# Financial Security, Climate Shocks and Social Cohesion

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**Abstract**

This paper shows how trust and willingness to share resources with out-groups are not fixed social preferences but respond systematically to individual economic circumstances. We study this relationship using two sequential shocks to financial security among ultra-poor refugees and host communities near a refugee settlement in Mozambique. First, a randomized livelihoods program increases financial security by 1.51 standard deviations and raises social cohesion by 0.55 standard deviations, improving trust, cross-group friendships, and the willingness to share resources. A major cyclone then partially reversed these gains, reducing social cohesion by 0.45 standard deviations. The two shocks imply similar elasticities of social cohesion with respect to financial security, consistent with a structural underlying relationship. These results provide causal evidence that economic conditions shape inter-group preferences and suggest that while economic inclusion programs can foster integration in fragile settings, their effects are vulnerable to negative shocks, such as those linked to climate change.

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# 1 Introduction

Trust and the willingness to share resources with out-groups are foundational to social cohesion. They promote cooperation, mitigate conflict, and sustain the functioning of markets, making them essential drivers of long-term economic development and growth (Greif, 1994; Putnam, 2000; Easterly and Ritzen, 2006; Greene, 2014). But what shapes prosociality toward out-groups, particularly in low-income settings? Prior work has identified two broad drivers. First, formative economic experiences during critical periods can shape beliefs, preferences, and worldviews that persist over time and shape trust and preferences for redistribution (Nunn and Wantchekon, 2011; Malmendier and Nagel, 2011; Chinoy et al., 2025; Giuliano and Spilimbergo, 2025). Another strand in the literature emphasizes the role of economic incentives. For instance, income inequality can increase the cost of cooperation and with it the incentive to defect, which can make self-protective or self-interested behavior more individually rational (Alesina and Ferrara, 2002; Margalit, 2013; Karadja et al., 2017; Agneman et al., 2022). Economic incentives could also explain why richer individuals are less inclined to share resources since redistribution entails personal losses, whereas poorer individuals favor resource-sharing because they stand to gain from these transfers (Alesina and Giuliano, 2011; Karadja et al., 2017). Yet stable preferences and structural incentives may not fully explain prosociality in low-income settings, where changes in the salience of scarcity can shift cooperative behavior even when underlying preferences and payoffs remain unchanged.

This paper provides evidence for this psychological mechanism: financial security acts as a cognitive frame that determines whether people view resource allocation as positive-sum (cooperation) or zero-sum (competition), even when long-term preferences over cooperation, economic incentives, or cultural norms remain unchanged. We find that the *same* individuals shift between trust and mistrust, cooperative and competitive outlooks based on their changing financial circumstances.

We focus on a setting where trust and willingness to share resources are critical: the integration of ethnically diverse refugees into ultra-poor host communities in Southern Africa. Promoting prosocial behavior in such environments is a pressing policy priority, especially in light of the

global rise in protracted displacement.

Testing how financial security affects social cohesion requires exogenous shocks to individual economic circumstances. We exploit two shocks to financial security among ultra-poor refugees and hosts near Maratane refugee settlement in Northern Mozambique.[1] First, a randomized livelihoods program implemented by UNHCR (United Nations High Commissioner for Refugees) and the government of Mozambique, provided 166 individuals with cash transfers, training, and employment opportunities, while 301 eligible individuals represented the control group, having received no intervention during the study period. The intervention was stratified by refugees and hosts. Over two years later, Cyclone Gombe struck the region, causing differential damage across households with exposure varying by arguably exogenous geographic characteristics such as distance to the cyclone path and elevation. Approximately 50% of households in our sample were directly affected by the cyclone. The RCT and the natural experiment reveal broadly similar implied elasticities between financial security and social cohesion, which is consistent with a reasonably stable mapping between the two.

We conceptualize financial security as having two components: an objective capacity to meet needs and absorb shocks determined by material resources, and a subjective confidence in one's finances, defined as an individual's perceived ability to meet unexpected financial obligations. This translates into an index based on indicators of income, employment, savings and the perceived ability to pay unexpected expenses. We assess social cohesion across three key domains, capturing both attitudinal and behavioral dimensions. These include trust (both in in-groups and out-groups), willingness to share resources, and friendships with out-groups.

