity in Section C. This could be because the household business is not the household head's main activity or the household business only involves other household members.

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
Had large capital investments in past 6 months (%)	62.8	65.6	63.7	-2.9	-0.9	2.0	0.732
Cost of large capital investments in past 6 months (UGX)	93,950	92,252	98,935	1,699	-4,985	-6,683	0.801
Business assets and liabilities:							
Have stock on hand (%)	84.7	84.5	82.9	0.1	1.7	1.6	0.811
Value of stock on hand (UGX)	384,018	342,563	335,555	41,454	48,463	7,008	0.238
Value of HH assets used for business purposes (UGX)	162,830	152,491	161,587	10,339	1,243	-9,096	0.820
Have business savings (%)	66.3	63.5	67.0	2.8	-0.7	-3.5	0.617
Business savings (UGX)	102,501	91,187	100,623	11,314	1,878	-9,436	0.456
Have business debt (%)	45.5	42.0	42.0	3.4	3.5	0.0	0.588
Business debt (UGX)	66,355	54,534	57,067	11,821*	9,288	-2,533	0.213
Business net worth (UGX)	584,198	530,681	542,054	53,517	42,144	-11,372	0.419
Sample size	**337-341**	**323-326**	**295-300**	-	-	-	-

Source: Baseline household survey data.

Note: HH = household. Reported values are across all household businesses unless otherwise noted. The value of household assets used for business purposes is based on the self-reported replacement value of key household assets in their current condition that are used for a non-agricultural business. Business net worth is defined as the value of stock on hand plus the value of household assets used for business purposes plus business savings minus business debt. Prior to conducting the analysis, we identified and winsorized outliers for continuous business financial outcomes using the Inter Quartile Range (IQR) method (Dash et al. 2023). The IQR is defined as quartile 3 (Q3) minus quartile 1 (Q1)). Under the IQR method, the upper "fence" for outliers is equal to Q3+1.5*(Q3-Q1) and the lower fence is equal to Q1-1.5*(Q3-Q1). Prior to analysis, we recoded values exceeding the upper fence to the upper fence and, for outcomes with negative values such as profit, we additionally recoded values exceeding the lower fence to the lower fence.

^ Shaded tan rows indicate primary outcomes of interest.

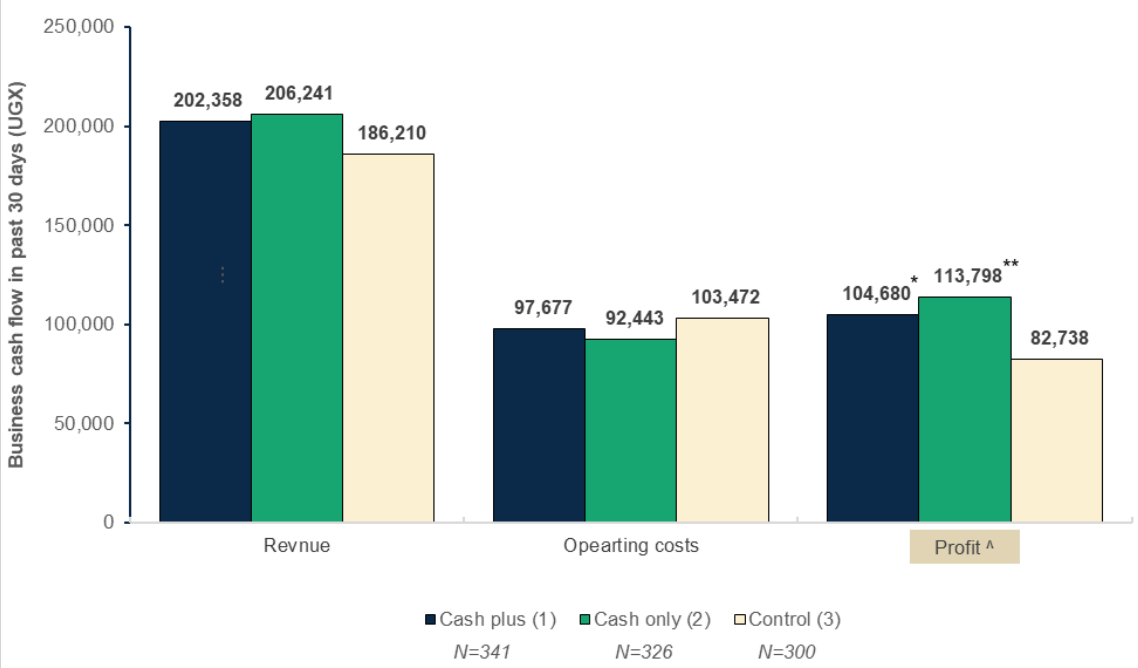
***/**/*: Difference between means is statistically significant at the .01/.05/.10 level.

