Building Business Networks to Strengthen Refugee Economic and Social Integration

Re:BUiLD Wave 2 RCT Evaluation Report

ipl immigration policy lab

REBUILD Boosting Livelihoods

INTERNATIONAL RESCUE COMMITTEE

guide2


IRC Facilitator
Handbook

Building Business Networks to Strengthen Refugee Economic and Social Integration

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Re:BUiLD Wave 2 RCT Evaluation Report

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1. Project background

In partnership with the International Rescue Committee (IRC), the Immigration Policy Lab at Stanford University and the Georgetown University Initiative on Innovation, Development, and Evaluation conducted a randomized controlled trial (RCT) to evaluate the second wave of the "Refugees in East Africa: Boosting Urban Innovations for Livelihoods Development" (Re:BUiLD) program.

The second wave of the Re:BUiLD program supported over 8,000 refugees and hosts in Kampala, Uganda, and Nairobi, Kenya. Refugee and host community members in the program received an unconditional business grant; and some participants were randomly assigned to business networking groups to connect entrepreneurs within the cities and build business networks. The program explores if building different types of business networks are more effective at improving economic and social outcomes for program participants varying if the networking groups cut across or are formed within nationality groups (mixed vs same nationality groups) and varying if the groups are aimed at building up small intensive relationship with the same entrepreneurs or connect many different entrepreneurs across the city (fixed vs rotating groups). The study and evaluation – accompanying the Re:BUiLD program – tracks the outcomes of 8,005 study participants who answer surveys about their economic and social well-being before, during, and after the program implementation period. Figure 1 highlights how many study participants are tracked across cities and across treatment arms.

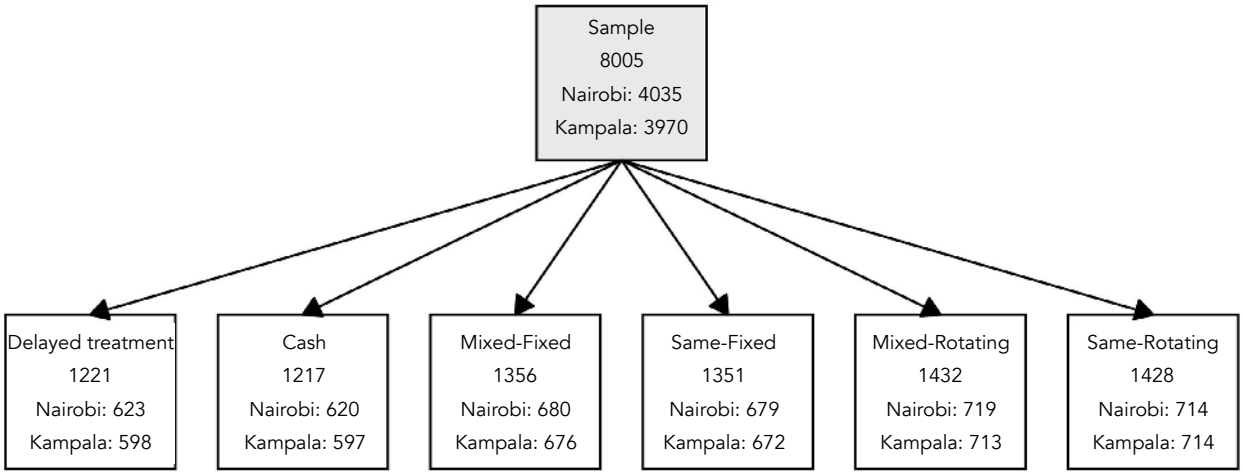


Figure 1: Treatment arms in the Re:BUiLD RCT

This report summarizes the overall findings from a baseline (before intervention start), a midline (six months after the intervention) and an endline (eleven months after the intervention) data collection for the second wave of the Re:BUiLD RCT study in Kenya and Uganda. The endline survey closing the project was conducted between October 15, 2025 and December 6, 2025.

Overall, the business grants had positive effects on the economic outcomes of study participants, increasing their business ownership rates and revenues across midline and endline. The business grants increased life satisfaction but did otherwise not shape social cohesion or psychological wellbeing. We find consistent evidence that grant recipients connect more with other entrepreneurs and build up business networks. However, we do not find that the additional networking intervention generates positive impacts beyond the effects of the business grants. Participants in the network groups see only limited increases in economic indicators, social cohesion, or psychological wellbeing compared to cash recipients. We

only find short-term effects increasing business collaborations, business hours and customer numbers for participants in the networking groups. With regards to the question which network groups may be most effective, we find weak differences between types of groups but some indication that rotating groups may increase knowledge circulation and business collaborations.

1.1 Notes on interpretation

The following sections present regression analyses to assess the impact of the cash grants, the cash grants with the networking intervention, and the different networking arms on economic, social and psychological outcomes.The regressions follow the Wave 2 pre-analysis plan for the estimation strategy. However, the analysis is not only limited to the comparisons and tests proposed in the Pre-Analysis Plan (PAP).

For all comparisons, we present the effect of the cash (compared to delayed control) and the network intervention (compared to cash) at endline, at midline, and as a pooled estimate across both rounds. In all regressions, we include a vector of baseline controls chosen through double lasso regression that we interact with the treatment indicator. We also include baseline outcomes and treatment-zone fixed effects in the regression. We use robust standard errors clustered on the individual level and weight observations using entropy balancing. When outcomes are weakly greater than zero and unbounded from above, we use an Poisson Quasi-Maximum Likelihood Estimate rather than an Ordinary Least Square Estimate. The regression tables report regression coefficients and standard errors. Next to each coefficient, a star (*) indicates statistical significance at the 5% level. When we report substantive effect sizes directly in USD dollar, we report model-adjusted estimates.

Note that the number of observations in the regression varies depending on the comparison groups (e.g. business grant recipients are compared only to the delayed treatment group), depending on the success of reaching the respondents, and depending on the outcome assessed (e.g. business practices as outcome are only recorded for those with a business). We also report standardized effect sizes in Appendix A.4.

1.2 Notes on variable construction

We are interested in the impact of the intervention across four core outcome domains: economic performance, psychological wellbeing, social cohesion, and business networks. In addition, we explore the impact of the RCT on key-performance indicators and the self-reliance of refugees. For all monetary outcomes, we report real values for July 2024 in USD and winsorized at 1st and 99th percentile within survey rounds. If a respondent does not own a business, outcomes are set to 0. We do not otherwise impute missing values for outcomes. For individual questions in Likert scales or categories, we split around the median response. For multi-question indices, we construct the indices and standardize with the delayed treatment group mean and standard deviation. Details on outcome operationalization can be found in Appendix A.1.

2. Sample composition

The study populations consists of 8,005 respondents: 3,970 participants in Kampala and 4,035 participants in Nairobi. The study population is diverse, including refugees and hosts from 10 different nationalities, in particular from the Democratic Republic of Congo (18.6%), from Somalia (9.1%) and from Ethiopia, (10%). The sample includes 57.4% refugees and 56.4% women. All study participants are between 18 and 45 years old. The individuals in this study have on average already spent 11 years in the city. Table 1 provides summary statistics on their socioeconomic conditions and key demographics.

Table 1: Core summary statistics of the sample

Indicator	All	Kampala	Nairobi	Refugees	Hosts	Women	Men
Age	31.3	31.4	31.2	30.8	32	31.7	30.8
	(7.1)	(7.1)	(7)	(7.3)	(6.7)	(7)	(7.1)
Household size	4.6	4.7	4.6	4.7	4.6	5.1	4.1
	(2.6)	(2.7)	(2.6)	(2.7)	(2.5)	(2.4)	(2.7)
Has children under 5 (%)	50.3	45	55.4	44.3	58.3	58.7	39.4
	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Secondary school completed (%)	53.1	54.3	51.8	54.7	50.9	44.7	63.9
	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Self-reported disabled (%)	3.8	4.4	3.3	3.8	4	4.5	3
	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Years in the city	11.1	9.2	12.9	7.4	16	11.7	10.3
	(102.2)	(103.3)	(96.4)	(60)	(116.8)	(104.3)	(98.7)
Rent problems in last 3 months (%)	66.2	61.5	70.8	59.3	75.5	68.1	63.8
	(0.5)	(0.5)	(0.5)	(0.5)	(0.4)	(0.5)	(0.5)
Self-reliance index	3.2	3	3.3	3.1	3.2	3.1	3.2
	(0.6)	(0.6)	(0.6)	(0.7)	(0.6)	(0.6)	(0.7)
Owns business (%)	52.5	47.3	57.5	48.1	58.3	56.9	46.7
	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Business revenue (USD/ 30 days)	106	109	103	107.1	104.5	92.5	123.4
	(226.3)	(258.7)	(188.9)	(229.6)	(221.7)	(191.2)	(263.9)
Business assets (USD)	81.3	95.1	67.7	70.6	95.7	55.4	114.8
	(234.7)	(271.9)	(190.3)	(225.3)	(246.2)	(170.6)	(294.6)
Business network size	4.2	4.5	3.9	3.7	5	4.1	4.3
	(4)	(4.2)	(3.7)	(3.8)	(4.1)	(4)	(4)
Observations	8005	3970	4035	4599	3406	4517	3488

Means and percentages at baseline. Standard deviations in parentheses.

The sample has different experiences in running businesses: Around 52% owned a business at baseline. Typical businesses have low revenues (ca. 106 USD per month). Most commonly, individuals are hawking, run clothing or shoe businesses, or sell groceries and food.

3. Survey success and attrition

At the endline (11 months after the intervention), we successfully reached 7,414 of the original 8,005 respondents, corresponding to a survey success rate of 92.62%. This is only a small reduction of surveys in comparison to the midline, which had a completion rate of 92.82%. The vast majority of respondents were interviewed in person but 799 individuals were surveyed over the phone (compared to 567 at midline). Table 2 displays the survey completion rates per round and city. While we were able to survey 94.01% of respondents in Kampala, the survey completion rate of 91.25% in Nairobi is slightly lower.

Table 2: Interview completion rates per round, per city

	Respondents	Completion rate	Nairobi	%	Kampala	%
Baseline	8005	100.00	4035	100.00	3970	100.00
Midline	7430	92.82	3717	92.12	3713	93.53
Endline	7414	92.62	3682	91.25	3732	94.01

Figure 2 shows that in particular Somali, Eritrean and Ethiopian respondents were harder to survey at endline. Sudanese, Somali and Kenyans were tracked more often over the phone as they were no longer in Nairobi/Kampala or it was impossible to reach them otherwise. Despite differences in successfully tracking specific nationalities, the sample at endline is similar to the sample at baseline: the percentage of women and refugees in the sample has hardly changed (see Table 3).

Table 3: Change in sample size and the percentage of women, refugees, and business owners between baseline and endline

City	Round	N	% Women	% Refugee	% Business owners
Kampala	Baseline	3970	54.46	64.31	47.33
Kampala	Midline	3713	54.46	63.10	66.95
Kampala	Endline	3732	54.53	63.00	62.91
Difference	(end- to baseline)	-238	0.07	-1.31	15.58
Nairobi	Baseline	4035	58.36	50.71	57.50
Nairobi	Midline	3717	59.08	49.56	77.19
Nairobi	Endline	3682	59.10	48.86	77.21
Difference	(end- to baseline)	-353	0.73	-1.85	19.72

There is no strong differential attrition across treatment groups, meaning that individuals in one of the network arms were equally likely to be surveyed as those that have not yet received the cash grant (delayed treatment group) or those that have only received the cash grant (cash group). While the delayed treatment group is most likely to respond to the survey (see Figure 3), Table 4 formally assesses if there is differential attrition by regressing whether a person has been surveyed in any post-treatment period on their treatment status, including city fixed effects and covariates. We find that across both cities, there is no differential attrition. However, in Nairobi, individuals assigned to same-fixed networking groups were slightly less likely to be interviewed. Overall, there is no strong concern about differential attrition in the sample that could bias the results.

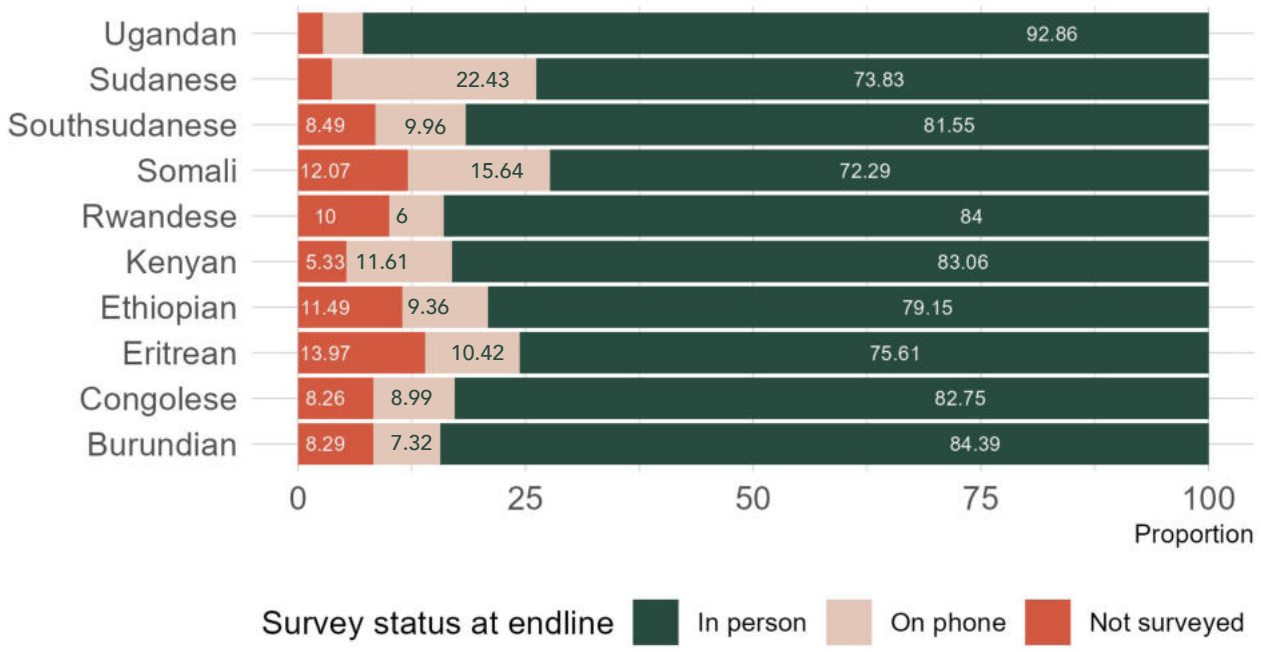


Figure 2: Survey success rate across nationalities in the sample at endline

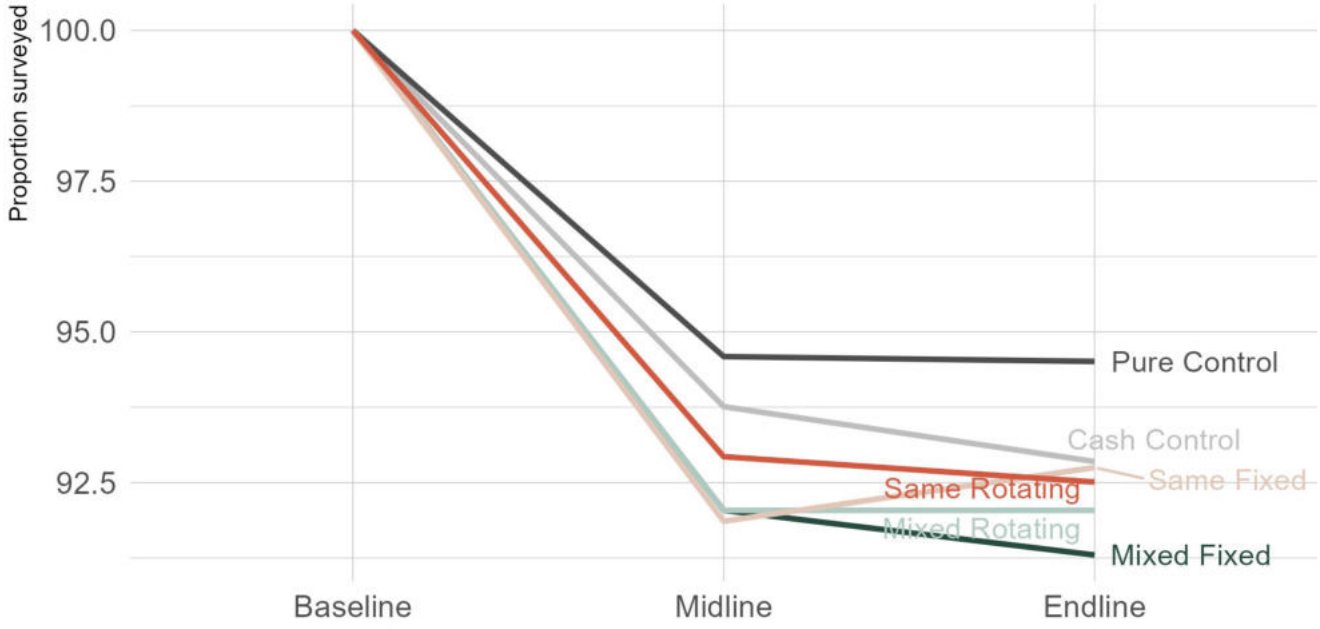


Figure 3: Survey success rate across rounds and treatment groups

Table 4: Attrition: surveyed in any post-treatment period in whole sample and per city

	Has been surveyed	(in Nairobi)	(in Kampala)
Cash	−0.003	−0.013	0.006
	(0.008)	(0.012)	(0.010)
Mixed-fixed	−0.004	−0.016	0.008
	(0.008)	(0.012)	(0.010)
Mixed-rotating	0.002	−0.003	0.007
	(0.008)	(0.012)	(0.010)
Same-fixed	−0.010	−0.025*	0.005
	(0.008)	(0.012)	(0.010)
Same-rotating	−0.010	−0.019	0.003
	(0.008)	(0.012)	(0.012)
Num.Obs.	8005	4035	3970
R2	0.024	0.031	0.029
RMSE	0.20	0.21	0.18
Covariates	Yes	Yes	Yes
Weighted	Yes	Yes	Yes
Sample	All	Nairobi	Kampala

* p <0.05

4. Effects on economic and business performance

4.1 Effect of cash on primary outcomes

We start with the effect of the business grant on economic outcomes compared to the delayed treatment group, which received the grant after the endline survey. In Table 5, we focus on the primary business outcomes: ownership of a business, business revenues (in real USD), the adoption of business practices that indicate learning and information, and the adoption of collaborative business practices. The table reports the effects of Cash (compared to delayed treatment) at midline, at endline, and pooled across both rounds based on the regressions in Table A2 in the appendix. Across the rounds, Cash has a significant impact on business ownership and revenues but not on business practices or collaborative business behavior. Box 4.2 provides substantive interpretations in dollar changes.