We collect data across four survey waves between 2019 and 2022, spanning nearly three years. Following the implementation of the livelihoods program, we find large effects: a one standard deviation increase in financial security is associated with a 0.36 SD increase in social cohesion.[2]

[1] In our setting, refugees live in a managed yet open settlement, with freedom of movement, near several relatively small agglomerations of host communities that are within a radius of approximately 7 kilometers of the settlement. Refugees and host communities interact in product and labor markets as well as by sharing education and health facilities inside the refugee settlement.

[2] The livelihoods program increased financial security by 1.51 SD relative to the control group, shown in Table 2.

Gains in financial security enhanced trust toward both in-group and out-group members and increased host community members' willingness to share both employment opportunities and government financial support with refugees. In addition to these attitudinal shifts, we observe changes in social behavior: treated host community members reported a higher proportion of friendships with refugees. Treatment effects were economically and statistically significant for both refugee and host populations. Cyclone Gombe was similarly associated with an average reduction in financial security of 0.8 SD, and a 0.45 SD decline in social cohesion. Damage from the cyclone reduced trust, out-group friendships and willingness to share resources. Both shocks generated statistically similar implied elasticities of social cohesion with respect to financial security, suggesting a reasonably stable structural relationship. While the graduation program increased objective financial security more than the cyclone reduced it, the cyclone operated through two channels: loss of income due to direct damage to property, together with a generalized psychological recalibration of participants' perceived financial security that operated independently of personal material loss. In response to the climate shock, all participants, lost confidence in their ability to cope with unexpected expenses, attributed less value to their savings, and became more present-oriented.

Financial security appears to act as a lens through which individuals frame social interactions. Income gains enable trust, resource-sharing, and cross-group friendship, while losses activate competitive scarcity mindsets that erode these same dimensions. This pattern is consistent with salient scarcity capturing cognitive attention toward resource competition or triggering zero-sum perceptions of social exchange. The fact that we observe effects on both attitudes and behaviors suggests financial security shapes fundamental social outlooks rather than just domain-specific preferences. More broadly, our findings underscore that prosocial attitudes and behaviors are not fixed traits but that they respond to economic experiences.

We find no evidence supporting alternative mechanisms that could explain the observed changes in social cohesion. The results are not driven by reciprocal transfers between refugees and hosts; by changes in migration patterns (either in- or out-migration among treatment or control households), by changes in broader social norms or by changes in mental health attributable

to program participation. There is also no evidence that the observed effects stem from changes to civic or political engagement at the community level, or from changed inter-group contact during the implementation of the program. In fact, in the cross-section at baseline, host community members residing closer to the refugee settlement reported more frequent interactions with refugees but not higher levels of trust nor greater support for sharing resources with them. Two years later, improvements in financial security were associated with higher levels of prosociality even for hosts who had relatively limited contact with refugees because they lived farther from the settlement.

Our findings underscore the critical role of financial security in fostering prosocial behavior and strengthening social cohesion in ethnically diverse and resource-constrained settings. In our context, this suggests that extending income and employment support programs to include ultra-poor host community members, not just refugees, can increase trust and willingness to share resources. However, the growing frequency and intensity of economic shocks, particularly those induced by climate change, pose a serious threat to the effectiveness and durability of these interventions (IPCC, 2023). In fact, climate shocks can undermine social cohesion not only by directly contributing to displacement and social fragmentation, but also by heightening the actual and perceived scarcity of resources. This can, in turn, reshape social preferences in ways that reduce willingness to cooperate and share resources with out-groups, highlighting the importance of climate adaptation and mitigation policies that address both the economic *and* social consequences of environmental shocks. Reducing the salience of resource scarcity may be critical to stabilizing inter-group relations in high-fragility contexts.