Retail and food or beverage businesses were the most common, and the vast majority of businesses had no paid employees. Business activities were concentrated in retail or trade (between 46 and 48 percent of business-owning households) and food and beverage (between 28 and 39 percent), with tailoring business, salons, and transportation business being less common (**Table III.4**). Between 7 and 11 percent of households had a business that did not fit into one of these categories—primarily service provision businesses such as bicycle repairs, phones charging, electricity services, photography, or shoe cleaning. Only between 13 and 19 percent of household-owning businesses had any paid employees, most of which had only one or two employees (not shown). There is good balance across the three experimental groups with regards to business characteristics with a few small chance differences that are only statistically significant at the 10 percent level.

Average monthly non-agricultural business profits were modest across all three experimental groups. Monthly business profits for non-agricultural businesses are another key primary outcome for

this study. Among households with at least one non-agricultural business, average revenues across all businesses in the past 30 days were between about 186,000 and 206,000 UGX (**Figure III.6**).[6] Average operating costs in the past 30 days were between about 92,000 and 103,000 UGX, resulting in average monthly profits of between about 83,000 and 114,000 UGX.[7] There were small differences in business profits between the cash-plus and cash-only groups relative to the control group, which are statistically significant but small in magnitude. We will control for these small baseline differences in our endline analysis to prevent bias in the impact estimates for this primary outcome. Most business-owning households in all three groups self-reported normal business performance over the past 30 days, while the rest were roughly evenly split between those reporting better or worse performance. This suggests that the reported revenues and operating costs reflect typical business operations, on average. Beyond operating costs, about two-thirds of business-owning households in each group reported making at least one large capital investment in the past six months, averaging between about 92,000 and 99,000 UGX (**Table III.4**).

Figure III.6. Non-agricultural business revenue, operating costs, and profit in the last 30 days



Source: Baseline household survey data.

Note: Prior to conducting the analysis, we identified and winsorized outliers for revenue, operating costs, and profit using the Inter Quartile Range (IQR) method (Dash et al. 2023). The IQR is defined as quartile 3 (Q3) minus quartile 1 (Q1)). Under the IQR method, the upper "fence" for outliers is equal to Q3+1.5*(Q3-Q1) and the lower fence is equal to Q1-1.5*(Q3-Q1). Prior to analysis, we recoded values exceeding the upper fence to the upper fence and, for outcomes with negative values such as profit, we additionally recoded values exceeding the lower fence to the lower fence.

^ Shaded tan box indicates primary outcome of interest.

***/**/*: Difference between means relative to the control group is statistically significant at the .01/.05/.10 level.

[6] Median revenues were slightly lower, between 140,000 and 150,000 UGX (not shown).

[7] Median profits were slightly lower, between 60,000 and 82,500 UGX (not shown).

Average business net worth was positive, driven by the value of stock on hand and to a lesser extent by the value of business assets and savings. Households with non-agricultural businesses held business stock to the value of between 335,000 and 384,000 UGX, on average—likely reflecting the prevalence of retail and trade businesses, for which stock is relevant—and held other business-related assets with a value of between about 152,000 and 163,000 UGX, on average (**Table III.4**).[8] About two-thirds also had businesses savings, holding between about 92,000 and 103,000 UGX on average, whereas fewer than one-half had business debt, averaging between 55,000 and 66,000 UGX. Business net worth (stock on hand plus savings and household assets used for business purposes less business debt) averaged between about 531,000 and 584,000 UGX across the three experimental groups. Overall, these results indicate that typical baseline non-agricultural household businesses were small and turning a marginal positive profit, with a similar average financial position across the three experimental groups despite some small differences in profits between the three groups.

E. Household agricultural and livestock activities

Land ownership rates were low and commercial agricultural activity limited at baseline. About one-fifth of households in each group own land in Uganda, and among those that own land, the average landholding was only about 0.2 hectares (**Table III.5**). About one-third of households grew crops during the most recent rainy season (March–May 2025), and a similar fraction kept livestock in the past six months. Among cultivating households, average crop revenues over the last rainy season were between about 91,000 and 102,000 UGX, while crop-related expenditures were substantially higher, between about 170,000 and 177,000 UGX, resulting in negative average cash profits from crops of between about –68,000 and –85,000 UGX. Similarly, keeping livestock yielded negative cash profits of between about -71,000 and -84,000 UGX over the previous six months among livestock-raising households, after subtracting expenditures from revenues. These negative values for cash profits do not account for the value of self-consumption arising from crop- or livestock-related expenditures, which could be substantial in this context. We did not collect information on the prevalence of self-consumption at baseline but will consider doing so at endline. Overall, these findings indicate that baseline agricultural and livestock activities were small-scale, had low commercial returns, and are well balanced across the three experimental groups.