Table 5: Effect of Cash (compared to delayed treatment) at midline, endline, and pooled across both rounds

Effect	Term	Biz ownership	Biz revenue	Biz practices	Biz collaboration
Midline	Cash	0.179*	0.538*	-0.021	-0.030
		(0.02)	(0.08)	(0.06)	(0.04)
Endline	Cash	0.117*	0.415*	0.025	-0.015
		(0.02)	(0.08)	(0.06)	(0.04)
Pooled	Cash	0.148*	0.476*	0.002	-0.022
		(0.02)	(0.07)	(0.05)	(0.03)
Estimation		OLS	PQMLE	OLS	OLS
Baseline	Delayed treatment	0.5	100.34	0	0
Midline		0.54	126.58	0	0
Endline		0.58	150.42	0	0

In Figure 4, we describe the rate of business ownership and average revenues for the treatment groups across all data collection rounds. Focusing on the cash group (orange) and the delayed treatment group (grey), we see that the business grant group benefited from the cash at midline in terms of business ownership and profits. The overall positive effect of the cash compared to the delayed treatment group slows down at endline although cash recipients are still better off than the delayed treatment group.

Regarding changes in business practices or collaborative behavior, Figure 5 documents that there is no clear difference emerging across the rounds between the cash recipients and the delayed treatment group.

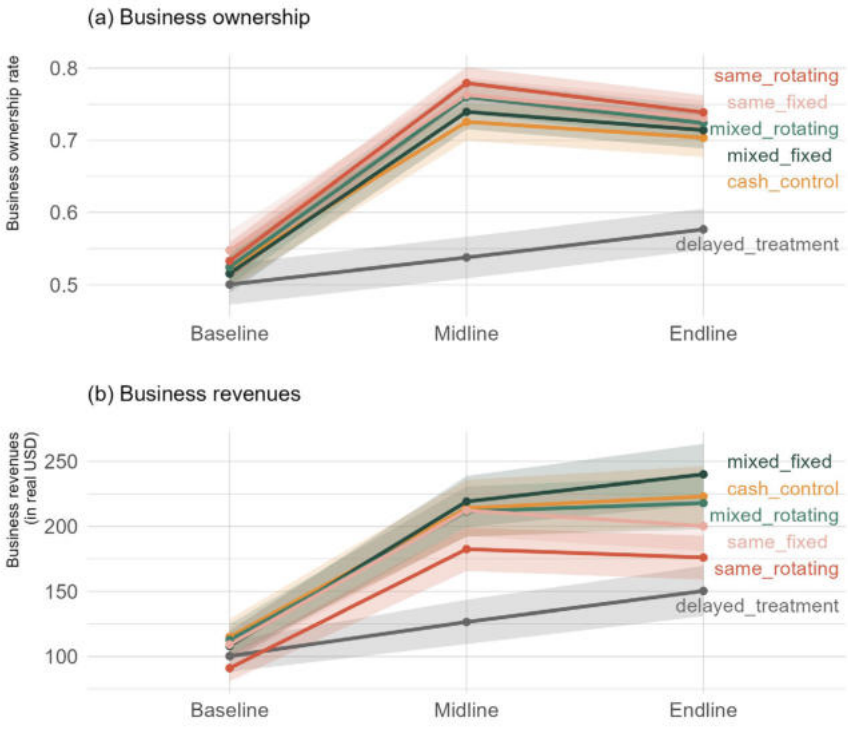


Figure 4: Mean business ownership and revenues for treatment groups over all rounds

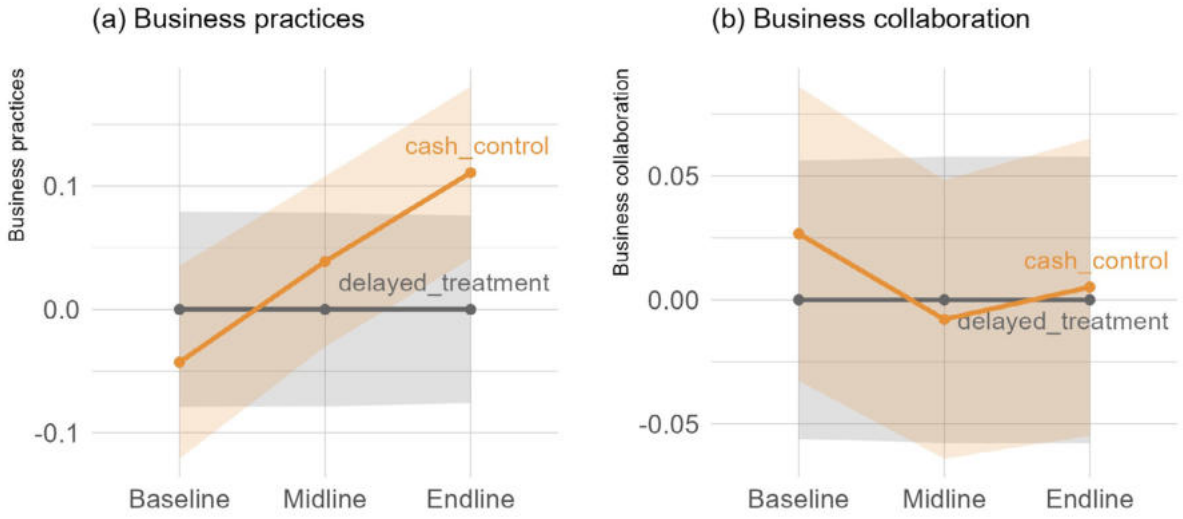


Figure 5: Mean business practices and collaborations for cash and delayed treatment across rounds

4.2 Effect of cash+network on primary outcomes

What is the additional impact of the network intervention on primary economic outcomes?

Table 6 focuses on the effect of Cash+Network compared to cash recipients across the rounds. We generally do not find that the network intervention has an additional impact on business indicators compared to cash. However, those that that participate in the business network groups report more collaborative behavior in their businesses and they report more business practices that indicate learning at endline. The detailed regression models can be found in Table A3 in the appendix.

Table 6: Effect of Cash+Network (compared to cash) at midline, endline, and pooled across both rounds

Effect	Term	Biz ownership	Biz revenue	Biz practices	Biz collaboration
Midline	Cash+Network	0.027	0.064	0.099	0.086*
		(0.01)	(0.06)	(0.05)	(0.03)
Endline	Cash+Network	0.021	0.016	0.119*	0.091*
		(0.01)	(0.06)	(0.05)	(0.03)
Pooled	Cash+Network	0.024	0.040	0.109*	0.089*
		(0.01)	(0.05)	(0.04)	(0.03)
Estimation		OLS	PQMLE	OLS	OLS
Baseline	Cash	0.5	109.55	-0.05	0.03
Midline	Cash	0.72	211.89	0.03	-0.02
Endline	Cash	0.7	222.39	0.11	0

When we plot the effect of Cash+Network over time in Figure 6, we can see that while we identify a positive effect of Cash+Network on business collaborations and practices, this effect is small in substantive terms.

Figure 6: Mean economic outcomes for cash and cash+network across rounds

Based on the regressions in Table A4, Table 7 differentiates between the different networking treatment arms, based on the intensity of interaction and the heterogeneity of group members in terms of nationality, and across the different data collection rounds. We find that all groups except for mixed-fixed groups – in which a small group of different nationalities is meeting every week – increase collaborative behavior in businesses. All groups except for same-fixed groups – a small group of entrepreneurs from the same nationality – increase business knowledge/practices. We do not find strong heterogeneity of the arms for business ownership or revenues. Overall, this is only a weak indication that extensive groups might increase learning of new business practices and the collaboration in businesses more strongly. The overall pattern suggests no systematic advantage of one specific networking groups across outcomes and rounds.

What is the substantive effect of the business grant and the network intervention on business ownership and business revenues at endline?

Business ownership:

- On average, the business grant increases the probability of owning a business at endline by 11.7 percentage points compared to those not receiving the grant. 57.8% of the delayed treatment group own a business at endline while 70.4% of the grant recipients own a business (compared to 50% at baseline).
- On average, the network groups increase the probability of owning a business at endline by 2.1 percentage points compared to those only receiving the grant (not statistically significant). 72.7% of network participants own a business at endline while 70.4% of those only receiving the cash own a business.

Business profits:

- On average, the business grant increases monthly business profits by roughly $19.19 compared to the delayed treatment group. Grant recipients report $67.23 as monthly business profits 11 months after the business grant, compared to $34.07 at baseline (in contrast to the delayed treatment group that reports monthly business profits of $47.41 at endline and $31.01 at baseline).
- On average, the network groups increase business profits by $0.29 (not statistically significant) compared to the cash group (11 months after).

Business revenues:

- On average, the business grant increases monthly business revenues by roughly $58.37 compared to the delayed treatment group. Grant recipients report monthly business revenues of $223.13 at endline (11 months after grant payout) compared to $115.09 in monthly business revenues at baseline (in contrast to the delayed treatment group that reports monthly business revenues of $150.42 at endline and $100.34 at baseline).
- On average, the network groups increase business revenues by $2.12 (not statistically significant) compared to the cash group (11 months after).

The presented substantive effect of the intervention in this box represent regression-adjusted treatment effect estimates, derived from the main analysis.

4.3 Secondary outcomes

We also assess the impact of the cash grants and the network intervention on secondary economic outcomes, including business profits, customer numbers, the value of business assets, hours spent on business, non-business related income, and customer diversity. Table 8 summarizes the effect of the business grant and the additional networking intervention on secondary outcomes (based on the regressions in Table A5).

We generally find that grant recipients report higher business profits, business assets, and hours in business. In addition to this positive cash effect, the networking intervention seems to increase customer numbers and hours spent in business in the short term and has some positive impacts on business assets at endline. This suggests that the networking intervention does not directly increase business growth (e.g. profits and revenues) but activates respondents to spend more time and invest more in their businesses.

Table 7: Effect of Treatment Arms (compared to Cash) on Main Outcomes and Mechanisms

		Business outcomes		Psychological wellbeing			Social cohesion		Network		Mechanisms	
Effect	Term	Ownership	Revenue	Satisfaction	Self-efficacy	Trust (host)	Trust (refugee)	Interaction	Centrality	Diversity	Knowledge	Collaboration
Midline	Mixed-Rotating	0.017	0.078	-0.000	-0.008	0.083	0.067	0.009			0.095	0.063
		(0.02)	(0.08)	(0.02)	(0.05)	(0.04)	(0.04)	(0.02)			(0.07)	(0.04)
Endline	Mixed-Rotating	0.019	0.045	-0.027	-0.028	-0.012	0.065	0.005	0.085	0.009	0.133	0.110*
		(0.02)	(0.08)	(0.02)	(0.04)	(0.04)	(0.04)	(0.02)	(0.19)	(0.01)	(0.07)	(0.04)
Pooled	Mixed-Rotating	0.018	0.062	-0.013	-0.018	0.036	0.066	0.007			0.114*	0.087*
		(0.02)	(0.07)	(0.02)	(0.04)	(0.03)	(0.04)	(0.02)			(0.06)	(0.03)
Midline	Mixed-Fixed	0.025	0.075	-0.024	-0.018	-0.024	0.094*	0.008			0.130*	0.033
		(0.02)	(0.07)	(0.02)	(0.05)	(0.04)	(0.04)	(0.02)			(0.06)	(0.04)
Endline	Mixed-Fixed	0.020	0.135	0.002	0.021	0.020	0.014	0.009	0.233	0.001	0.103	0.077
		(0.02)	(0.07)	(0.02)	(0.04)	(0.04)	(0.04)	(0.02)	(0.19)	(0.01)	(0.06)	(0.04)
Pooled	Mixed-Fixed	0.022	0.105	-0.011	0.002	-0.002	0.054	0.009			0.116*	0.055
		(0.02)	(0.06)	(0.02)	(0.03)	(0.03)	(0.03)	(0.02)			(0.05)	(0.03)
Midline	Same-Rotating	0.042*	0.081	0.028	0.059	0.001	0.008	0.014			0.131	0.168*
		(0.02)	(0.08)	(0.02)	(0.05)	(0.05)	(0.05)	(0.02)			(0.07)	(0.04)
Endline	Same-Rotating	0.026	-0.037	0.015	0.023	-0.029	-0.046	-0.001	0.242	0.008	0.165*	0.124*
		(0.02)	(0.08)	(0.02)	(0.04)	(0.05)	(0.05)	(0.02)	(0.22)	(0.01)	(0.07)	(0.05)
Pooled	Same-Rotating	0.034	0.022	0.022	0.041	-0.014	-0.019	0.006			0.148*	0.146*
		(0.02)	(0.07)	(0.02)	(0.04)	(0.04)	(0.04)	(0.02)			(0.06)	(0.04)
Midline	Same-Fixed	0.028	0.091	0.025	-0.003	-0.005	-0.031	0.020			0.073	0.100*
		(0.02)	(0.07)	(0.02)	(0.04)	(0.04)	(0.04)	(0.02)			(0.06)	(0.04)
Endline	Same-Fixed	0.022	-0.023	0.004	0.017	-0.010	-0.002	-0.025	0.131	-0.001	0.109	0.072
		(0.02)	(0.07)	(0.02)	(0.04)	(0.04)	(0.04)	(0.02)	(0.18)	(0.01)	(0.06)	(0.04)
Pooled	Same-Fixed	0.025	0.034	0.014	0.007	-0.007	-0.016	-0.002			0.091	0.086*
		(0.01)	(0.06)	(0.02)	(0.03)	(0.03)	(0.03)	(0.01)			(0.05)	(0.03)

Estimation		OLS	PQMLE	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS
Baseline	Cash mean	0.5	109.55	0.72	0.02	0.08	0.01	0.62	4.24	0.22	-0.05	0.03
Midline	Cash mean	0.72	211.89	0.65	-0.03	-0.02	-0.08	0.62			0.03	-0.02
Endline	Cash mean	0.7	222.39	0.66	0.04	0.05	0	0.64	5.05	0.26	0.11	0

*$p < 0.05$.

Table 8: Effect of Cash (compared to control) and Cash+Network (compared to cash): secondary outcomes

		Business outcomes						Social cohesion	Network		Mechanisms
Effect	Term	Biz profits	Customer	Biz assets	Biz hours	Nonbiz income	Customer diversity	Refugee policies	Network clustering	Network bridges	Referrals
Midline	Cash	0.522*	0.126	0.548*	1.680*	-0.277*	-2.483	0.036			-0.221
		(0.08)	(0.10)	(0.11)	(0.20)	(0.09)	(1.50)	(0.09)			(0.38)
Endline	Cash	0.371*	0.176	0.313*	1.221*	-0.034	-1.720	-0.071	0.008	1.562*	-0.178
		(0.07)	(0.10)	(0.13)	(0.21)	(0.09)	(1.46)	(0.09)	(0.01)	(0.75)	(0.39)
Pooled	Cash	0.446*	0.151	0.431*	1.451*	-0.156	-2.101	-0.017			-0.199
		(0.07)	(0.08)	(0.11)	(0.17)	(0.08)	(1.25)	(0.09)			(0.29)
Midline	Cash+Network	0.067	0.164*	0.156	0.646*	0.041	0.933	0.003			0.297
		(0.06)	(0.07)	(0.08)	(0.17)	(0.08)	(1.23)	(0.08)			(0.31)
Endline	Cash+Network	0.037	0.121	0.234*	0.313	-0.012	-0.469	0.073	0.001	-0.095	0.081
		(0.06)	(0.07)	(0.10)	(0.17)	(0.08)	(1.19)	(0.08)	(0.01)	(0.67)	(0.32)
Pooled	Cash+Network	0.052	0.142*	0.195*	0.479*	0.015	0.232	0.038			0.189
		(0.05)	(0.06)	(0.08)	(0.15)	(0.07)	(1.02)	(0.08)			(0.24)
		PQMLE	PQMLE	PQMLE	OLS	PQMLE	OLS	OLS	OLS	OLS	OLS
Baseline	Control mean	31.01	54.27	82.21	4.5	25.6	50.6	0	0.04	8.49	7.74
Baseline	Cash mean	32.05	50.97	87.41	4.49	24.59	51.57	-0.12	0.04	8.09	8.11
Midline	Control mean	36.97	57.87	118.97	4.8	26.87	52.66	0			6.56
Midline	Cash mean	60.83	65.33	207.2	6.54	20.07	48.8	0.09			6.29
Endline	Control mean	47.41	45.51	169.81	5.09	25.32	50.38	0	0.08	12.21	7.02
Endline	Cash mean	67.29	53.85	233.77	6.39	24.2	49.36	-0.02	0.09	13.51	6.83

*$p < 0.05$.

5. Effects on psychological well-being and social cohesion

5.1 Effect of cash on primary outcomes

Table 9 displays the effect of cash compared to the delayed treatment group on psychological and social outcomes based on regressions in Table A6. We focus on life satisfaction and selfperceived efficacy as measures of psychological well-being. To address efforts to promote social cohesion, we record respondents' level of trust in refugees and hosts as well as selfreported interactions with individuals from other nationalities. We find that cash increases life satisfaction at midline and that this is maintained at endline. We do not find sustained positive effects of the cash on efficacy, trust in hosts, trust in refugees or interactions with other nationalities across the rounds.