Our study contributes to the literature on the determinants of social cohesion, prosociality, and trust. Prior research has emphasized group-level factors such as ethnic homogeneity and the role of implicit (Alesina and Ferrara, 2000) or institutionalized (Baseler et al., 2025) reciprocity in fostering social capital. In contrast, the evidence on how short-term income shocks affect social cohesion remains limited and inconclusive, particularly in low-income settings (Lehmann and Masterson, 2014; Camacho, 2014; Attanasio et al., 2015; Valli et al., 2019; Winkler, 2021; Burchi and Roscioli, 2022). Our findings show that in the context of large, salient shocks, trust is not

necessarily fixed (Enke, 2019; Buggle and Durante, 2021) but is instead responsive to recent experiences that change outlooks. Specifically, we show that individuals can shift between cooperative, trust-based behaviors and more competitive, zero-sum attitudes in response to economic shocks that change their actual and perceived financial security.

Second, we speak to a literature on the relationship between trust, social cohesion, and economic growth (Knack and Keefer, 1997; Easterly and Ritzen, 2006). While most studies emphasize how social cohesion fosters economic development (LaPorta et al., 1997; Algan and Cahuc, 2010), the reverse causal channel from economic security to social cohesion has been less explored. Our findings suggest that feeling financially secure may be an important foundation of the empirically observed correlation between higher income and greater trust (Brandt et al., 2015; Ananyev and Guriev, 2018; Bruckner et al., 2021). This also suggests that economic policy should be concerned not only with promoting growth, but also with managing the economic volatility that can erode its benefits or even prevent it.

Third, our findings contribute to a literature on the behavioral effects of economic scarcity. A growing body of work shows that scarcity influences economic preferences and decision-making (Shah et al., 2015; Haushofer and Fehr, 2014; Prediger et al., 2014; Fisman et al., 2015; Boonmanunt and Meier, 2023; Kaur et al., 2025). Recent literature has also highlighted the importance of individual experiences in shaping psychological traits and outlooks such as zero-sum thinking, which then correlate with preferences for redistribution (Chinoy et al., 2025). We extend this research by showing how salient individual-level economic shocks shape individuals' social attitudes, such as trust, willingness to share resources and friendships. As a result, within-cohort heterogeneity in exposure to income shocks can produce meaningful variation in prosocial attitudes and behaviors, among otherwise similar individuals.

Fourth, we add to the literature on bundled income and employment support programs aimed at poverty alleviation among ultra-poor populations (Banerjee et al., 2015; Bandiera et al., 2017; Bedoya et al., 2019; Banerjee et al., 2021; Balboni et al., 2022; Bossuroy et al., 2022). We make two contributions to this literature. We implement the first evaluation of a graduation intervention in a mixed refugee-host setting and document that inclusive targeting of both

groups not only enhances financial outcomes but also improves prosociality.[3] We also highlight the importance of the graduation program in boosting the resilience of the ultra-poor to climate shocks. In our setting, all graduation program participants reported higher financial security on average, even after being exposed to a major climate shock.

Fifth, we provide evidence that climate shocks threaten poverty alleviation through a novel channel: the erosion of social cohesion (Dell et al., 2012, Hirvonen et al., 2023). Shocks directly cause material damage but also trigger community-wide scarcity mindsets that undermine trust and cooperation. This dual-channel mechanism: material losses and scarcity mindsets, implies that climate adaptation requires integrated approaches safeguarding both material security and collective psychological resilience.

Sixth, we contribute to a growing body of work in social psychology and economics that tests the contact hypothesis (Allport, 1954; Betts et al., 2022). This theory posits that inter-group contact can foster tolerance and cooperation yet empirical findings have been mixed (Lowe, 2025): while some studies find that contact improves attitudes (Hopkins, 2010; Rao 2019; Barros, 2025), others report null or even negative effects (Quillian, 1996; Pettigrew and Tropp, 2006; Paluck et al., 2018).[4] Our findings suggest that improving the level of financial security in fractionalized environments can be important for contact to improve social cohesion, even in more general settings not characterized by a commonality of goals, or by explicitly engineered opportunities for cooperation. Financial security may mediate the impact of increased contact with out-groups on prosociality and social cohesion, which could potentially help explain some of the diverging findings on the contact hypothesis in the literature to date.