[8] To calculate the value of business-related assets, we asked respondents about ownership of key household assets that they used for business purposes (for example, transportation equipment, communication and technology items, kitchen equipment, and other large assets or equipment including furniture, a washing machine, a generator, a sewing machine, and solar panels) as well as ownership of a stall for their business. For each item the household owned and used in at least one household business, we asked respondents to estimate the cost to replace the item in its current condition. The value of business-related assets is the total sum of these reported replacement costs of all items owned and used for business purposes.

Table III.5. Household agricultural and livestock activities

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
HH owns land in Uganda (%)	21.4	21.3	21.8	0.1	-0.4	-0.5	0.976
Size of owned land, among HHs that own land (ha)	0.2	0.2	0.2	0.0	0.0	0.0	0.955
HH grew crops in the last rainy season (%)	35.4	36.9	36.6	-1.5	-1.2	0.3	0.837
HH kept livestock in past 6 months (%)	33.8	30.1	32.5	3.7	1.3	-2.4	0.364
Sample size[a]	**631-633**	**633-634**	**609-610**	-	-	-	-
Agricultural outcomes from last rainy season among HHs who grew crops in the last rainy season							
Value of agricultural tools/assets (UGX)	31,406	33,271	37,549	-1,865	-6,143*	-4,278	0.229
Crop revenues (UGX)	101,609	91,338	94,101	10,272	7,508	-2,763	0.711
Crop expenditures (UGX)	169,929	176,535	177,313	-6,607	-7,385	-778	0.888
Crop cash profits (UGX)	-68,319	-85,197	-83,213	16,878	14,893	-1,985	0.527
Sample size	**224**	**234**	**223**	-	-	-	-
Livestock-raising outcomes from past 6 months among HHs who kept livestock in the past 6 months							
Value of current livestock assets (UGX)	282,699	319,076	328,631	-36,377	-45,933	-9,555	0.356
Livestock revenues (UGX)	69,131	84,271	82,399	-15,140	-13,268	1,872	0.302
Livestock expenditures (UGX)	162,416	155,731	166,695	6,685	-4,279	-10,964	0.867
Livestock cash profits (UGX)	-93,285	-71,460	-84,296	-21,825	-8,989	12,836	0.596
Sample size	**214**	**191**	**198**	-	-	-	-

Source: Baseline household survey data.

Note: HH = household; ha = hectares. The last rainy season was the season from March through May 2025. Agricultural tools/inputs includes farm tools, farm equipment, seeds or seedlings, wheelbarrows, and hand carts. Crop profit and livestock profit do not include the value of own consumption. Prior to conducting the analysis, we identified and winsorized outliers for continuous agricultural financial outcomes using the Inter Quartile Range (IQR) method (Dash et al. 2023). The IQR is defined as quartile 3 (Q3) minus quartile 1 (Q1)). Under the IQR method, the upper "fence" for outliers is equal to Q3+1.5*(Q3-Q1) and the lower fence is equal to Q1-1.5*(Q3-Q1). Prior to analysis, we recoded values exceeding the upper fence to the upper fence and, for outcomes with negative values such as profit, we additionally recoded values exceeding the lower fence to the lower fence.

[a] The sample sizes for the size of owned land are lower than what is reported in row five of the table because land size is conditional on land ownership. For this indicator, the sample sizes are 120, 127, and 126 for groups 1, 2, and 3, respectively.

***/**/*: Difference between means is statistically significant at the .01/.05/.10 level.

F. Household cash stocks and wealth

Household debt is more common and larger in value than household savings, while many households do not have bank accounts. Between 56 and 64 percent of households reported having debt at baseline and the average value of debt among all households was between 124,000 and 142,000 UGX (**Table III.6**). Between 31 and 34 percent of households reported having any savings, with average

savings balances of only between about 44,000 and 54,000 UGX among all households. About 20 percent of households reported being owed money by others outside the household, with an average outstanding amount of 33,000 to 39,000 UGX among all households. Only between 27 and 32 percent of households reported having a bank account. There are a few differences in these financial characteristics across the three experimental groups, but these are modest and only marginally statistically significant.