Table 9: Effect of Cash compared to control: primary social and psychological outcomes

Effect	Term	Life satisfaction	Self-efficacy	Trust (host)	Trust (refugees)	Social interaction
Midline	Cash	0.100*	-0.039	-0.024	-0.089*	-0.034
		(0.02)	(0.04)	(0.04)	(0.04)	(0.02)
Endline	Cash	0.083*	0.040	0.047	-0.012	-0.022
		(0.02)	(0.04)	(0.04)	(0.04)	(0.02)
Pooled	Cash	0.091*	0.000	0.012	-0.050	-0.028
		(0.02)	(0.03)	(0.03)	(0.03)	(0.02)
Estimation		OLS	OLS	OLS	OLS	OLS
Baseline	Delayed treatment	0.72	0	0	0	0.62
Midline		0.56	0	0	0	0.66
Endline		0.58	0	0	0	0.67

5.2 Effect of cash+network on primary outcomes

Table 10 focuses on the additional impact of attending networking sessions compared to cash on improving psychological and social outcomes (also see Table A7). The network intervention does not shape social and psychological outcomes beyond the impact of cash. Looking at the breakdown by arms - as summarized in Table A4 - we do not find a strong indication that a specific type of networking is better at shaping social and psychological wellbeing.

5.3 Secondary outcomes

As secondary outcomes, we focus on assessing the impact of the cash and the network intervention on support for progressive refugee policies and on referrals between individuals for job opportunities. Table 8 summarizes the results (full regressions in Table A8) in column 9 and 12. We do not find that either cash or the additional networking intervention have an impact on secondary psychological and social outcomes.

Table 10: Effect of Cash+Network compared to cash: primary social and psychological outcomes

Effect	Term	Life satisfaction	Self-efficacy	Trust (host)	Trust (refugees)	Social interaction
Midline	Cash+Network	0.006	0.011	0.015	0.026	0.010
		(0.02)	(0.04)	(0.03)	(0.03)	(0.02)
Endline	Cash+Network	-0.003	0.011	-0.006	0.000	-0.005
		(0.02)	(0.03)	(0.03)	(0.03)	(0.02)
Pooled	Cash+Network	0.002	0.011	0.005	0.013	0.003
		(0.01)	(0.03)	(0.03)	(0.03)	(0.01)
Estimation		OLS	OLS	OLS	OLS	OLS
Baseline	Cash mean	0.72	0.02	0.08	0.01	0.62
Midline	Cash mean	0.65	-0.03	-0.02	-0.08	0.62
Endline	Cash mean	0.66	0.04	0.05	0	0.64

6. Effects on business networks

The intervention focused on building up networks for refugees and vulnerable hosts in Kampala and Nairobi. At baseline, the research team therefore captured in detail the business networks of participants, and followed up with them at endline to measure how their business contacts and networks have changed. Specifically, the core ways of measuring networks at baseline and endline are:[1]

- Network size: A general measure of how many individuals are linked to the respondent through business activities, e.g., as investors, mentors, co-workers, authorities, buyers and suppliers.
- Network diversity: A measure of how diverse the business networks of respondents are by capturing how many and what share of the business contacts are from different nationalities. A higher value indicates a network that has more nationalities and is not dominated by one nationality.
- Network clustering: Networks in which people know each other in a triangular relationship (A knows B, B knows C, and C knows A) are often referred to as particularly strong and interconnected. Clustering measures how much the network of a respondent is interconnected with higher values indicating more of these triadic relationships relative to the network size.
- Network bridges: Individual business contacts can connect individuals to other groups of people that they would not know without the introduction and connection from their initial contact. These connectors to new business contacts are called bridges. We measure how many bridges a respondent has that provide new information and connections.

[1] Note that the module to measure networks was not part of the midline and we hence only compare the impact at endline. Further details on the measurements from a formal perspective can be found in the appendix and pre-analysis plan.

Table 11 tests if and how the cash and the network intervention have reshaped business networks of study participants over time. The first four models compare cash recipients to the delayed treatment group on our four core network indicators described above. The second four models compare participants in the network intervention to cash recipients.

We find positive effects of receiving cash on expanding business networks. On average, individuals who received cash grants have 0.6 more business ties than those who did not receive the grant. It seems that cash recipients have been able to build up their networks and seek out contacts to run their businesses effectively. The cash also increases the diversity of business networks in terms of nationality, and people seem to particularly identify new business contacts that bridge information and contacts from previously unknown clusters of people. While cash seems to promote business network growth, we do not find that the networking intervention itself helps to expand business networks on average.

Table 11: Effect of Cash compared to control: primary and secondary network outcomes

	Primary		Secondary		Primary		Secondary	
	Size	Diversity	Cluster	Bridges	Size	Diversity	Cluster	Bridges
Cash (End)	0.624*	0.030*	0.008	1.562*				
	(0.168)	(0.011)	(0.007)	(0.755)				
Cash+Network (End)					0.153	0.001	0.001	−0.095
					(0.147)	(0.009)	(0.006)	(0.671)
Num.Obs.	2063	2063	2063	2063	5550	5550	5550	5550
RMSE	3.75	0.23	0.15	16.91	3.85	0.24	0.15	17.56
Std.Errors	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp
FE: Zone	X	X	X	X	X	X	X	X
Endline (control)	4.37	0.24	0.08	12.21	5.05	0.26	0.09	13.51
Model	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS

* p <0.05

7. Subgroup analyses

7.1 Overview for different subgroups

We perform a number of subgroup analyses[2] to assess if the networking program and the business grant were more effective for certain population groups. Figure 9 plots the average business ownership rate for Cash, Cash+Network and Delayed treatment across rounds. Figure 10 shows average business network size for groups over time. Figure 7 reports the size of the cash effect among different subgroups in the population. If the effect is not significant, the bars are displayed in a lighter color. Figure 8 does the equivalent for the effect of Cash+Network. We summarize the main patterns here.

[2] We pre-registered to explore the differences between Nairobi and Kampala, men and women, refugees and hosts, those with large business networks at baseline and those with small baseline networks, those that have lived in the city for a long time and those that have lived shortly in the city, and individuals that had a business at baseline and those that did not.

- **Consistent positive cash impact:** The cash has a very consistent positive effect on economic outcomes, life satisfaction and networks across different populations.
- **Consistent null effects for network:** The additional network intervention has consistently no impact on life satisfaction, business networks, or social cohesion for a number of subgroups. It can have various effects on busines outcomes across populations.
- **Cash alone is not beneficial for social cohesion:** While we overall do not find that the cash has a strong impact on social cohesion, we do find some indication that cash alone reduces trust in refugees and hosts for subgroups. For example it seems to reduce trust in Nairobi and for those that do not have a baseline business. The Cash+Network intervention does not have negative effects on social cohesion.
- **Uniform effects on main program populations:** When focusing on men vs women and hosts vs refugees, we generally do not find a strong differential impact of the intervention or the cash. Overall, the cash helps these programming groups in a similar way and the intervention does not add much more to their business revenues, their social cohesion perceptions or their psychological well-being. One exception is that the network intervention helped hosts at midline to increase their business revenues.
- **Benefits for business starters:** The cash particularly supports individuals that did not have a business at baseline to increase their revenues and start a business. The network intervention also supports individuals that did not yet have a business at baseline to increase their revenues. In addition, the network intervention supports those that had a small business network to begin with.

Figure 7: Effect size and significance of Cash for different subgroups and domains

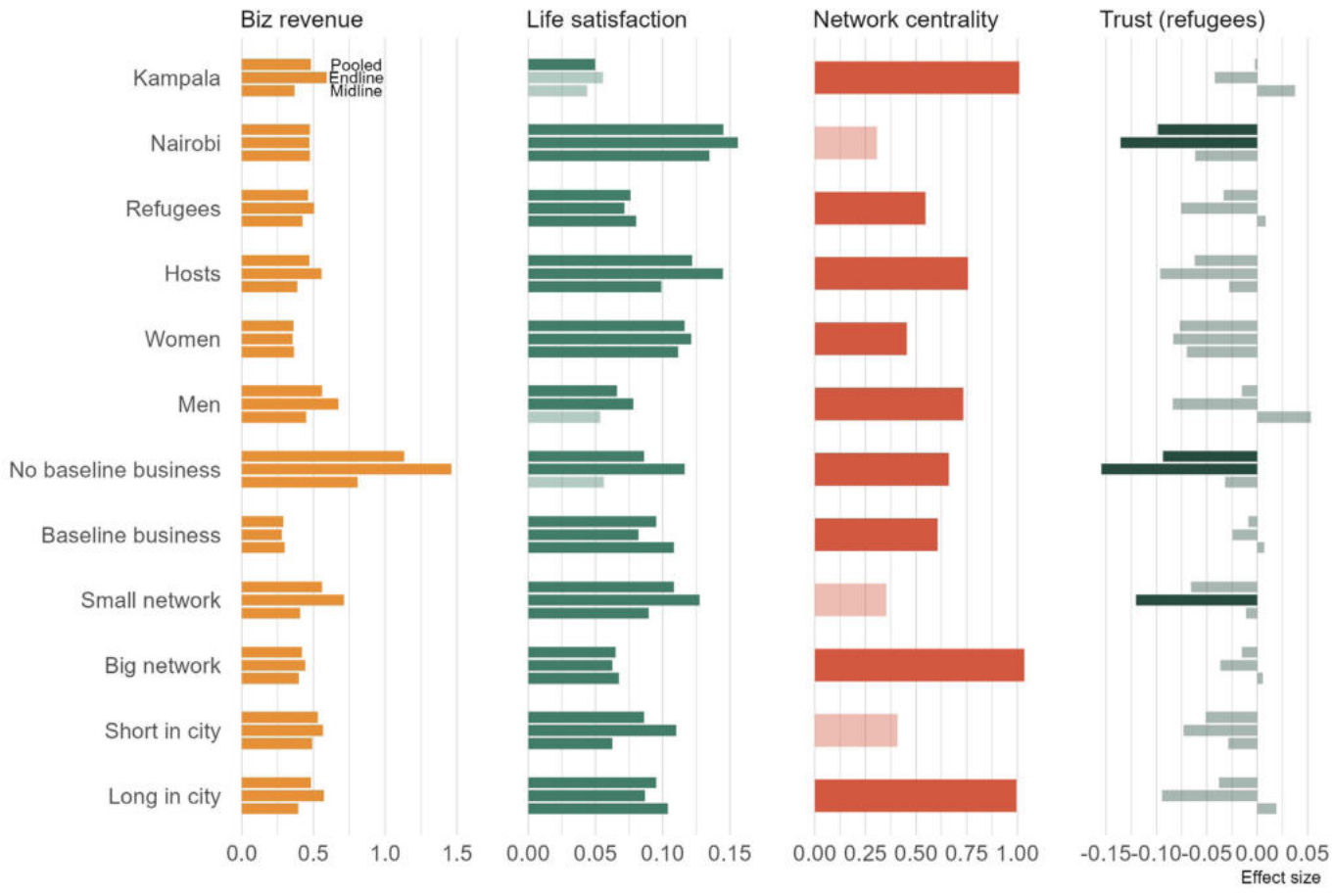


Figure 8: Effect size and significance of Cash+Network for different subgroups and domains

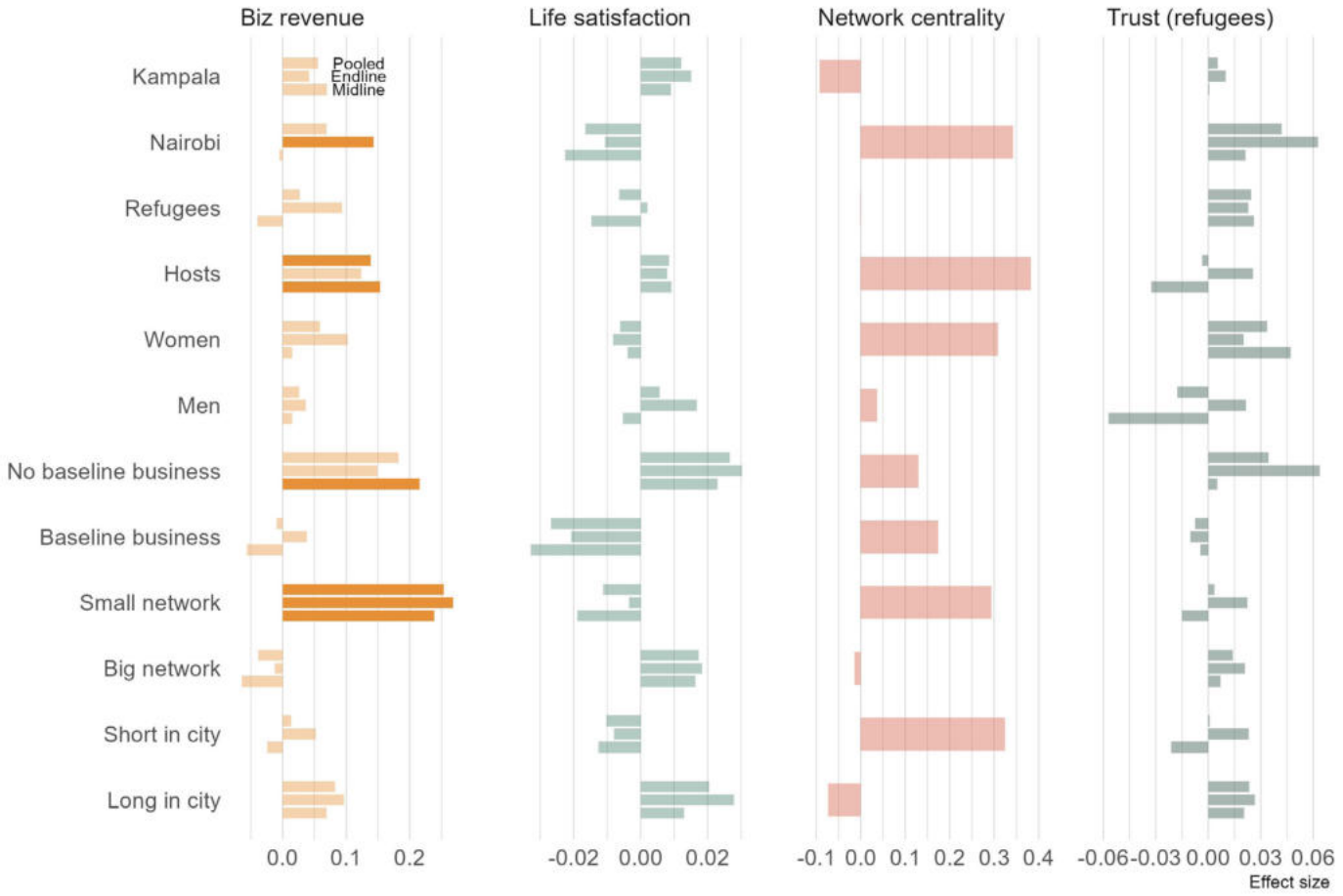


Photo Credit: November 14, 2024, Kampala, Uganda. Re:BUiLD clients take part in a session during the RCT wave 2 intervention. (PHOTO: Nathan Ijjo Tibaku for The IRC)

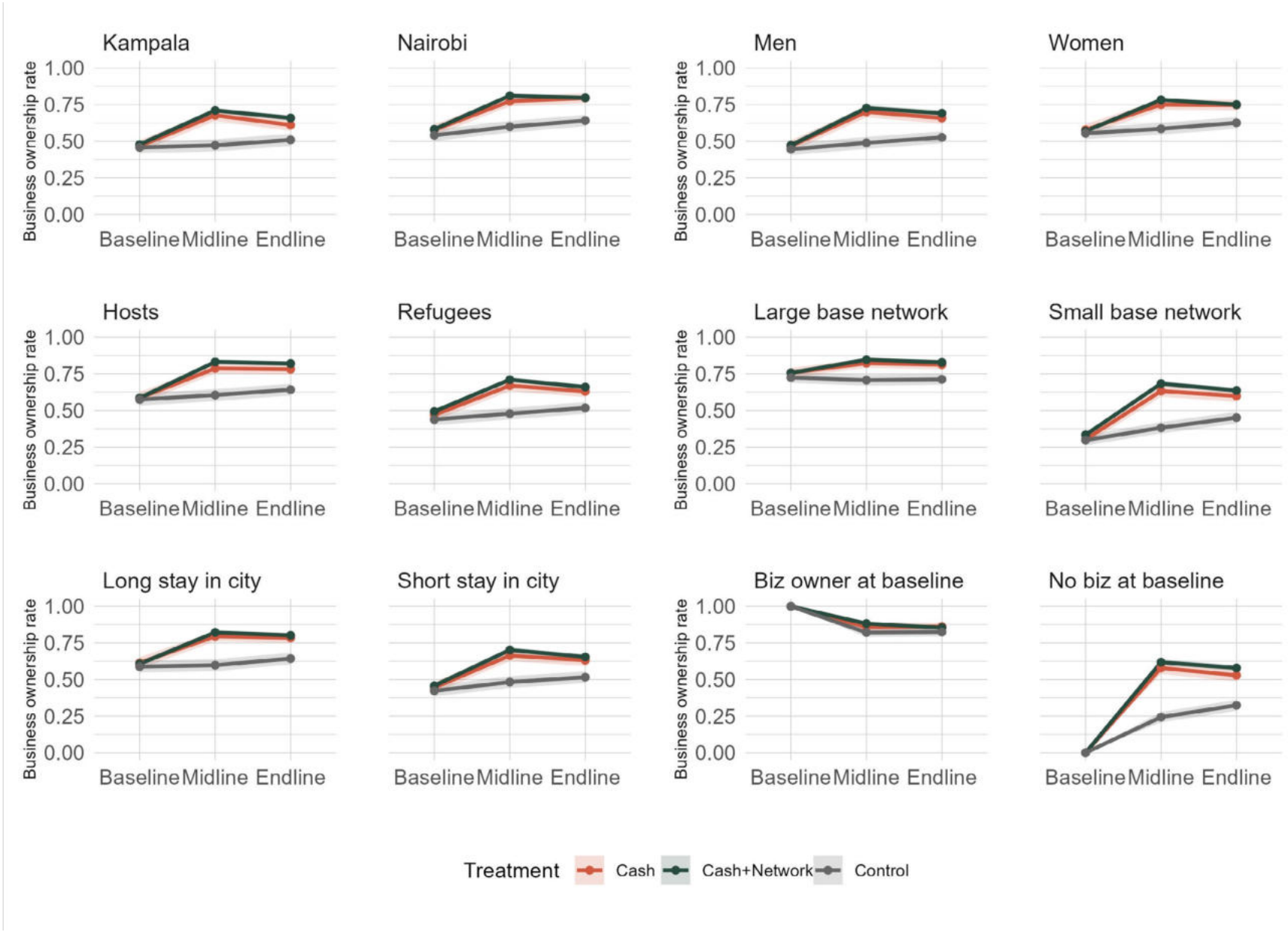


Figure 9: Average business ownership rate for Cash+Network, Cash, and Control across rounds by cities, by gender, by refugee status, by baseline network size, baseline business status, and by duration in the city.