The remainder of the paper is structured as follows: Section 2 describes the motivation, the study setting and empirical strategy. Section 3 presents results on the effects of the positive

[3] We conduct a cost-benefit analysis which suggests that the program would take about 2.11 years to have a positive return on investment (USAID, International Rescue Committee). This is the case even without monetizing the benefits associated with improved social cohesion. See Appendix D for the full cost-benefit analysis.

[4] Moreover, interventions aimed at improving social cohesion through more interactions tend to generate weak effects (Paluck et al., 2018; Baseler et al., 2025). Bazzi et al. (2019) exploits a population resettlement program to identify the long-run effects of inter-group contact on national integration in Indonesia, and finds that the program leads to greater integration in fractionalized communities with many small groups, but has the opposite effect in polarized areas with a few large groups.

income shock on financial security and social cohesion. Section 4 examines the impact of the climate shock and Section 5 concludes.

## 2 Motivation

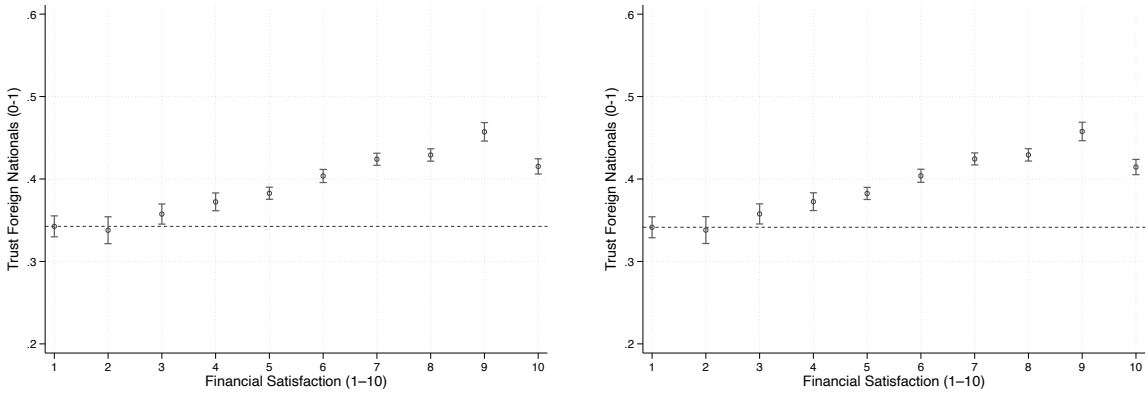
While the effect of social cohesion on economic growth is well-documented (Knack and Keefer, 1997, LaPorta et al., 1997, Putnam, 2000, Easterly and Ritzen, 2006, Algan and Cahuc, 2010) the reverse link between financial prosperity and security and social cohesion is less understood. And yet, feeling financially secure may affect social cohesion through several channels: by reducing perceived resource competition, shifting individuals from zero-sum to cooperative orientations (Michal et al., 2014, Chinoy et al., 2025), freeing mental bandwidth for prosocial engagement (Mullainathan and Shafir, 2013; Pavanello et al., 2016) or by increasing tolerance for inequality (Lambert et al., 2003; Bernhard et al., 2006). In turn, financial security is likely to be determined jointly by objective material resources and subjective beliefs about one's economic position and ability to absorb financial shocks.

Two sequential shocks allow us to trace both the effect of financial security on social cohesion and its underlying channels: a randomized livelihoods program that jointly improved objective resources and subjective confidence, and a subsequent cyclone that reduced material resources for damaged households while sending a community-wide signal of economic uncertainty. Individual positive shocks that boost financial security can divert attention from contesting resources with out-groups. Negative aggregate shocks can induce a scarcity mindset that aligns behavior more closely with traditional economic predictions of self-interest and self-protection (Shah et al., 2015). Together, these shocks generate variation in both actual and perceived financial security, allowing us to identify its impact on social cohesion.