Household wealth, measured using a composite wealth index based on household assets and dwelling characteristics, is broadly similar across groups. To measure household wealth, we constructed a household wealth index following the Demographic and Health Surveys (DHS) wealth index construction methodology for Uganda using principal components analysis (DHS Program, 2016).[9] We then determined cut points for wealth quartiles based on the distribution of households in the control group and assigned all households in the three experimental groups to a quartile using these cut points. About one-quarter of households in each experimental group fall into each of the four wealth quartiles defined using the control group distribution, which demonstrates good balance across the three groups. The only noteworthy difference is that there are slightly more cash-plus households in the highest wealth quartile compared to control households, but this difference is modest (5 percentage points) and only statistically significant at the 10 percent level (**Table III.6**).

Table III.6. Household cash stocks and wealth

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
HH has debt (%)	57.8	55.5	63.7	2.2	-6.0*	-8.2*	0.010**
HH debt (UGX)	142,485	123,992	147,319	18,493	-4,834	-23,326*	0.118
HH has savings (%)	33.8	30.9	32.5	2.9	1.3	-1.6	0.544
HH savings (UGX)	53,836	44,300	47,558	9,536*	6,278	-3,258	0.247
HH has a bank account (%)	32.4	26.0	27.2	6.4*	5.2*	-1.2	0.027**
HH is owed money by others (%))	20.5	20.2	19.2	0.3	1.3	1.0	0.839
Money owed to HH (UGX)	38,908	35,644	32,743	3,264	6,164	2,900	0.625
HHs in each control group wealth index quartile (%):							
Lowest quartile	22.4	25.2	25.1	-2.8	-2.6	0.2	0.427
Second quartile	24.0	24.8	24.9	-0.8	-0.9	-0.2	0.924

[9] We also attempted to measure household income, but the reported values were implausibly low relative to household consumption expenditures. This is consistent with a large body of literature—for example, Deaton (1997), Deaton and Grosh (2000), and Deaton and Zaidi (2002)—that notes that incomes in low-income settings are often highly volatile and difficult to measure accurately, leading to substantial under-reporting in household surveys. Therefore, we focus on expenditures (discussed next) as our primary measure of economic welfare, with this wealth index as a secondary measure. Both these measures are more reliable proxies for long-run living standards than self-reported income.

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
Third quartile	23.2	23.0	25.1	0.2	-1.9	-2.1	0.646
Highest quartile	30.3	27.0	24.9	3.4	5.4*	2.1	0.097*
Sample size	**632-633**	**631-634**	**608-610**	-	-	-	-

Source: Baseline household survey data.

Note: The household wealth index was constructed following the Demographic and Health Surveys wealth index construction methodology for Uganda using principal components analysis (DHS Program, 2016). The quartiles are constructed based on the control group. Prior to conducting the analysis, we identified and winsorized outliers for household debt, household savings, and money owed to the households using the Inter Quartile Range (IQR) method (Dash et al. 2023). The IQR is defined as quartile 3 (Q3) minus quartile 1 (Q1)). Under the IQR method, the upper "fence" for outliers is equal to Q3+1.5*(Q3-Q1). Prior to analysis, we recoded values exceeding the upper fence to the upper fence.

***/**/*: Difference between means is statistically significant at the .01/.05/.10 level.

G. Household consumption expenditure

Average monthly household consumption expenditure was between about 539,000 and 561,000 UGX at baseline, driven primarily by expenditure on food followed by fuel and utilities (Table III.7). This total monthly expenditure, another key primary outcome for this study, represents about 15 percent of the total cash transfer (3.7 million UGX) that households will receive through the program. Food accounted for the largest share of expenditure, with households spending an average of between about 356,000 and 377,000 UGX per month on food, equivalent to about two-thirds of total consumption. This was followed by average monthly spending of between about 47,000 and 51,000 UGX on fuel and utilities. Average monthly expenditures on personal care, education, housing/land and household assets, and health/medical care were smaller, ranging between about 20,000 and 30,000 UGX. Average spending on transportation and financial expenses (including debt repayment and sending money to friends or family) was even lower. Overall consumption expenditures and patterns by category are similar across experimental groups, with only one modest baseline difference (health and medical expenditure) that is statistically significant at the five percent level for the cash-only versus control group comparison.