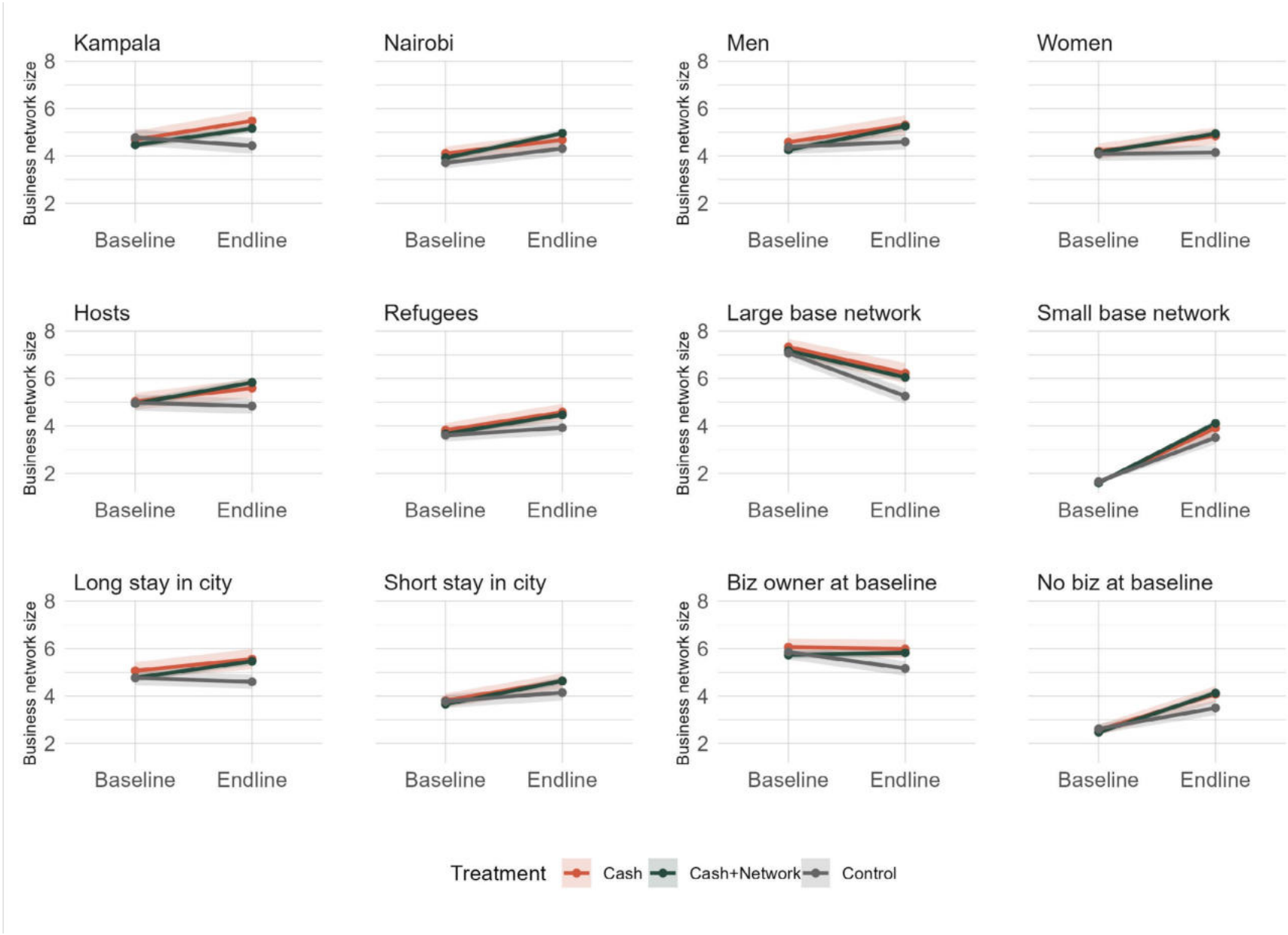
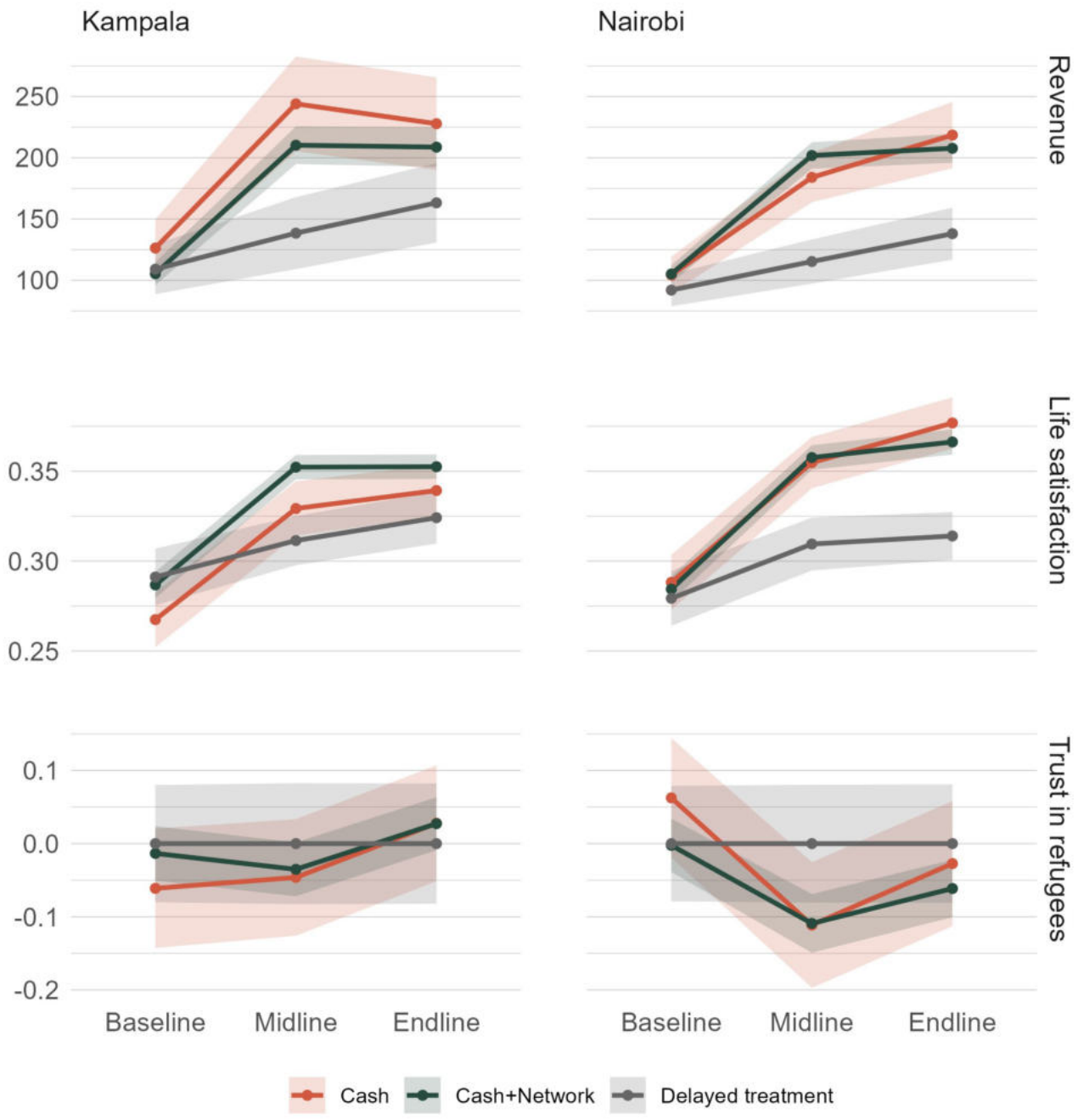


Figure 10: Average business network size for Cash+Network, Cash, and Control across rounds by cities, by gender, by refugee status, by baseline network size, baseline business status, and by duration in the city

7.2 City profiles

We find some differences across cities in how they respond to the cash and networking (see Figure 11). For both cities, the cash is the main driver of improvements rather than the networking intervention. However, smaller differences exist: In Nairobi, the cash has a much stronger impact on both business outcomes and life satisfaction although it may reduce trust in refugees and hosts and social cohesion for some subgroups within the city. In Kampala, the effect of the cash alone are more attenuated for business outcomes and live satisfaction. However, the main networking effect induced by the cash is more pronounced in Kampala than in Nairobi. In Kampala, the cash means that populations can be more economically active and build up ties while doing so.

Figure 11: Effect of Cash and Cash+Network across rounds in Kampala and Nairobi



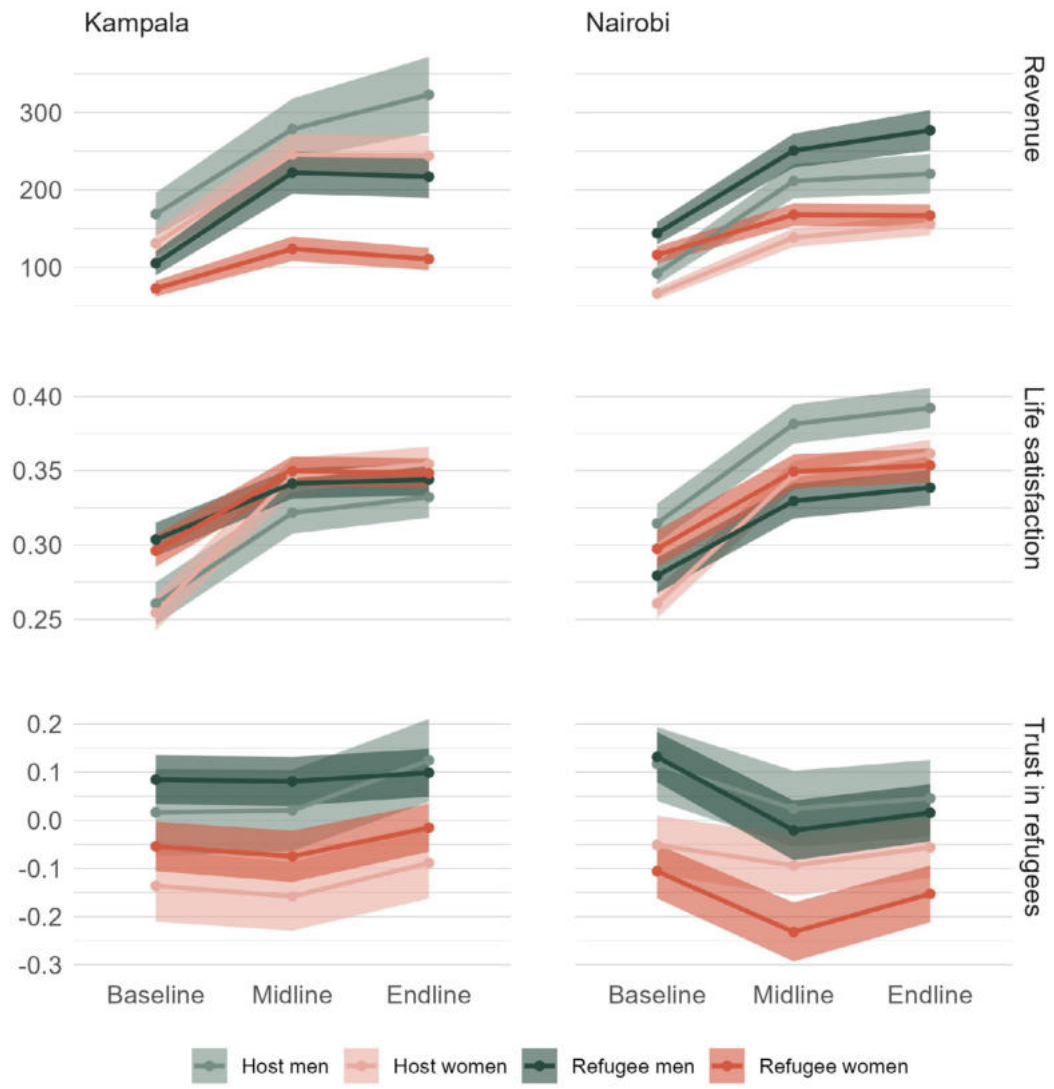


Figure 12: Core outcomes across different programming populations in Nairobi and Kampala

8. Reporting on M&E indicators

Next, we turn to the Re:BUiLD key performance indicators and the self-reliance index and describe differences between baseline, midline, and endline. Full reporting of the KPIs will be provided separately.

8.1 Key performance indicators

Table 12 provides key economic performance indicators across the whole sample, across cities, and populations. Specifically, we report business ownership and whether the respondent has spent eight days or more in an economic activity per month. We also report the average non-business related wages/ income, the respondent's business profits and their individual total income. For households, the table includes the overall household income, expenses, and savings. As expected, women have generally a lower income and savings then men, refugees have lower incomes and savings than hosts, and the study population in Kampala has lower incomes and savings compared to Nairobi.

Table 12: Key performance indicators across Kampala and Nairobi at endline, in USD

KPI	Study	Female	Male	Refugee	Host	Nairobi	Kampala
Business ownership (%)	70.01	73.35	65.63	63.46	78.34	77.21	62.91
Work over 8 days/month (%)	73.02	71.57	74.89	64.23	84.88	78.88	67.05
Non-business income ($)	22.97	14.84	33.73	19.95	26.80	21.77	24.18
Business profits ($)	65.39	53.52	81.00	61.72	70.06	70.89	59.97
Individual total income ($)	88.98	68.71	115.80	82.38	97.33	92.65	85.28
Household income ($)	170.37	164.03	179.06	177.33	161.85	170.39	170.35
Household expenses ($)	170.44	171.80	168.57	191.71	144.40	152.56	188.09
Household savings ($)	85.09	69.83	106.06	73.42	99.40	85.52	84.67

Overall, since the baseline, the economic performance in the client population has improved with a sharp increase between baseline and midline, and smaller improvements between midline and endline. The average economic indicators are plotted over time in Figure 13. Between baseline and midline, in particular the total household savings and the total household income has considerably increased. While households overall had higher total expenses at baseline than their total household income, we observe at midline and endline that the total household income and expenses are more closely aligned.

When we compare the income from business profits and wages for participants in the study between baseline and endline, 49.03% of respondents report an increased income, 10.91% report no change in their income, and 31.71 % report a decrease in their overall income (see Figure 14). Supplementing this, Figure 15 shows rates of business ownership for the whole population across rounds as well as the rate of people working 8 or more days per months either in their businesses or in a from of wage employment.

Photo Credit: November 18, 2024, Nairobi, Kenya. Re:BUiLD clients take part in a session during the RCT wave 2 intervention. (PHOTO: Edgar Otieno for The IRC)

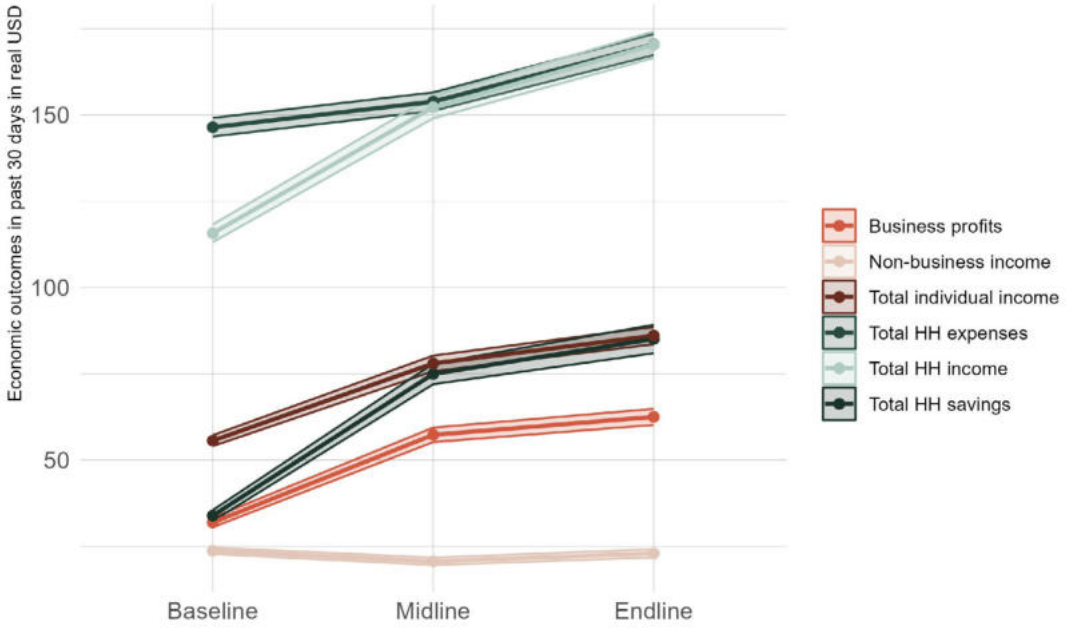


Figure 13: Economic outcomes over time. Household-level indicators in green, individual respondent indicators in red-orange