Table III.7. Household consumption expenditure

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
Total monthly HH consumption expenditure (UGX)^	560,839	554,154	538,640	6,685	22,199	15,513	0.522
Monthly HH consumption expenditure, by category (UGX):							
Food	376,840	373,568	355,720	3,273	21,121	17,848	0.310
Fuel and utilities	49,556	50,559	47,277	-1,003	2,278	3,281	0.387

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
Personal care	29,763	30,119	30,458	-356	-695	-339	0.900
Education	27,936	25,680	26,327	2,256	1,609	-647	0.412
Housing, land investment, and HH assets	22,266	20,956	20,937	1,310	1,328	18	0.631
Health and medical care	21,338	19,748	23,892	1,590	-2,554	-4,143**	0.073*
Transportation	15,246	15,295	15,844	-48	-598	-549	0.904
Financial	12,616	12,664	12,578	-47	38	85	0.997
Other	5,277	5,565	5,606	-288	-329	-41	0.712
Sample size	**633**	**634**	**610**	-	-	-	-

Source: Baseline household survey data.

Note: HH = household. Other household consumption expenditure includes entertainment, gambling, alcohol, tobacco, social and religious expenses, and any other expenditures not otherwise categorized. Prior to conducting the analysis, we identified and winsorized outliers for expenditures by category using the Inter Quartile Range (IQR) method (Dash et al. 2023). The IQR is defined as quartile 3 (Q3) minus quartile 1 (Q1)). Under the IQR method, the upper "fence" for outliers is equal to Q3+1.5*(Q3-Q1). Prior to analysis, we recoded values exceeding the upper fence to the upper fence.

^ Shaded tan rows indicate primary outcomes of interest.

***/**/*: Difference between means is statistically significant at the .01/.05/.10 level.

H. Household living conditions

More than two-thirds of households reported owning the dwelling where they live, have electricity, have access to an improved water source, and use an improved sanitation facility. At baseline, between 69 and 70 percent of households in all three groups reported owning the dwelling where they currently reside and between 68 and 71 percent had access to electricity, including solar power (**Table III.8**). Between 80 and 81 percent of households in each group had access to an improved water source and between 72 and 74 percent used an improved sanitation facility, as defined by WHO standards for safely managed water and sanitation (WHO 2025). There are no statistically significant differences across the three experimental groups in dwelling ownership, access to electricity, improved water, or improved sanitation. At endline, we will assess whether the program led participants to improve these conditions (for example, by investing in a solar panel or in sanitation). Reported access to electricity and improved sanitation facilities among the study sample is higher than for the Nakivale refugee population as a whole based on external data. Those data suggest that only 39 percent of all refugees in Nakivale have access to electricity or solar lighting in their dwelling and only 49 percent use an improved sanitation facility (FSNA 2025). These differences could reflect the demographic differences between the study sample and Nakivale population (as discussed in Section A), different survey measurement approaches, or a

combination of both.[10] Access to an improved water source among study households, on the other hand, is similar to settlement-level access to a protected water source (85 percent; FNSA 2025).

Table III.8. Household living conditions

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
HH owns dwelling where residing (%)	68.9	68.4	70.3	0.5	-1.3	-1.8	0.780
Dwelling has electricity (%)	71.1	68.3	69.8	2.8	1.3	-1.5	0.557
HH has access to an improved water source (%)	79.9	80.6	80.3	-0.7	-0.4	0.3	0.957
HH has an improved sanitation facility (%)	71.7	71.5	74.1	0.3	-2.4	-2.6	0.519
Sample size	**628-633**	**621-634**	**595-610**	-	-	-	-

Source: Baseline household survey data.

Notes: Electricity includes solar power. An improved water source is defined as those that are likely to be protected from outside contamination, and from fecal matter in particular. Improved water sources include pipped connections, public standpipes, boreholes, protected dug wells, protected springs, and rainwater collection. Unimproved water sources include unprotected wells, unprotected springs, surface water, vendor-provided water, bottled water, and tanker truck-provided water (WHO, 2025). Improved sanitation facilities are defined as those that hygienically separate human waste from human contact. Improved sanitation includes flush or pour-flush to piped sewer system, septic tank pit latrines, ventilated-improved pit latrines, or pit latrines with slab or composting toilets. Shared or public-use sanitation facilities are not considered to be improved. Also, flush or pour-flush to elsewhere, pit latrines without slabs, bucket latrines, or open defecation are not considered to be improved sanitation (WHO, 2025).