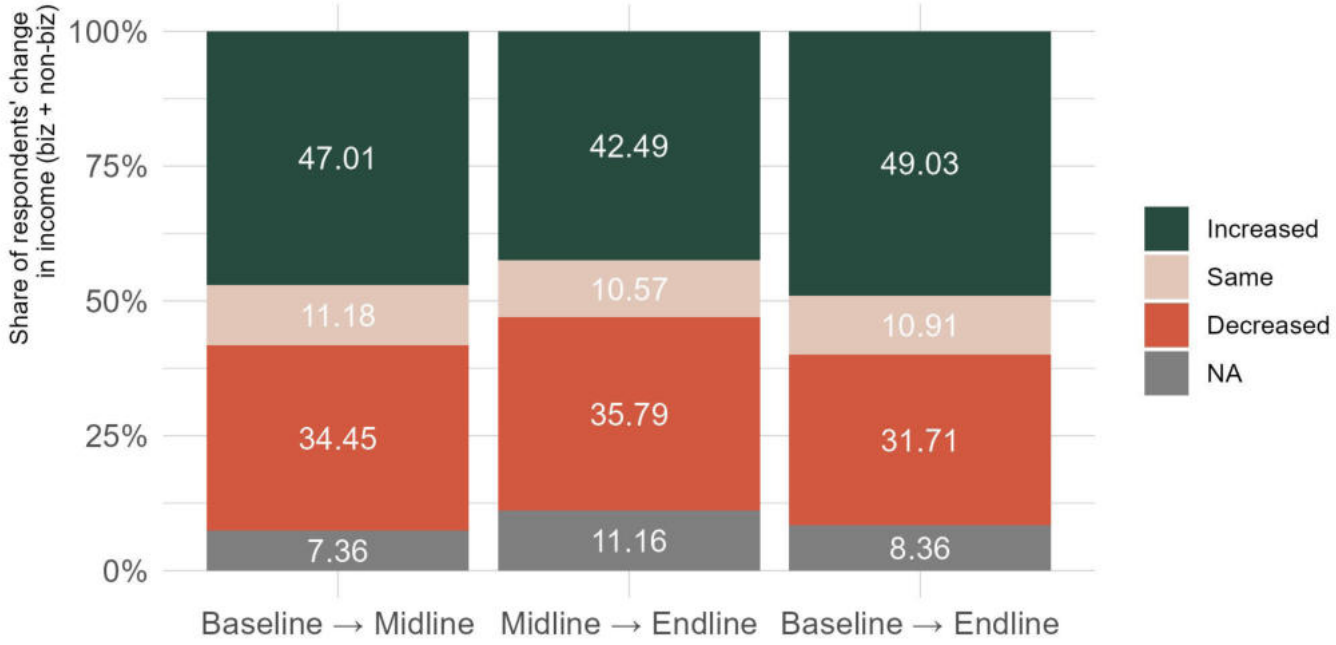


Figure 14: Change in personal income over survey rounds

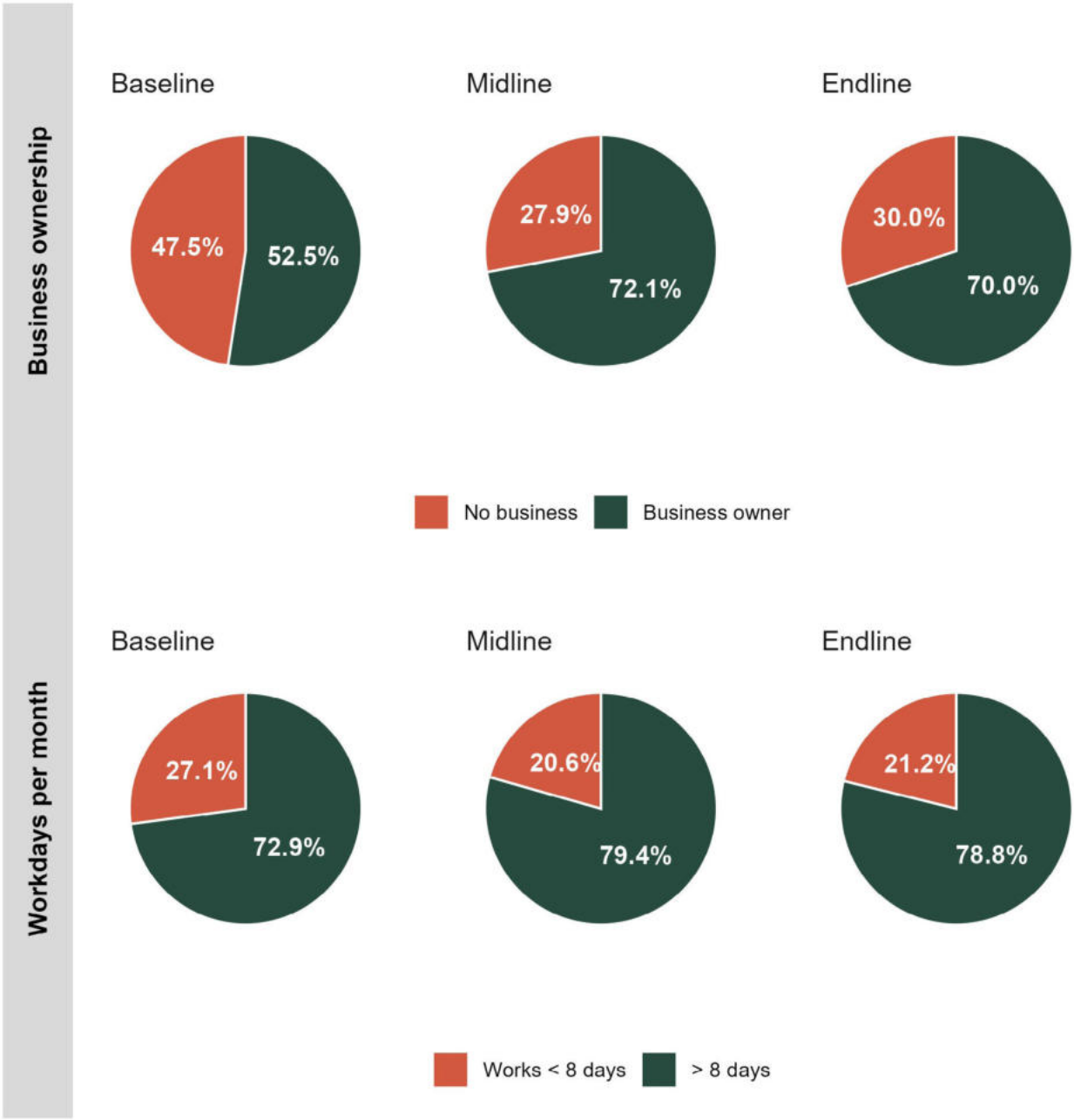


Figure 15: Business ownership and work days over data collection round

What was the impact of the business grants and the network intervention on these key performance indicators?

Table 13 reports on the effect of cash and the additional networking intervention on a number of economic key performance indicators. We find that the cash grant increases individual incomes (combination of non-business income and business profits), household income, household savings, and household expenditure. The network intervention has no effect. Table A9 in the appendix provides the full regression tables.

Table 13: Effect of Cash (compared to Control) and Cash+Network (compared to cash): key performance indicators

Effect	Term	Individual income	Household income	Household savings	Household expenses
Midline	Cash	0.294*	0.185*	0.480*	0.095*
		(0.07)	(0.04)	(0.09)	(0.03)
Endline	Cash	0.221*	0.143*	0.284*	0.108*
		(0.06)	(0.04)	(0.09)	(0.03)
Pooled	Cash	0.257*	0.164*	0.382*	0.102*
		(0.05)	(0.03)	(0.08)	(0.02)
Midline	Cash+Network	-0.010	0.026	0.110	0.041
		(0.05)	(0.03)	(0.07)	(0.02)
Endline	Cash+Network	0.025	-0.019	0.102	0.004
		(0.05)	(0.03)	(0.07)	(0.02)
Pooled	Cash+Network	0.007	0.004	0.106	0.022
		(0.04)	(0.03)	(0.06)	(0.02)
Estimation		PQMLE	PQMLE	PQMLE	PQMLE
Baseline	Control	58.12	117.84	34.48	147.68
Baseline	Cash	57.25	113.12	34.40	146.05
Midline	Control	67.11	130.14	47.66	138.13
Midline	Cash	87.05	153.52	77.87	152.77
Endline	Control	77.05	156.64	66.79	155.84
Endline	Cash	93.03	176.88	89.23	173.68

To visualise this, Figure 16 shows the average business profits, expenses, income and savings across the delayed treatment group, the cash only recipients, and the cash+network participants. One can see that, in general, the key performance indicators improve for all groups over the course of the data collection rounds. In comparison to the delayed treatment group, the increase in business profits, individual income, and household expenses is higher among populations that received the cash grant between baseline and midline.

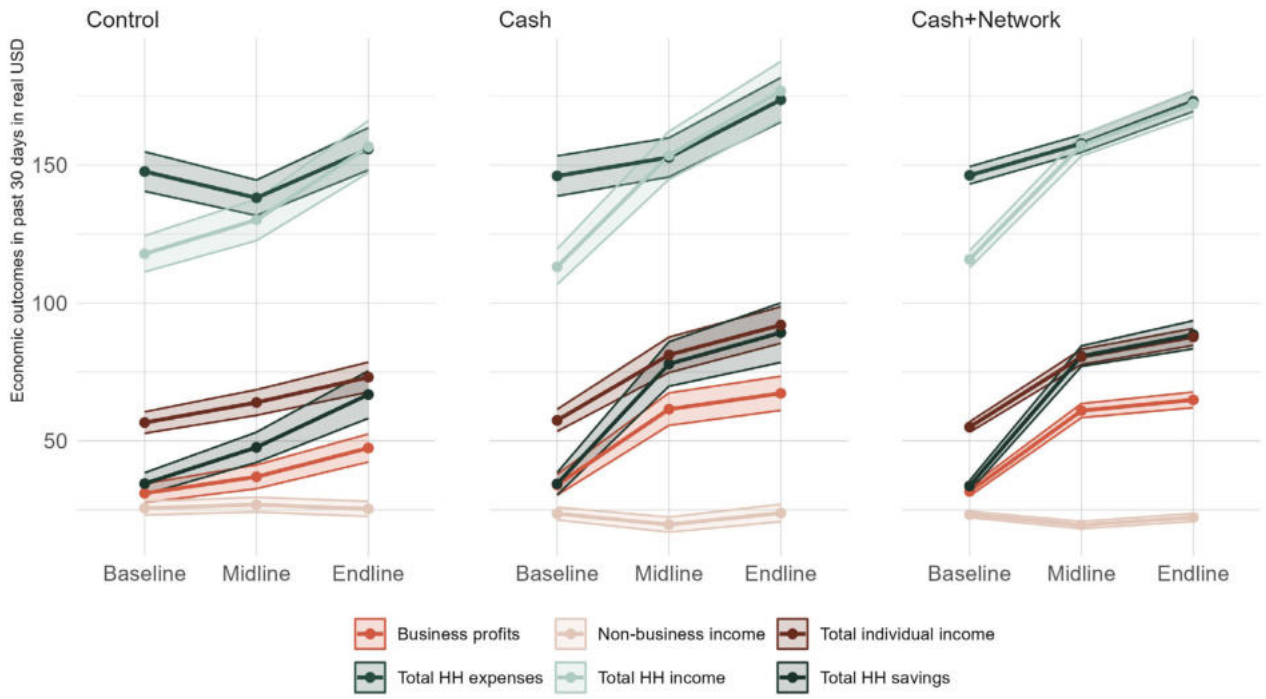


Figure 16: Economic outcomes over time for control, cash, and cash+network recipients. Household-level indicators in green, individual respondent indicators in red-orange

To provide more information on the history of small businesses run by study participants, we show their development as a flow chart in Figure 17. On the left side, the flow chart provides information on the percentage of study participants who had a business at baseline. We then show what percentage sustains these businesses at midline and at endline, and how many fail or do not open businesses at all. A large proportion of business owners at the beginning of the study sustain their businesses throughout the study period. We also see a big increase in business ownership at midline. At endline, we see some populations opening businesses and some closing them, with a mixed record.

Table 14 provides details regarding these breakdowns. 37.8% of the study population maintain their business in the study period, while about 18% open a business after receiving the cash grant and sustain this new business. 14.35% of the study population do not open a business at any point in the study. The remaining population (ca 30%) have a more mixed record, as they report a business but close it or open a business late in the study period. The table also reports the percentages of participants running businesses across treatment arms. It stands out that the rates of maintaining businesses are relatively comparable across the groups – but almost 20% of those receiving cash start a new and sustainable business in response to the business grant, compared to only 8.35% new businesses started in the delayed treatment group. In the delayed treatment group, it is more common for respondents to never open a business (27.68% of the control).

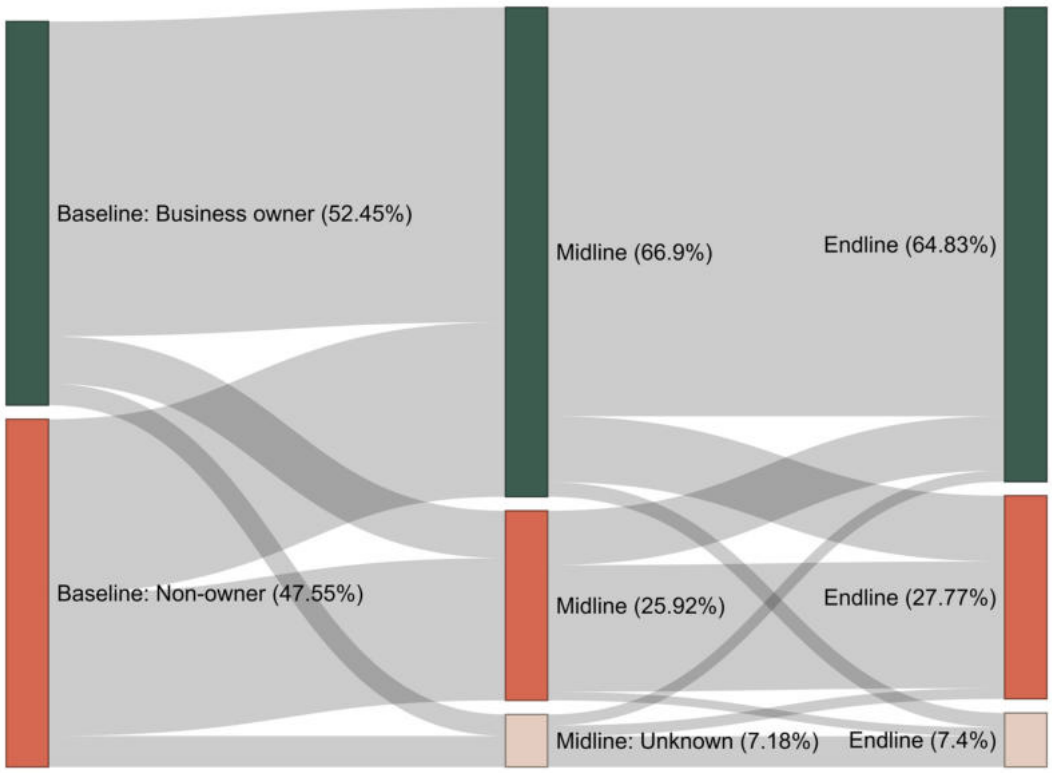


Figure 17: Flow chart of development of business ownership across survey rounds

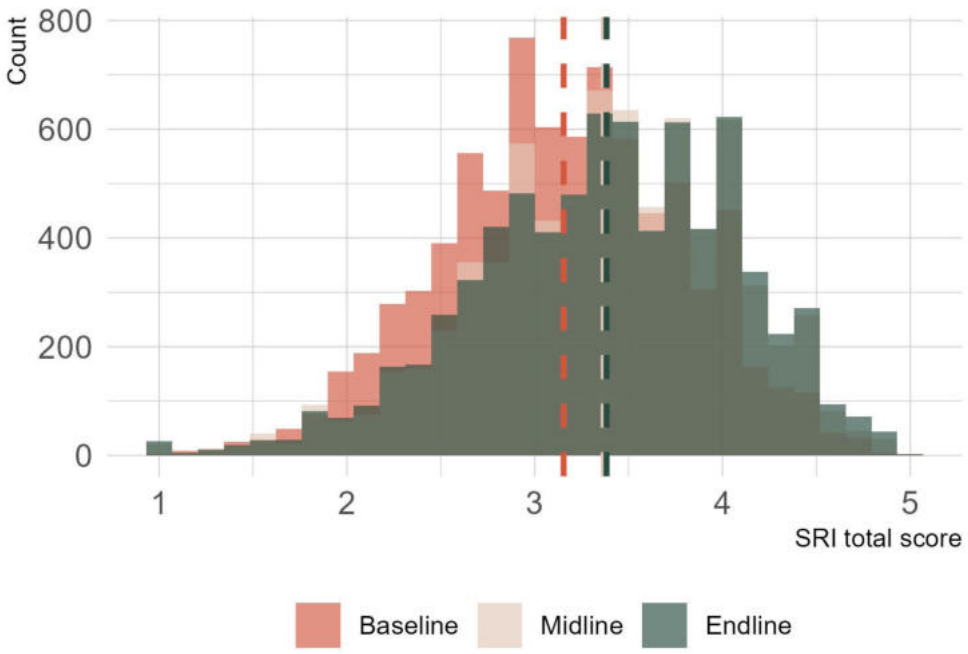
Table 14: Business history across rounds

Classification	Business history across rounds	N	%	% in treated	% in cash	% in control
Success	Maintained initial business across rounds	3026	37.80	38.46	37.63	34.97
	Started business at midline and sustained	1448	18.09	19.92	19.47	8.35
Failure	Never opened a business	1149	14.35	11.35	14.71	27.68
No information	No complete history	830	10.37	11.23	9.53	7.29
Mixed record	Opened new business and closed	395	4.93	5.32	5.34	2.78
	Started business at endline	340	4.25	3.93	3.37	6.55
	Lost initial business at endline	325	4.06	4.20	3.29	4.18
	Closed business and reopened	255	3.19	2.93	3.45	4.10
Failure	Lost initial business already at midline	237	2.96	2.66	3.20	4.10

8.2 Self-reliance index

Finally, we report on shifts in the self-reliance of refugee and host populations in Kampala and Nairobi. The overall self-reliance index (SRI) increased between baseline (3.15) and midline (3.37) but remained stable at endline (3.38). This can be seen in the distribution of SRI scores in Figure 18 and the average SRI scores across different populations in Table 15.