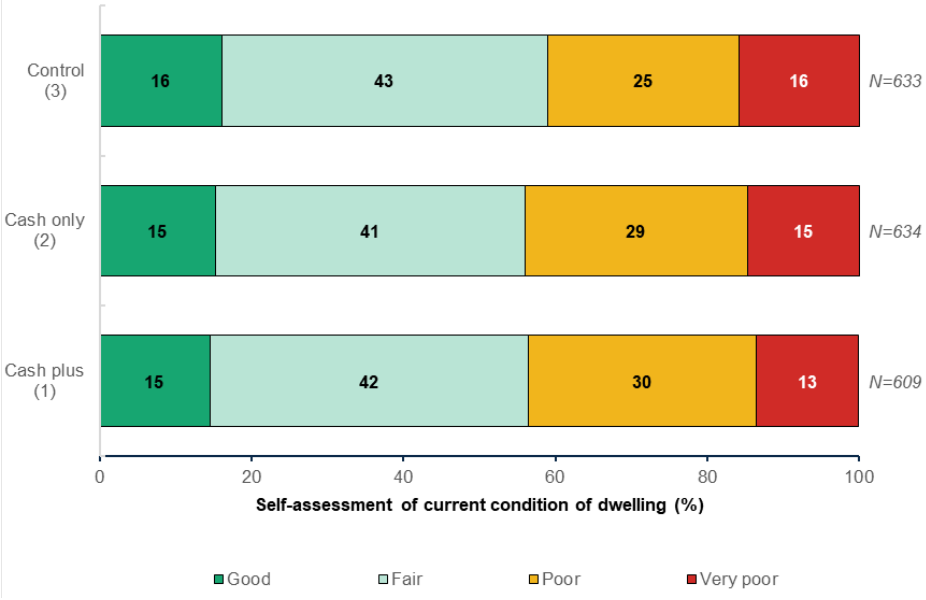
***/**/*: Difference between means is statistically significant at the .01/.05/.10 level.

Self-assessed dwelling quality was typically rated as fair or poor by respondents. We asked respondents to assess the quality of their dwelling because IMPACT Initiatives has successfully used a similar self-assessment approach in other refugee settlement surveys as a proxy for improvements in living standards over time, which may not be fully captured by observable dwelling characteristics and other directly measured living conditions. Across the three experimental groups, between about 41 and 43 percent of households rated their dwelling as being in "fair" condition, between 25 and 30 percent as "poor," and between 13 and 16 percent as "very poor," with only between 15 and 16 percent rating their dwelling as "good" (**Figure III.7**). These ratings were similar across the three experimental groups.

[10] In our baseline survey, we asked respondents if their dwelling had electricity, including solar, whereas other surveys including the FSNA instead ask about the primary source of lighting in the dwelling. We will consider revising this question at endline. In addition, for the approximately 12 percent of households in our baseline survey that reported using a sanitation facility that flushes to a pit latrine, we did not capture whether the pit latrine is improved or unimproved, which determines whether the facility is considered "improved". In the analysis, we coded all sanitation facilities that flush to a pit latrine as improved sanitation facilities, which might have resulted in us over reporting improved sanitation rates. If we instead consider all these "flush to pit latrine" facilities to be unimproved, the percentage of households with access to improved sanitation drops to about 60 percent, but remains balanced across the three groups. At endline, we will revise the survey instrument to differentiate between different types of "flush to pit latrine" facilities.

Investments in housing, which were common in the GiveDirectly RCT in Kiryandongo (IDInsight, 2022), could plausibly result in changes to these ratings at endline.

Figure III.7. Self-assessment of household dwelling condition



Source: Baseline household survey data.

Note: There are no statistically significant differences between the three groups.

I. Household livelihood coping strategies

Most households relied on stress and crisis coping strategies in the past 30 days to meet essential needs, indicating high levels of economic stress at baseline. The livelihoods coping strategies index (WFP, 2023) is based on a set of context-relevant coping strategies that are categorized from "stress" (least severe) to "crisis" (moderately severe), to "emergency" (most severe). The index, which summarizes the most severe coping strategy reportedly used by the household in the past 30 days on a scale from 1 (none) to 4 (emergency), averaged about 2.5 or 2.6, corresponding to stress or crisis coping levels (**Table III.9**). Between about 69 and 74 percent of households reported using at least one stress coping strategy in the past 30 days, such as selling household assets, borrowing money, spending savings, or selling/exchanging in-kind assistance, reflecting reduced capacity to manage future shocks. Between 54 and 56 percent reported using at least one crisis coping strategy, such as selling productive assets or means of transport, reducing health expenditure, or withdrawing children from school, reflecting reduced future productivity. Finally, between 17 and 23 percent reported using the most severe emergency coping strategies, such as selling one's dwelling or land, begging or scavenging, or engaging in high-risk income-generating activities. There is a slightly higher prevalence of more severe coping strategies in the control group relative to the cash plus and cash only groups, but these differences are modest and only statistically at the ten percent level. Overall, these results show that many households in all three experimental groups were employing stress and crisis strategies to cover essential needs.