Figure 18: SRI scores across survey rounds. Average SRI per round as vertical lines



In Table 16, we report on the percentage of respondents who experience an increase in their self-reliance score between data collection rounds. Over 61.67% of the study population experiences an increase in the SRI between baseline and endline. In particular, hosts and cash recipients improve their self-reliance.

Table 15: SRI index across data collection rounds and populations

Round	Study	Female	Male	Refugee	Host	Nairobi	Kampala
Baseline	3.15	3.13	3.19	3.14	3.17	3.27	3.04
Midline	3.37	3.33	3.42	3.32	3.43	3.49	3.25
Endline	3.38	3.35	3.42	3.32	3.46	3.53	3.24

The overall increase in self-reliance between baseline and endline, and the stable selfreliance between midline and endline can be traced back to certain SRI domains. Figure 19

Table 16: % of respondents experiencing an improvement of their SRI score across rounds

Population	Baseline → Midline	Midline → Endline	Baseline → Endline
Study	61.13	48.76	61.67
Female	59.98	49.22	61.48
Male	62.64	48.15	61.91
Refugee	60.26	48.25	59.78
Host	62.25	49.40	64.06
Nairobi	60.43	50.11	62.93
Kampala	61.84	47.43	60.42
Treatment	63.89	47.55	62.67
Cash	61.70	49.05	62.39
Control	48.31	53.75	56.50

and Table 17 display what percentage of the study population see improvements and declines in each of the SRI domains. Similar to the midline, we find that the personal safety, health, and levels of debt remain critical drivers of SRI improvements at endline.

Table 17: Changes in SRI domains between baseline and endline and average scores

SRI	Declined	Stayed	Improved	Baseline	Midline	Endline
1a: Housing	16.2%	56.8%	27%	4.23	4.27	4.26
1b: Rent	26%	38.7%	35.3%	2.57	2.86	2.82
2: Food	13.7%	61.2%	25.1%	4.19	4.48	4.43
3: School	21.4%	59.4%	19.2%	2.81	2.85	2.75
4: Health care	29.6%	39.9%	30.4%	2.83	2.88	2.82
5: Health status	21.6%	66.6%	11.8%	4.34	4.03	3.89
6: Safety	41.9%	37%	21.1%	3.94	3.24	3.10
7: Employment	24.8%	41.8%	33.4%	2.78	2.70	2.81
8: Financial resources	25.8%	48.8%	25.4%	3.61	3.66	3.66
9: Assistance	7.5%	81.2%	11.3%	4.71	4.80	4.79
10: Debt	32.5%	39.3%	28.2%	3.04	2.93	2.79
11: Savings	21.9%	45.2%	32.8%	1.98	2.38	2.25
12a: Financial capital	10.6%	65.8%	23.6%	3.70	4.10	4.22
12b: Relational capital	26.2%	50%	23.8%	2.20	2.07	2.12

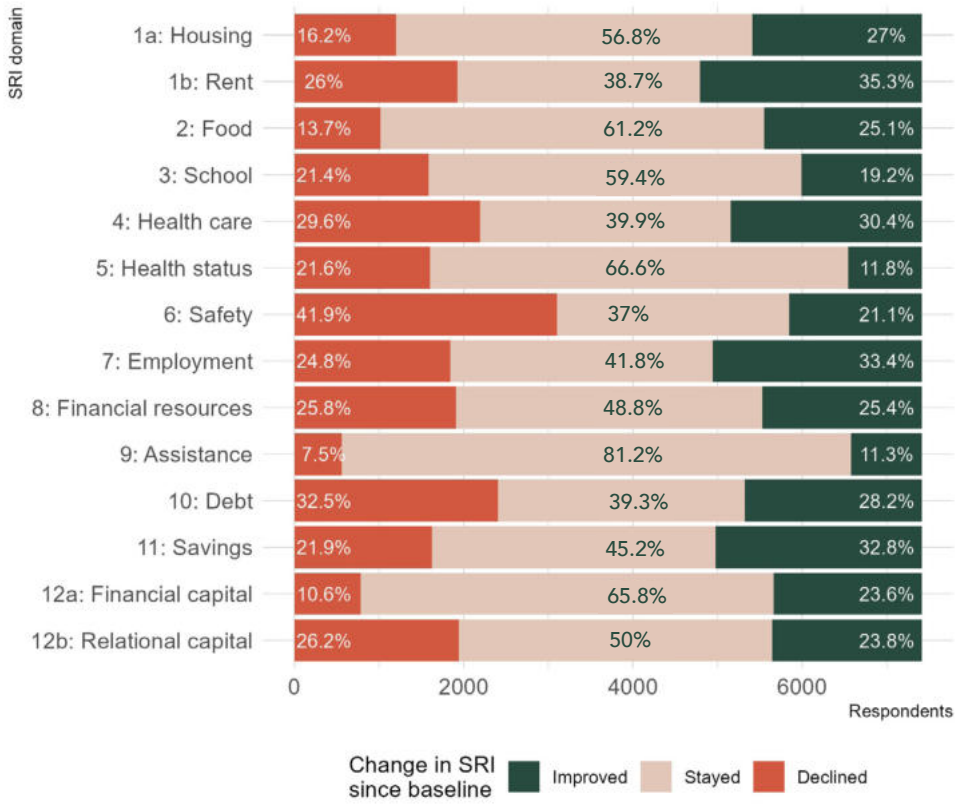


Figure 19: Change in SRI scores across domains between baseline and endline

How has the business grant and the networking intervention affected the self-reliance of refugees and hosts in the study population?

To explore this, Table 18 reports the effect of the cash grant compared to control and the effect of the network intervention compared to cash on the overall self-reliance score (see full regression in Table A10). We find that business grant recipients experience an increase in the SRI score at midline compared to those not receiving cash, and this is maintained at endline. We also find a positive short-term impact of the networking intervention on the SRI score at midline, though this is no longer present at endline.

Photo Credit: March 12, 2025, Kampala, Uganda. A Re:BUiLD community facilitator (left) verifying a business for the RCT wave 2 intervention. (PHOTO: Nathan Ijjo Tibaku for The IRC)

Table 18: Effect of Cash (compared to Control) and Cash+Network (compared to cash): self-reliance index

Effect	Term	Total SRI score
Midline	Cash	0.170* (0.03)
Endline	Cash	0.117* (0.03)
Pooled	Cash	0.143* (0.02)
Midline	Cash+Network	0.061* (0.02)
Endline	Cash+Network	-0.004 (0.02)
Pooled	Cash+Network	0.028 (0.02)
Estimation		OLS
Baseline	Control	3.19
Baseline	Cash	3.16
Midline	Control	3.20
Midline	Cash	3.36
Endline	Control	3.30
Endline	Cash	3.41

9. Program participation and satisfaction

9.1 Group dynamics

Another important question is to what extent the program implementation, the grant usage, and the group dynamics affect the success of the intervention.

- **High satisfaction with program:** The study participants generally reported high satisfaction with the implemented networking group. When asked about problems with the groups , 64.6% indicated that they had no problems with the groups. At midline, 46% reported new connections as a benefit of the group vs other benefits/no benefit. Figure 20 indicates that many group participants felt like the group members had similarities, became trusted friends and tell each other about new opportunities in the city. We find descriptive and associational evidence that those not reporting any problems with the intervention benefit from the networking (in terms of business revenues) beyond cash effects.

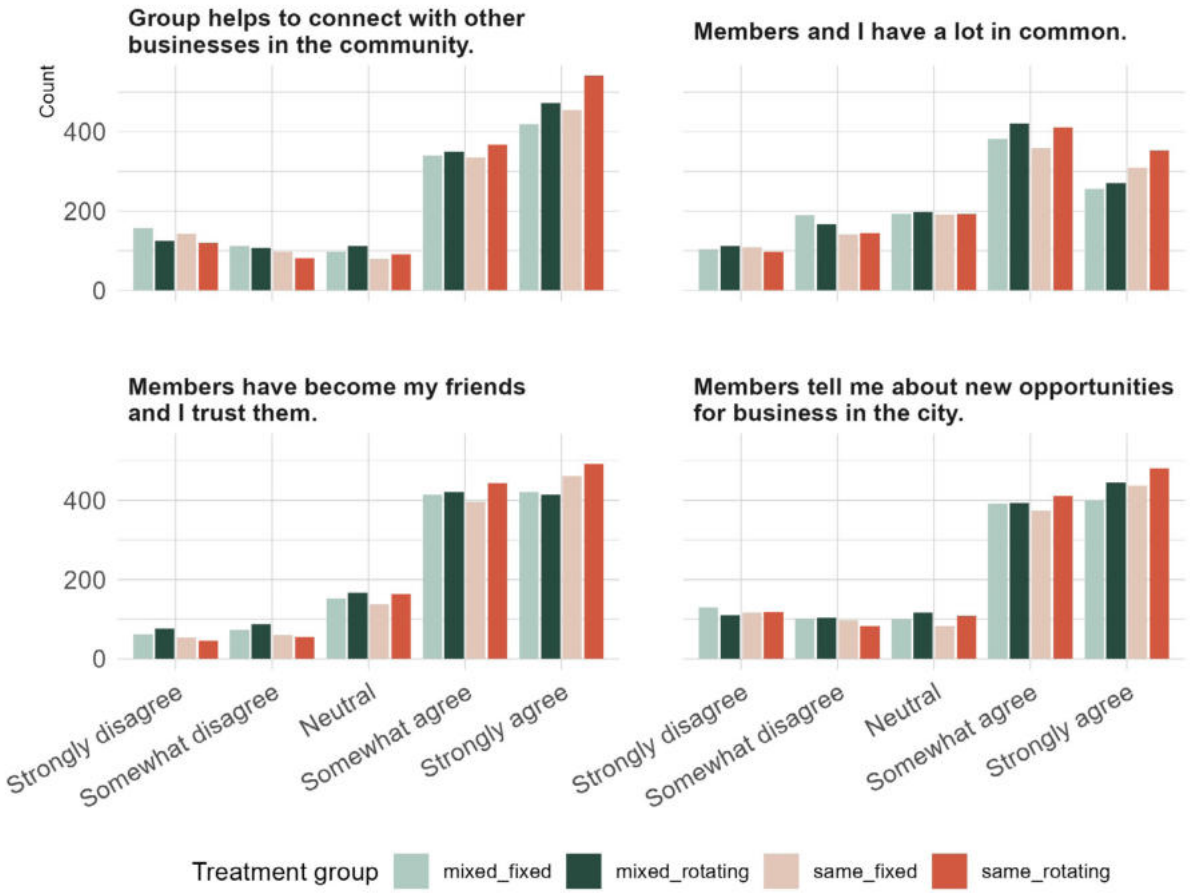


Figure 20: Satisfaction with the networking groups across networking arms

- **Active groups beyond the intervention window:** We asked respondents whether their group was still active at midline and endline and 19.3% report that their groups are still meeting 11 months after the intervention. In Kampala, 15.7% and in Nairobi 23% report active groups at endline. We find associational evidence that there are positive economic benefits in terms of business revenues of the networking groups for those in still active groups beyond the mere cash impact.
- **High group attendance:** 78% of participants attended 9 or more networking sessions and received cash grant. Attendance was generally high but dipped after the grant payout across all groups and cities (see Figure A1). We find descriptive evidence that those attending at least 9 sessions particularly benefit from the networking intervention and report higher business hours, assets, customer. Figure 21 reports the predicted effect of attending additional sessions on revenues.

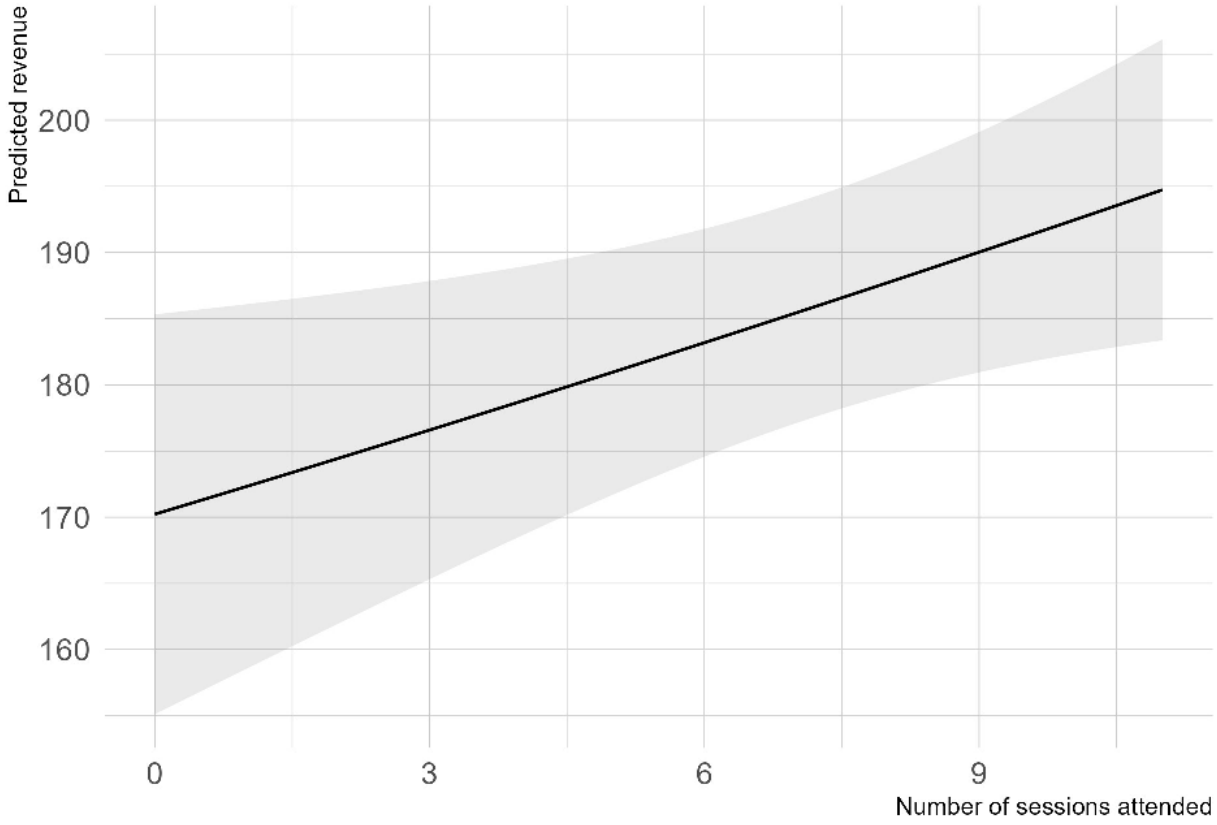


Figure 21: Exploratory dosage effect: Marginal predicted effect of attending more group sessions on revenues for cash recipients and network participants

- **Group dynamics do not matter strongly:** The groups set up vary by how many individuals from different nationalities are present, how experienced the participants were from the beginning, and how the baseline revenue of the average group member looks like. However, we find that these group dynamics do not overall effect the results much: Clients in well-performing groups (high revenues at baseline) do not perform systematically better at endline. Clients in groups with many businesses (at baseline) do not perform better at endline. Clients who were minorities in their mixed groups (vs. majorities) do not perform differently

9.2 Qualitative findings

At baseline and endline, we additionally conducted qualitative interviews with around 30 individuals across each city. Respondents generally said they liked the networking groups, often framing them as "training" and focusing on the lessons, ideas, and concepts they learned, the information they received (e.g., where and how to find cheaper suppliers), and some of the relationships and connections they made. Interviewees also overwhelmingly described a shift in how they think about people of other nationalities and how they conceive of "networks" as a business asset.

> *"Being a refugee, I have benefited a lot, I didn't have access to information and didn't know many things. But after joining the program, it was like an eye-opener. I learned so much and benefited in many ways. I'm truly grateful. . . because this experience helped me grow and see new possibilities" (Nairobi, mixed rotating, IRC EAS 6W9MPC).*

"I: Did you like the way these [rotating] groups were put together? R: The way the groups were organized was fine because it encouraged us to connect. The most important part of the training was building connections and networks, and you can't do that without reaching out to many people, regardless of their nationality. So I think this aspect was just as important as mixing different nationalities"
(Kampala: mixed rotating: IRC CEN N8OSOE)

Fewer respondents reported specific collaborations that came from the groups – and those who did indicated that those collaborations happened with pre-existing ties (e.g., they were neighbors). The attitudinal shifts and knowledge gained through the intervention did not convert into the transactional, capital-pooling behaviors that may have improved economic outcomes. Most respondents emphasized capital constraints and the benefits of the grants; those who started businesses with the grant did so by themselves or with family members – e.g.,

"R: Mum was doing this business before me, so when I received the money from IRC, I added that on top and we became partners. Mom was the one teaching me things bit by bit" (IRC EAS 23OI6B).

In Kampala in particular, people seemed to have bonded socially and this continued after the sessions – respondents cited meeting over tea, attending football matches, and having phone conversations. But these social interactions didn't necessarily spill over into (or affect) people's business activities. In Kampala, refugees described more interaction with Ugandan group members, perhaps in part because Uganda's policy environment has made refugee-host interactions more frequent and visible. In Nairobi, participants seemed to perceive trustbuilding as a slower process than participants in Kampala. This could reflect Nairobi's more atomised refugee economy and imply that the networking intervention faced a higher trust threshold than in Kampala. Finally, refugees in Nairobi reported more discrimination and perceived distrust among hosts compared to refugees in Kampala.

Table 19 provides example quotes demonstrating how the networking intervention benefitted Re:BUiLD clients and illustrates the ways in which it activated some of the core mechanisms underpinning the theory of change.

Table 19: Benefits of the Networking Intervention

Mechanism	Illustrative Quotes
Information	"We used to encourage each other in business. We would tell one another where to buy items cheaply and where to find better deals. I didn't know about those places before, but I benefited from being in that group." (Nairobi, IRC EAS 6W9MPC).
	"One main way that it [the mixed rotating groups/cash intervention] has helped my business is showing me where I can get products at a cheaper price... it has saved me money." (Nairobi, IRC EAS CIEEQJ).
	"We exchanged advice... I learned about where to get feed supply, medicines at a cheaper price, and good breeds... from there I saw my business start to grow." (Nairobi, IRC KAW 10UFYQ).
	"We ended up creating a WhatsApp group with the five of us from the Re:BUiLD program. We still communicate through this group and give each other advice." (Kampala: same rotating: IRC RUB S0D0G4).