Table III.9. Household livelihoods coping strategies for essential needs

	Means			Differences			
	Cash plus (1)	Cash only (2)	Control (3)	Cash plus vs. cash only (1 vs. 2)	Cash plus vs. control (1 vs. 3)	Cash only vs. control (2 vs.3)	Omnibus p-value
Livelihoods coping strategies index (range 1-4)	2.5	2.6	2.6	-0.1	-0.1*	0.0	0.058
HH exhibits stress coping strategies (%)	69.0	70.8	73.8	-1.8	-4.7*	-3.0	0.178
HH exhibits crisis coping strategies (%)	53.7	56.0	55.1	-2.3	-1.4	0.9	0.714
HH exhibits emergency coping strategies (%)	16.7	21.3	23.1	-4.5*	-6.4*	-1.8	0.016
Sample size	**633**	**634**	**610**	-	-	-	-

Source: Baseline household survey data.

Notes: HH = household. The livelihoods coping strategies are constructed following the World Food Programme's guidance on livelihoods coping strategies for essential needs (WFP, 2023). Exhibiting a stress coping strategy (selling household assets, borrowing money, spending savings, or selling/exchanging in-kind assistance) indicates a decrease in the household's capacity to manage future shocks. Crisis coping strategies (selling productive assets or means of transport, reducing health expenditure, or withdrawing children from school) and emergency coping strategies (selling dwelling or land where residing, begging or scavenging, or engaging in high-risk income-generating activities) reduce the households' future productivity with an increasing intensity passing from crisis to emergency. The index value assigns each household to an overall coping strategy severity level, with 1 being the lowest and 4 being the highest: 1 indicates no coping strategies exhibited; 2 indicates stress coping strategies exhibited but no crisis or emergency coping strategies exhibited; 3 indicates crisis coping strategies exhibited but no emergency coping strategies exhibited; and 4 indicates emergency coping strategies exhibited.

***/**/*: Difference between means is statistically significant at the .01/.05/.10 level.

IV. Conclusion and next steps

In this concluding section we summarize the key findings from the baseline survey and describe the next steps for the evaluation.

A. Conclusion

Overall, the baseline findings suggest that random assignment was successful in creating equivalent experimental groups at baseline. Differences in baseline characteristics and outcomes between experimental groups or across all groups were almost all small and statistically insignificant, with the few modest and marginally significant differences no more than one would expect by chance. In the endline analysis, we will include baseline controls in a regression framework to avoid bias caused by chance baseline differences and improve the precision of our impact estimates. We will also contextualize estimated endline impacts relative to the baseline values in this report. For the three primary outcomes, these baseline values suggest substantial room for improvement in non-agricultural business ownership (about 50 percent at baseline), average non-agricultural business profits (positive but only about 100,000 UGX), and monthly household consumption expenditure (about 550,000 UGX).

B. Next steps

We will conduct the first round of qualitative data collection in mid-2026, which will include key informant interviews with program implementers and focus group discussions with refugee beneficiaries. A second round of qualitative data collection in mid-2027 will include key informant interviews with coordinating actors, as well as focus group discussions with refugee beneficiaries, refugee community leaders, and host community leaders. The qualitative data collection effort will enable us to understand the implementation of the cash transfer and complementary activities, including fidelity of implementation, challenges with or barriers to implementation, community dynamics, and any factors enabling or inhibiting uptake of complementary activities and operations of household enterprises. The findings from the first round of qualitative data collection will be shared in a midline qualitative findings report in the second half of 2026, and the findings from the second round will be incorporated in the final study report described below.

In late 2027, about two years after households in the two treatment groups receive their cash transfers and before the households in the control group receive their cash transfers, we will conduct endline survey data collection with the same sample of refugee households surveyed at baseline. The endline survey will gather data on similar outcomes measured at baseline to assess the impacts of the cash-only and cash-plus programs. In the endline analysis, we will use the baseline data to adjust for small baseline differences across experimental groups that arose by chance to avoid bias and enhance the precision of our impact estimates. We will present the findings from the endline survey in an endline report in early 2028.

References

Banerjee, A., Duflo, E., Karlan, D., and Zinman, J. (2022). "Unpacking a multi-faceted program to build sustainable income for the very poor." World Development, 146, pp. 105553.

Blattman, C. and Annan, J. "Can Employment Reduce Lawlessness and Rebellion? A Field Experiment with High-risk Men in a Fragile State." American Political Science Review, vol. 110, no. 1, 2016, pp. 1–17.

Blattman, C., Fiala N., and Martinez, S. "Generating Skilled Self-Employment in Developing Countries: Experimental Evidence from Uganda." The Quarterly Journal of Economics, vol. 129, no. 2, 2014, pp. 697–752.