Collaboration	"I made friends with just three people, and we still talk. If they have some good stock, I buy... One has never made an order, but she has referred a customer to me." (Nairobi, IRC KAW 55NN2G). "We started helping each other, and we started forming a business together... selling shoes." (Nairobi, IRC EAS FUS5W1). "There is a group we formed on WhatsApp, and we continued with it, and we made a chama... We normally go every Wednesday." (Nairobi, IRC EAS 2CQFH2). "When I get customers who need carpentry services, I refer them to him, and he does the same for my business." (Kampala: same fixed: IRC RUB 3FBVAW).
Networks	"Even after the training, we used to have tea together with them." (Kampala: mixed fixed: IRC RUB 7UIRAZ). "We get time and contact each other and see how we are progressing." (Kampala: same fixed: IRC CEN EU81GT). "I have collaborated with the lady who is my neighbor... We worked together." (Nairobi, mixed rotating, IRC EAS M6C9C0).

Table 20 breaks down and provides example quotes illustrating the different reasons why the networking intervention did not effectively expand networks or improve economic or social outcomes. A key piece seems to be lack of trust. It takes a lot for people to build up trust that enables complex exchange and business collaboration in an informal economy characterized by limited information, a lack of property and contract rights, and high transaction costs. In such contexts, people may prioritize risk mitigation over profit maximization. The networking intervention did not create strong enough bonds to forge the trust needed to supplant preexisting ties and encourage the kind of efficient collaboration that would, for example, increase economies of scale. Instead, people seemed to continue to rely on family, neighbors, and other pre-existing (strong) ties.

Table 20: Barriers during the networking intervention

Barrier	Illustrative Quotes
Lack of Trust	"We did not get enough time to understand each other well... We never got that chance." (Nairobi, mixed fixed, IRC EAS TYPG9T). "For now you only know the person from training so it's hard to truly trust them." (Nairobi, mixed rotating, IRC KAW AMF783).
Harassment by Local Officials	"The city council officials usually pose the biggest challenge." (Nairobi, mixed rotating, IRC EAS 23OI6B). "Sometimes they arrest you... and take money from you." (Nairobi, same fixed, IRC EAS TURSOK).
Discrimination Against Refugees	"Why don't you take your barber shop to Congo?" (Nairobi, cash control, IRC EAS LO9VQV). "You only trust someone when you have something to tell them... It's just casual conversation and training, and we leave." (Kampala: same fixed: IRC RUB S15UFD).

Barriers to Continued Interaction	"Everyone just focused on their own path. People got busy with their own lives and moved on." (Nairobi, mixed rotating, IRC EAS 6W9MPC). "We were not living in the same neighborhood. So, everyone would leave there and go their own way." (Nairobi, mixed fixed, IRC EAS TYPG9T). "My phone was stolen and so I lost all the numbers for the group members." (Kampala: mixed fixed: IRC RUB 71AM11).
Preference for Individual Business Ownership	"Everyone wants to start it alone. That is usually the problem." (Nairobi, mixed rotating, IRC EAS 23OI6B). "The friends I've met haven't been able to help me solve these challenges." (Kampala: same fixed: IRC RUB S15UFD).
Sectoral Mismatch	"None of them is doing protector business." (Nairobi, mixed fixed IRC EAS KH5SRE). "Everyone does her business on her own." (Nairobi, same fixed, IRC EAS TURSOK).
Language Barriers	"Language was the biggest problem." (Kampala: mixed fixed: IRC RUB 7UIRAZ). "People not having been educated; they don't know English or Kiswahili that much." (Nairobi, mixed fixed, IRC EAS GGP4VN). "Other people don't believe refugees can give quality service." (Nairobi, same fixed, IRC KAW D4DUSK).

There are also important differences across treatment groups. Rotating groups were meant to circulate knowledge across many entrepreneurs. A handful of high-performing participants described that mechanism working as expected. But many rotating group members could not name most of the people they met, and post-program contact was limited to one or two people they would describe as friends. Language barriers (for mixed groups) were more prominent in this arm because each session's group composition was fresh, so participants could not rely on having a translator they had built up over weeks of sessions. Several rotating group members reported that the group setup did not allot sufficient time to develop meaningful ties:

> *"We only met once, so how would we be close now? This rotation didn't allow us to build strong relationships between ourselves." (Kampala, same-rotating, RUB LX56QR)*

> *"People didn't have permanent chairs and the person who was your neighbour today will not be your neighbour tomorrow." (Kampala, mixed-rotating, RUB 3AE1G9)*

A positive case of rotating groups producing meaningful ongoing exchange (Nairobi, mixed-rotating, EAS CIEEQJ) involved a Sudanese supplier who showed the participant where to source phone accessories at half price. But they happened to be in the same trade and same market geography. Those in fixed groups seemed to generate actual friendships and more durable post-program contact.

10. Cost-effectiveness and targeting

An important consideration is the economic gains from the cash and networking relative to the program costs. Beyond the cash grant and the administrative costs of delivering the grant, the networking intervention adds per-participant costs for facilitator time, venue rental, and materials. Adding networking increases costs by $152-191 per client.[3] Rotating network groups are slightly more expensive than fixed groups in both sites. Table 21 summarizes the estimated costs per client for Cash and Cash+Networking in Nairobi and Kampala.

This cost structure creates an important question: given fixed total resources, how should funds be allocated across the two arms to maximize aggregate welfare?

Table 21: Cost per client by treatment arm and city

	Cash	Fixed Cash+Network	Rotating Cash+Network
Kenya			
Per client (USD)	$637	$792	$828
Marginal cost of networking	—	$155	$191
Uganda			
Per client (USD)	$561	$713	$725
Marginal cost of networking	—	$152	$164

Marginal cost of networking = per-client cost of networking arm minus per-client cost of cash grant.

Cash transfers produced substantial economic returns, though with notable differences across sites. If we assume the monthly gains measured at endline persist, Table 22 reports the implied payback period of the cash grant - the number of months required for cumulative gains to equal the program cost. In Kenya, under these assumptions, the grant pays for itself in under 9 months through revenue gains and within 2 years through profits. In Uganda, the implied payback period is longer given a smaller cash effect (13.5 months for revenue, approximately 5 years for profits).

Table 22: Implied payback period of the cash grant by site

	Kenya ($637)	Uganda ($561)
Revenue-based payback		
Monthly revenue gain (USD)	$73.73	$41.49
Months to payback	8.6	13.5
Annual return on investment	139%	89%
Profit-based payback		
Monthly profit gain (USD)	$26.98	$9.40
Months to payback	23.6	59.6
Annual return on investment	51%	20%

Payback = cost (USD) / monthly gain.

[3] Cost-effectiveness analysis by: Cochran-George, Mikaela, Lee Lucian, and Ramzy Magambo. 2025. "Cost of Livelihood Interventions for Refugees in East Africa: Boosting Urban Innovations for Livelihoods Development (Re:BUiLD) Program". Cost Effectiveness Brief-Wave 1 and 2. The International Rescue Committee.

The networking intervention, when added to the business grants, produced only modest additional impacts on primary economic outcomes that were not statistically significant. Given the observed marginal costs ($152-191 per client), the implied payback period for the networking intervention exceeds multiple years because, on average, the networking intervention does not generate sufficient additional economic benefit to justify its cost.

10.1 Cost-Aware Targeting: improving cost-effectiveness

However, the effects of networking are heterogeneous (also see section on subgroup analyses). Based on a causal forest analysis (Athey, Tibshirani & Wager, 2019), we can identify individuals predicted to benefit more from networking than others. Baseline revenue and age are the dominant predictors: For example, individuals with lower baseline revenue show substantially higher returns to the networking intervention.

Given this heterogeneity, a cost-aware targeting rule can improve overall cost-effectiveness; this means limiting the network intervention to those likely to benefit rather than administering it to the whole population. The key insight is that the relevant cost of the network groups are not their direct price, but the opportunity costs: funds spent on networking could instead support additional cash transfers. For each dollar spent on networking, the foregone cash benefit is approximately $0.18 in monthly revenue, pooling across country contexts.[4] A targeting rule would consequently only assign networking to individuals whose predicted conditional average treatment effect exceeds this opportunity cost threshold.

Table 23 reports the additional revenue generated under cost-aware targeting relative to a uniform cash-only allocation, for a fixed budget of USD 100,000. Cost-aware targeting can generate an additional USD 1,250–4,500 in monthly business revenue per USD 100,000 budget compared to a pure cash allocation. At the *observed* marginal networking costs (USD 152-191, last rows), the foregone benefit threshold rises to approximately USD 27–32 per month. This corresponds to the higher-cost rows of Table 23: only 25–30% of participants would justify the networking investment at actual program costs, and the net gain falls to approximately USD 1,250–1,500 per USD 100,000 budget. This strengthens the case for targeted rather than universal allocation.

Table 23: Cost-aware targeting: additional monthly business revenue per USD 100,000

Networking cost (USD)	Foregone benefit (USD/month)	Share targeted (%)	Mean CATE (USD/month)	Net gain (USD/month)
0	0.00	63.1	30.7	4,455
10	1.78	60.5	32.0	4,145
25	4.45	56.9	33.8	3,722
50	8.89	51.2	36.9	3,107
100	17.79	39.6	43.8	2,166
150	26.68	29.8	50.9	1,502
175	31.13	25.5	54.5	1,246

Based on pooled sample across sites and based on costs of grant only (not included costs of grant delivery).

Foregone benefit = (c/435) × 77 USD.

Net gain = additional monthly revenue from targeted networking vs. pure-cash allocation.

[4] Calculated as (cost/grant size) × monthly revenue lift from cash.. We calculate this based on cash grant size only (not costs for delivering the cash) and pooled across sites.

The critical implication from this is that one has to identify who could benefit from the networking and target this population. From additional site-specific models, we highlight an important caveat: targeting rules for this intervention do not transport across contexts. In other words, individuals expected to benefit based on models in Nairobi do not benefit in Kampala, and vice versa. This means that targeting rules have to be developed specific to the population and site.

The cost-effectiveness analysis points to three conclusions for future programming:

1. **Cash transfers are cost-effective.** The business grant pays for itself within 9–14 months through revenue gains, with annual returns of 89–139%. This holds across both sites, though effects are stronger in Kenya.

2. **Universal networking is not cost-effective.** At observed marginal costs ($155–$191 per client), the networking intervention does not generate sufficient additional economic returns on average to justify its cost. However, significant heterogeneity exists in who benefits from networking or not.

3. **Targeted networking can improve efficiency, but requires local learning.** A costaware targeting rule that assigns networking only to individuals predicted to benefit can generate USD 1,250–4,500 in additional monthly revenue per USD 100,000 budget. However, these targeting rules do not generalize across sites. Future programs can consider a learn-then-scale approach: run an initial intervention (e.g., 10–15% of the intended caseload) as a randomized comparison of Cash vs Cash+X, fit a site-specific targeting model, and then allocate the intervention to those with the highest expected returns.

Photo Credit: October 24, 2024, Nairobi, Kenya. Re:BUiLD clients take part in a session during the RCT wave 2 intervention. (PHOTO: Edgar Otieno for The IRC)

11. Summary

Figure 22 displays the effects across primary outcomes and survey rounds. In the left panel, in green, the effects of comparing the cash recipients to the delayed treatment group is displayed. In the right panel, in orange, the plot visualizes the additional effect of the Cash+Network intervention compared to those having only received the business grant. While we find clear benefits of cash on business outcomes, and an expansion of business networks and life satisfaction through the cash, we do not find substantial effects of the network intervention on economic, social, psychological, and network outcomes.

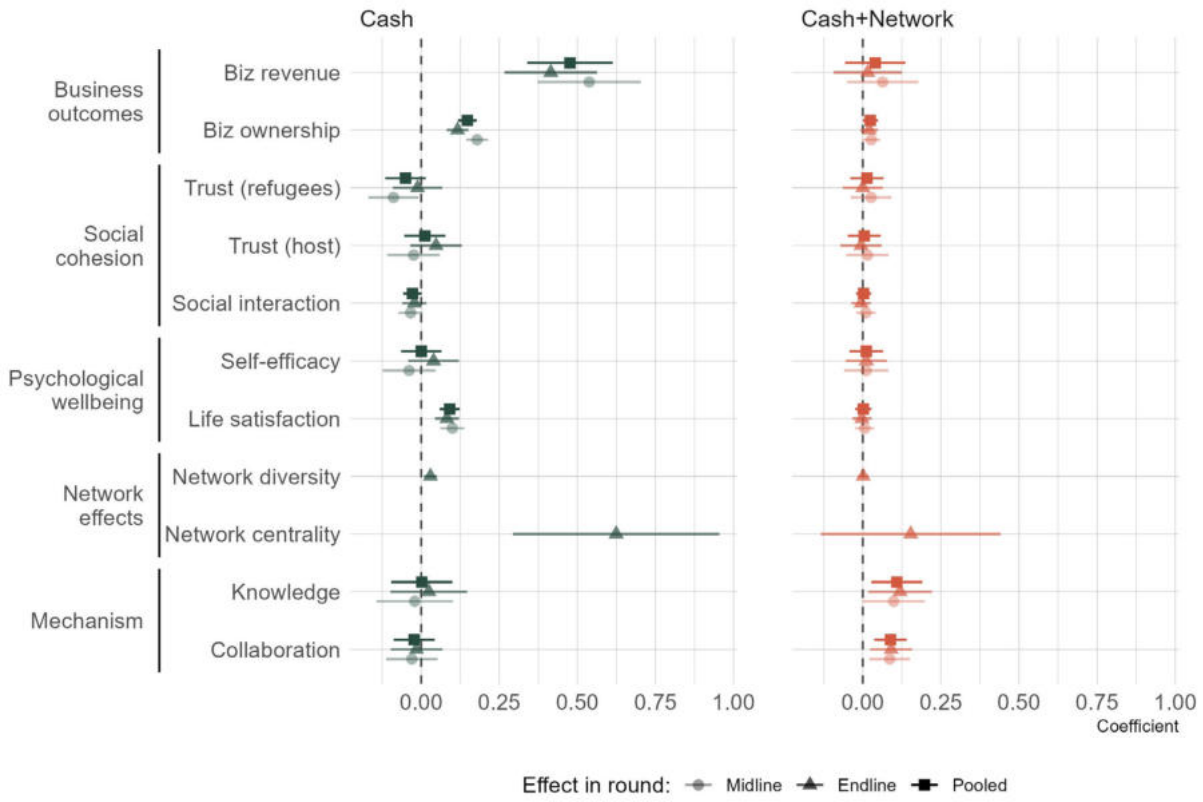


Figure 22: Effect of Cash (compared to control) and Cash+Network (compared to cash) across all primary outcomes and rounds.

A Appendix

A.1 Outcome operationalization

Table A1: Outcome operationalization

Domain	Outcome	Status	Description	Round
Economic	Ownership	Primary	Binary indicator whether respondent owns a business (1) or not (0)	1, 2, 3
	Revenue	Primary	Business revenues in the past 30 days across all businesses in USD, real (base: July 2024), winsorized at 1st and 99th percentile, set 0 for non-business owners	1, 2, 3
	Profits	Secondary	Business profits in the past 30 days across all businesses in USD, real (base: July 2024), winsorized at the 1st and 99th percentile	1, 2, 3
	Customer base	Secondary	Winsorized number of individual customers in the last 30 days across all businesses	1, 2, 3
	Productive assets	Secondary	Value of business assets across a fixed list in USD, real (base: July 2024), winsorized at the 1st and 99th percentile	1, 2, 3
	Business hours	Secondary	Hours spent in business in the past 30 days	1, 2, 3
	Non-business income	Secondary	Value of compensation received for any other employment or economic activity in the last 30 days in USD, real (base: July 2024), winsorized at the 1st and 99th percentile	1, 2, 3
	Customer diversity	Secondary	Proportion of customers of different nationalities reported in 6 brackets, numeric midpoint as indicator [Dropped measure due to little variation]	1, 2, 3
Psychological	Life satisfaction	Primary	Question on life satisfaction on a Likert-Scale from 0 (worst possible life) to 10 (best possible life), dichotomized at median	1, 2, 3
	Self-efficacy	Primary	Index of 5 questions that capture self-efficacy on a scale from 1 (Strongly disagree) to 5 (Strongly agree), index of all non-missing values, standardized by the pure control group mean and standard deviation	1, 2, 3
Social	Trust in hosts	Primary	Trust in host nationalities in both cities on a scale from 1 (do not trust at all) to 5 (trust very much) in the surveys, standardized by the pure control group mean and standard deviation	1, 2, 3
	Trust in refugees	Primary	Average trust in Somalis, Congolese, Ethiopians, and South Sudanese on a scale from 1 (do not trust at all) to 5 (trust very much), standardized by the pure control group mean and standard deviation	1, 2, 3

	Outgroup interactions	Primary	Frequency of engagement in social activity together with another nationality on a scale from 1 (Never) to 7 (Several times a day), dichotomized at median	1, 2, 3
	Policy support	Secondary	Index of support for 3 different policies that expand rights for refugees for hosts, average over all non-missing values, standardized with pure control group mean and standard deviation	1, 2, 3
Network	Degree centrality	Primary	Number of direct connections that the respondent has in their business network in past 30 days, 1st degree contacts	1, 3
	Diversity	Primary	Nationality heterogeneity of direct ties in their egocentric network using a Gini-Simpson Index	1, 3
	Clustering coefficient	Secondary	Density of all direct business ties when the main respondent is removed from 0 (no possible ties between the business contacts of the respondent) to 1 (all possible ties between the business contacts of the respondent are realized)	1, 3
	Bridges	Secondary	Number of bridges in the respondent's 2-degree network	1, 3
Information	Business practices	Primary	Index of learned business practices constructed from 6 items, average over all non-missing values, standardized with the pure control group mean and standard deviation	1, 2, 3
	Information exchange	Secondary	Number of received and provided referrals about new business opportunities in the last 30 days (from 0 to 60) [Dropped measure as unclear]	1, 2, 3
Collaboration	Collaborative behavior	Primary	Index of 6 collaborative behaviors that the respondents have engaged in from 1 (never) to 5 (always), average over all non-missing values, standardized with the pure control group mean and standard deviation	1, 2, 3
	Submission	Primary	Binary indicator whether respondents are part of a collaboration submission (1) or not (0)	2'
	Depth	Primary	Categories of low collaboration (=1, buying goods, employment, joint training), medium collaboration (=2, co-marketing, joint acquisitions, rent sharing), or high-risk sharing and in-depth collaboration (=3, profit sharing, co-founding), non-submitters are 0.	2'
	Team diversity	Secondary	Diversity of the applying team in terms of nationality, gender, and refugee status as a a GiniSimpson Index; non-submitters are 0.	2'
	Viability	Secondary	IRC ranking of the viability of collaboration proposal from 0 to 12, rescaled from 0 to 1.	2'

2' indicates that the outcome is collected outside of the regular surveys between baseline and midline.