Blattman, C., Green E.P., Jamison J., Lehmann, M.C., and Annan, J. "The Returns to Microenterprise Support among the Ultrapoor: A Field Experiment in Postwar Uganda." American Economic Journal: Applied Economics, vol. 8, no. 2, 2016, pp. 35–64.

Brune, L., Filmer, D., and Gertler, J.P. (2023). "The impact of a graduation program on livelihoods in refugee and host communities in Uganda." Journal of Development Economics, 145, pp. 283-297.

Dash, C. S. K., Behera, A. K., Dehuri, S., and Ghosh A. (2023). "An outliers detection and elimination framework in classification task of data mining." *Decision Analytics Journal*, 6, 100164.

Deaton, Angus. (1997). *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*. Johns Hopkins University Press for the World Bank.

Deaton, A., and Grosh, M. (2000). "Consumption." In *Designing Household Survey Questionnaires for Developing Countries: Lessons from Ten Years of LSMS Experience*, ed. Margaret Grosh and Paul Glewwe. World Bank.

Deaton, A., and Zaidi, S. (2002). *Guidelines for Constructing Consumption Aggregates for Welfare Analysis*. LSMS Working Paper 135, World Bank.

DHS Program (2016). Uganda Demographic and Health Survey 2016: Wealth Index. [Online]. Available at: https://dhsprogram.com/methodology/survey/survey-display-504.cfm [Accessed 10 October 2025].

Gupta, P., Sulaiman, M., and M. Shah (2024). "Cash transfers amid shocks: A large, one-time, unconditional cash transfer to refugees in Uganda has multidimensional benefits after 19 months." Journal of Humanitarian Assistance, 6(2), pp. 50-64.

IDinsight (2022). GiveDirectly Uganda endline report: Unconditional cash transfers in Kiryandongo Refugee Settlement. [Online]. Available at: https://idinsight.org/reports/ [Accessed 23 February 2025].

Ministry of Health, Ugan Bureau of Statistics, Office of the Prime Minister, Ministry of Agriculture, Animal Industry and Fisheries, WFP, UNHCR and UNICEF (2025). *The Food Security and Nutrition Assessment in Refugee Settlements and Kampala, 2025*. Kampala, Uganda.

OANDA (2025). *FX Data Services – Historical Currency Converter*. [Online]. Available at: https://fxds-hcc.oanda.com/# [Accessed 23 February 2025].

Roelen, K., Pellerano, L., and R. Sabates-Wheeler (2017). "How to make "cash plus" work: Linking cash transfers to services and sectors." Development Policy Review, 35(6), pp. 829-856.

Sedlmayr, R., Shah, A., and Sulaiman, M. (2020). "Cash-plus: Poverty impacts of alternative transfer-based approaches." Social Protection & Human Development, 12(1), pp. 1-23.

Uganda Bureau of Statistics (UBOS) (2025). *County and Subcounty Profiles – Ankole Sub Region (National Population and Housing Census 2024, Volume 2).* [Online]. Available at: https://www.ubos.org/wp-content/uploads/2025/06/Ankole-Sub-Region-Census-2024-Profile-Report.pdf [Accessed 11 December 2025].

UNHCR (2023). Uganda—Refugee statistics November 2023. [Online]. Available at: https://www.unhcr.org/uganda [Accessed 23 February 2025].

ULearn (2023). The Realities of Self-Reliance Within the Ugandan Refugee Context. [Online]. Available at: https://ulearn.org/reports [Accessed 23 February 2025].

ULearn (2022). Labour market assessments covering refugee hosting districts in Uganda: A desk review. [Online]. Available at: https://ulearn.org/reports [Accessed 23 February 2025].

Wager, S., and Athey, S. "Estimation and inference of heterogeneous treatment effects using random forests." Journal of the American Statistical Association, vol. 113, no. 523, 2018, pp. 1228-1242.

WFP (2023). Uganda Country Strategic Plan (2018–2025): Country Portfolio Budget Revision 5. [Online]. Available at: https://docs.wfp.org/api/documents/WFP-0000152115/download/ [Accessed 10 October 2025].

WHO (2025). Improved sanitation facilities and drinking-water sources. [Online]. Available at: https://www.who.int/data/nutrition/nlis/info/improved-sanitation-facilities-and-drinking-water-sources [Accessed 10 October 2025]

World Bank (2025). *PPP conversion factor, private consumption (LCU per international $) – Uganda (PA.NUS.PRVT.PP).* [Online]. Available at: https://data.worldbank.org/indicator/PA.NUS.PRVT.PP?locations=UG [Accessed 12 December 2025].