A.2 Weekly attendance

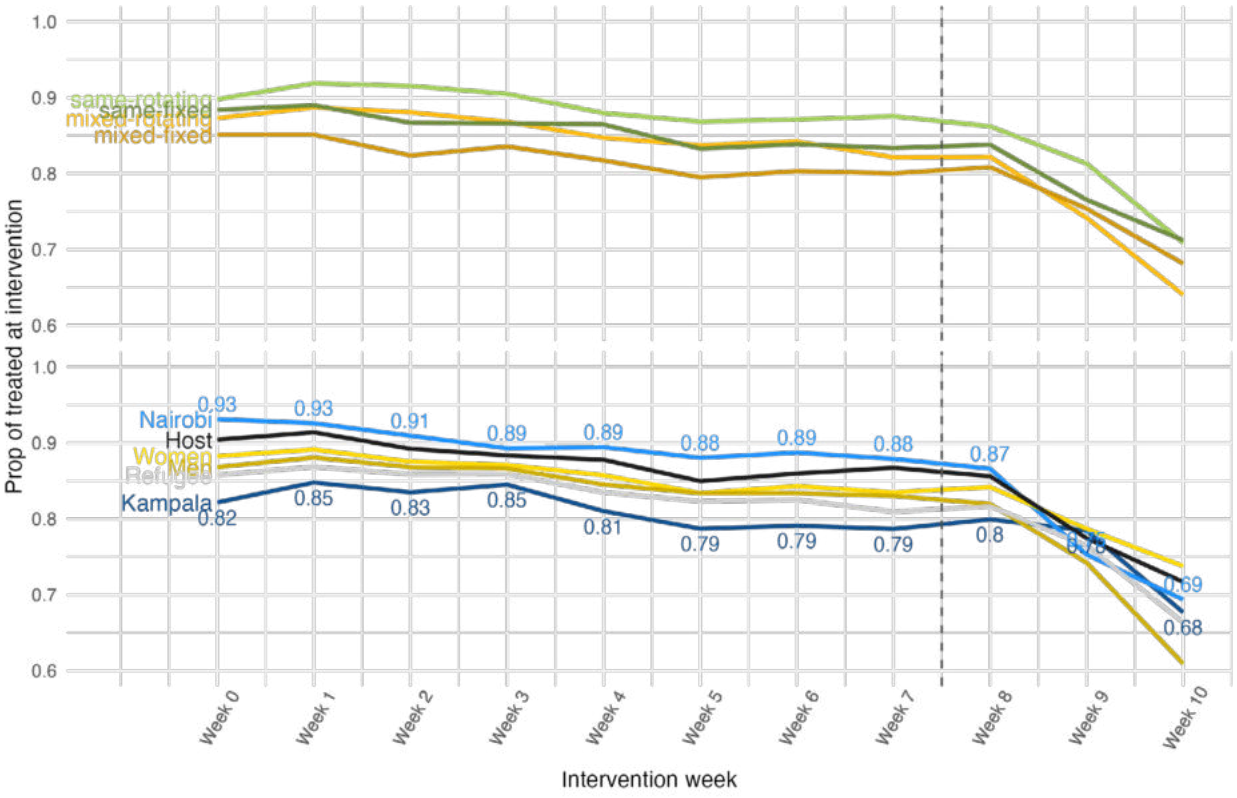


Figure A1: Weekly attendance across different subgroups

A.3 Main regression models

Table A2: Effect of Cash compared to control: primary economic outcomes

	Business ownership	Business revenue	Biz practices	Biz collaboration
Cash	0.179*	0.538*	−0.021	−0.030
	(0.018)	(0.084)	(0.062)	(0.042)
Cash X Endline	−0.062*	−0.123	0.045	0.015
	(0.018)	(0.078)	(0.075)	(0.051)
Endline	0.041*	0.176*	−0.019	0.000
	(0.013)	(0.059)	(0.051)	(0.035)
Num.Obs.	4579	4580	1984	4572
RMSE	0.41	324.99	0.92	0.96
Std.Errors	by: Resp	by: Resp	by: Resp	by: Resp
FE: Zone	X	X	X	X
Midline (control mean)	0.54	126.58	0	0
Endline (control mean)	0.58	150.42	0	0
Model	OLS	PQMLE	OLS	OLS

* p <0.05

Table A3: Effect of Cash+Network compared to cash: primary economic outcomes

	Business ownership	Business revenue	Biz practices	Biz collaboration
Cash+Network	0.027	0.064	0.099	0.086*
	(0.014)	(0.058)	(0.051)	(0.033)
Cash+Network X Endline	−0.006	−0.048	0.021	0.005
	(0.014)	(0.058)	(0.060)	(0.041)
Endline	−0.022	0.052	0.027	0.014
	(0.013)	(0.051)	(0.054)	(0.037)
Num.Obs.	12 535	12 535	5821	12 522
RMSE	0.40	337.82	0.94	0.96
Std.Errors	by: Resp	by: Resp	by: Resp	by: Resp
FE: Zone	X	X	X	X
Midline (cash mean)	0.72	211.89	0.03	-0.02
Endline (cash mean)	0.7	222.39	0.11	0
Model	OLS	PQMLE	OLS	OLS

* p <0.05

A4

Table A4: Effect of Network arms compared to cash: primary outcomes

	Biz ownership	Biz revenue	Satisfied	Efficacy	Trust (H)	Trust (R)	Inter.	Biz practices	Biz collaboration
Mixed-Extensive	0.017	0.078	0.000	−0.008	0.083	0.067	0.009	0.095	0.063
	(0.019)	(0.077)	(0.020)	(0.048)	(0.044)	(0.043)	(0.021)	(0.068)	(0.043)
Mixed-Intensive	0.025	0.075	−0.024	−0.018	−0.024	0.094*	0.008	0.130*	0.033
	(0.018)	(0.070)	(0.020)	(0.045)	(0.043)	(0.043)	(0.020)	(0.063)	(0.041)
Same-Extensive	0.042*	0.081	0.028	0.059	0.001	0.008	0.014	0.131	0.168*
	(0.020)	(0.080)	(0.022)	(0.049)	(0.047)	(0.047)	(0.022)	(0.074)	(0.045)
Same-Intensive	0.028	0.091	0.025	−0.003	−0.005	−0.031	0.020	0.073	0.100*
	(0.018)	(0.072)	(0.019)	(0.044)	(0.042)	(0.041)	(0.020)	(0.062)	(0.041)
Mixed-Extensive X Endline	0.002	−0.033	−0.027	−0.020	−0.095	−0.001	−0.004	0.039	0.047
	(0.019)	(0.075)	(0.023)	(0.058)	(0.052)	(0.047)	(0.026)	(0.078)	(0.052)
Mixed-Intensive X Endline	−0.005	0.060	0.026	0.039	0.044	−0.081	0.001	−0.027	0.044
	(0.018)	(0.073)	(0.022)	(0.054)	(0.054)	(0.048)	(0.026)	(0.073)	(0.052)
Same-Extensive X Endline	−0.016	−0.118	−0.013	−0.036	−0.029	−0.054	−0.014	0.035	−0.044
	(0.019)	(0.077)	(0.023)	(0.056)	(0.055)	(0.048)	(0.027)	(0.079)	(0.054)
Same-Intensive X Endline	−0.006	−0.114	−0.021	0.020	−0.005	0.030	−0.044	0.036	−0.029
	(0.018)	(0.071)	(0.022)	(0.054)	(0.052)	(0.047)	(0.026)	(0.075)	(0.051)
Endline	−0.022	0.052	0.008	0.076*	0.074	0.077*	0.021	0.027	0.015
	(0.013)	(0.051)	(0.015)	(0.038)	(0.038)	(0.033)	(0.018)	(0.054)	(0.037)
Num.Obs.	12 535	12 535	12 522	12 535	12 531	12 487	12 522	5821	12 522
RMSE	0.40	337.15	0.45	0.98	0.98	0.94	0.46	0.93	0.96
Std.Errors	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp
FE: Zone	X	X	X	X	X	X	X	X	X

Midline (cash mean)	0.72	211.89	0.65	-0.03	-0.02	-0.08	0.62	0.03	-0.02
Endline (cash mean)	0.7	222.39	0.66	0.04	0.05	0	0.64	0.11	0
Model	OLS	PQMLE	OLS	OLS	OLS	OLS	OLS	OLS	OLS

* p <0.05

Table A5: Effect of Cash (compared to control) and Cash+Network (compared to cash): secondary economic outcomes

	Profit	Customer	Assets	Biz hour	Nonbiz	Cust.div	Profit	Customer	Assets	Biz hour	Nonbiz	Cust.div
Cash	0.522*	0.126	0.548*	1.680*	−0.277*	−2.483						
	(0.083)	(0.103)	(0.114)	(0.199)	(0.094)	(1.503)						
Cash X Endline	−0.150	0.050	−0.235*	−0.459*	0.243*	0.763						
	(0.077)	(0.112)	(0.109)	(0.212)	(0.097)	(1.576)						
Cash+Net							0.067	0.164*	0.156	0.646*	0.041	0.933
							(0.058)	(0.074)	(0.081)	(0.172)	(0.084)	(1.232)
Cash+Net X Endline							−0.030	−0.043	0.078	−0.333	−0.054	−1.402
							(0.057)	(0.084)	(0.082)	(0.180)	(0.088)	(1.303)
Endline	0.253*	−0.242*	0.348*	0.300*	−0.060	0.230	0.102*	−0.192*	0.114	−0.156	0.185*	1.025
	(0.059)	(0.082)	(0.081)	(0.142)	(0.056)	(1.053)	(0.050)	(0.076)	(0.073)	(0.156)	(0.079)	(1.166)
Num.Obs.	4580	4531	4474	4580	4547	1966	12 535	12 398	12 177	12 535	12 456	5785
RMSE	87.09	124.71	452.91	4.71	46.02	19.40	94.52	130.36	494.47	5.10	47.12	20.97
Std.Errors	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp
FE: Zone	X	X	X	X	X	X	X	X	X	X	X	X
Midline	36.97	57.87	118.97	4.8	26.87	52.66	60.83	65.33	207.2	6.54	20.07	48.8
Endline	47.41	45.51	169.81	5.09	25.32	50.38	67.29	53.85	233.77	6.39	24.2	49.36
Model	PQMLE	PQMLE	PQMLE	OLS	PQMLE	OLS	PQMLE	PQMLE	PQMLE	OLS	PQMLE	OLS

* p <0.05

Table A6: Effect of Cash compared to control: primary social and psychological outcomes

	Satisfied	Efficacy	Trust (H)	Trust (R)	Interactions
Cash	0.100*	−0.039	−0.024	−0.089*	−0.034
	(0.020)	(0.043)	(0.043)	(0.041)	(0.020)
Cash X Endline	−0.017	0.079	0.072	0.077	0.012
	(0.022)	(0.053)	(0.052)	(0.047)	(0.025)
Endline	0.025	−0.003	0.002	−0.001	0.009
	(0.016)	(0.037)	(0.036)	(0.034)	(0.017)
Num.Obs.	4580	4580	4580	4566	4571
RMSE	0.46	0.99	0.98	0.95	0.46
Std.Errors	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp
FE: Zone	X	X	X	X	X
Midline (control mean)	0.56	0	0	0	0.66
Endline (control mean)	0.58	0	0	0	0.67
Model	OLS	OLS	OLS	OLS	OLS

*p <0.05

Table A7: Effect of Cash+Network compared to cash: primary social and psychological outcomes

	Satisfied	Efficacy	Trust (H)	Trust (R)	Interactions
Cash+Network	0.006	0.011	0.015	0.026	0.010
	(0.016)	(0.036)	(0.035)	(0.033)	(0.016)
Cash+Network X Endline	−0.009	0.000	−0.021	−0.026	−0.015
	(0.017)	(0.043)	(0.042)	(0.037)	(0.020)
Endline	0.008	0.076*	0.074	0.077*	0.021
	(0.015)	(0.038)	(0.038)	(0.033)	(0.018)
Num.Obs.	12 522	12 535	12 531	12 487	12 522
RMSE	0.45	0.98	0.98	0.94	0.46
Std.Errors	by: Resp	by: Resp	by: Resp	by: Resp	by: Resp
FE: Zone	X	X	X	X	X
Midline (cash mean)	0.65	-0.03	-0.02	-0.08	0.62
Endline (cash mean)	0.66	0.04	0.05	0	0.64
Model	OLS	OLS	OLS	OLS	OLS

*p <0.05

Table A8: Effect of Cash (compared to control) and Cash+Network (compared to cash): secondary social outcomes

	Policy	Referrals	Policy	Referrals
Cash	0.036	−0.221		
	(0.092)	(0.381)		
Cash X Endline	−0.107	0.044		
	(0.066)	(0.502)		
Cash+Network			0.003	0.297
			(0.079)	(0.306)
Cash+Network X Endline			0.070	−0.216
			(0.053)	(0.386)
Endline	−0.004	0.482	−0.111*	0.525
	(0.047)	(0.368)	(0.046)	(0.340)
Num.Obs.	2122	4572	5207	12 522
RMSE	0.92	9.02	0.93	8.94
Std.Errors	by: Resp	by: Resp	by: Resp	by: Resp
FE: Zone	X	X	X	X
Midline (cash/control)	0	6.56	0.09	6.29
Endline (cash/control)	0	7.02	-0.02	6.83
Model	OLS	OLS	OLS	OLS

*p <0.05

Table A9: Effect of Cash (compared to Control) and Cash+Network (compared to cash): key performance indicators

	Ind.	HH income	savings	expenses	Ind.	HH income	savings	expenses
Cash	0.294*	0.185*	0.480*	0.095*				
	(0.065)	(0.041)	(0.092)	(0.031)				
Cash X Endline	−0.073	−0.042	−0.196*	0.014				
	(0.070)	(0.050)	(0.084)	(0.035)				
Cash+Network					−0.010	0.026	0.110	0.041
					(0.052)	(0.033)	(0.067)	(0.024)
Cash+Network X Endline					0.035	−0.045	−0.008	−0.037
					(0.053)	(0.039)	(0.068)	(0.028)

Endline	0.138*	0.185*	0.315*	0.124*	0.064	0.144*	0.119*	0.138*
	(0.052)	(0.034)	(0.059)	(0.025)	(0.047)	(0.036)	(0.059)	(0.025)
Num.Obs.	4547	4052	4174	4022	12 456	10 907	11 239	10 856
RMSE	113.56	139.66	125.38	106.91	117.71	140.12	144.18	108.41
Std.Errors	Resp	Resp	Resp	Resp	Resp	Resp	Resp	Resp
FE: Zone	X	X	X	X	X	X	X	X

*p <0.05

Table A10: Effect of Cash (compared to Control) and Cash+Network (compared to cash): self-reliance index across rounds

	SRI score (1)	(2)
Cash	0.170*	
	(0.025)	
Cash X Endline	–0.053	
	(0.029)	
Cash+Network		0.061*
		(0.021)
Cash+Network X Endline		–0.065*
		(0.024)
Endline	0.100*	0.048*
	(0.019)	(0.021)
Num.Obs.	4580	12 535
RMSE	0.60	0.62
Std.Errors	by: Resp	by: Resp
FE: Zone	X	X

*p <0.05

A.4 Standardized effect sizes

The tables below report standardized effect sizes of the cash compared to the delayed treatment group and the network+cash compared to the cash group. Note that OLS regressions have been used to estimate all primary outcomes. Except for this caveat, the regressions with standardized outcomes follow the same estimation strategy as the other regressions reported in this endline report.

Table A11: Standardized effect size of cash compared to control for primary outcomes using OLS regressions

Effect	Outcome	Estimate	Std.error
Cash (compared to control)	Business ownership	0.258	0.039
Cash (compared to control)	Business revenue	0.171	0.035
Cash (compared to control)	Life satisfaction	0.184	0.042
Cash (compared to control)	Self-efficacy	0.059	0.041
Cash (compared to control)	Trust in host	0.054	0.043
Cash (compared to control)	Trust in refugees	-0.016	0.041
Cash (compared to control)	Interaction	-0.031	0.042
Cash (compared to control)	Biz practices	0.009	0.067
Cash (compared to control)	Collaboration	-0.015	0.043

Table A12: Standardized effect size of network+cash compared to cash for primary outcomes using OLS regressions

Effect	Outcome	Estimate	Std.error
Cash+Network (compared to cash)	Business ownership	0.042	0.032
Cash+Network (compared to cash)	Business revenue	0.007	0.031
Cash+Network (compared to cash)	Life satisfaction	-0.013	0.034
Cash+Network (compared to cash)	Self-efficacy	-0.003	0.034
Cash+Network (compared to cash)	Trust in host	-0.002	0.034
Cash+Network (compared to cash)	Trust in refugees	-0.002	0.034
Cash+Network (compared to cash)	Interaction	-0.015	0.034
Cash+Network (compared to cash)	Biz practices	0.085	0.057
Cash+Network (compared to cash)	Collaboration	0.077	0.035

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