To motivate the link between actual and perceived financial security and trust we draw on data across several countries from the World Values Survey (WVS). We pool data from 66 countries and over 90,387 respondents from the latest waves (2017-2022), and plot the correlation between

a subjective measure of financial satisfaction,[5] and a measure of trust in foreign nationals.[6]

**Figure 1:** Financial Security and Trust in Foreigners: World Values Survey (2017-2022)




**Panel A: Perceived Financial Security and Trust** **Panel B: Controlling for Income Rank**

*Notes:* Panel A shows the relationship between financial satisfaction, which is increasing on a scale of 1 to 10 and trust in foreign nationals. Panel B shows the same relationship as in Panel A, but additionally controlling for actual, self-reported income rank. These estimates include wave fixed effects.

Figure 1 shows that on average, respondents who feel more financially secure are more likely to trust foreigners (Panel A), even when accounting for actual income rank (Panel B).[7] When examining the association between financial security and generalized trust, we find a similarly monotonic but notably weaker relationship.[8] One possible interpretation is that trust in foreigners activates considerations related to resource distribution and reciprocity, making it more sensitive to one's perceived financial security. Individuals who feel financially secure may be less concerned about economic competition, thereby increasing their openness and trust toward outsiders. While suggestive, this evidence points to a broader link between financial security and trust that may extend beyond our specific context.

[5]This measure is obtained from answers to the question: "How satisfied are you with the financial situation of your household?" (Q50), with a range between being completely dissatisfied (1) to being completely satisfied (10).

[6]This is measured by the response to the following question: "I'd like to ask you how much you trust people from various groups. Could you tell me [...] whether you trust people from a different nationality?". The respondents can select an option from "completely, somewhat, not very much", to "not at all" (Q63).

[7]We consider income rank to be a more objective measure of financial security. This variable captures the response to the following question:"On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is. Please, specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in (Q288)." Note that this relationship is also strong when we control for country GDP per capita.

[8]See Figure B.1 in the Online Appendix. Moreover, a stacked regression on trust reveals that coefficients for financial security interacted with trust in foreigners are larger than the coefficients of financial security on trust at every level of financial security.

## 2.1 Context and Setting

At present, over 130 million people have been forcibly displaced from their homes (UNHCR 2024), with approximately 40% of those being refugees sheltering in other developing countries. These figures have grown four-fold since 2010.[9] The vast majority of refugees today seek refuge in low and middle-income countries and are in a situation of protracted displacement, making the integration of refugees into host communities a critical policy goal.[10] But while refugees face specific vulnerabilities, including the loss of assets and psychological trauma (WB, 2017) they are often hosted by communities that are similarly impoverished and marginalized, for whom resources for survival are scarce (Chambers, 1986; Jacobsen, 2002; Verwimp and Maystadt, 2015; Sanghi et al., 2016; WB, 2017). In fact, some of the largest refugee settlements in Sub-Saharan Africa are located in marginal, arid patches of land marked by extreme levels of poverty, such as Kakuma and Dadaab settlements in Kenya, Nyarugusu in Tanzania and the Bidi Bidi settlement in Uganda, among others. Thus, though refugees normally account for less than 1 percent of the host country's population,[11] as recipients of humanitarian transfers, their presence is often highly salient to their impoverished hosts. The perceived unfairness of humanitarian assistance in an environment defined by scarce resources and limited public services can compromise social cohesion, undermine socioeconomic integration, and ultimately hinder the development and growth of host economies (Alesina and Ferrara, 2000; Jacobsen, 2002; Easterly and Ritzen, 2006). Approximately 71% of refugees in Sub-Saharan Africa currently live in UN-managed refugee settlements.[12] Mozambique's only refugee settlement dates back to 2001 and hosts over 13,190 refugees out of a total of 28,000 refugees in the country. The settlement is located in Northern Mozambique in Maratane, 35 kilometers from the city of Nampula, the third largest city in the country with a population of approximately 743,125. The settlement is co-managed by UNHCR and the Government of Mozambique. The majority

[9] By 2050, it is projected that over 1.2 billion people will have been forcibly displaced from their homes, driven out by a combination of conflict and climate shocks (Rigaud, 2018).

[10] In 2024, only 8% of the stock of displaced individuals was able to return home (UNHCR, Global Trends, 2024).

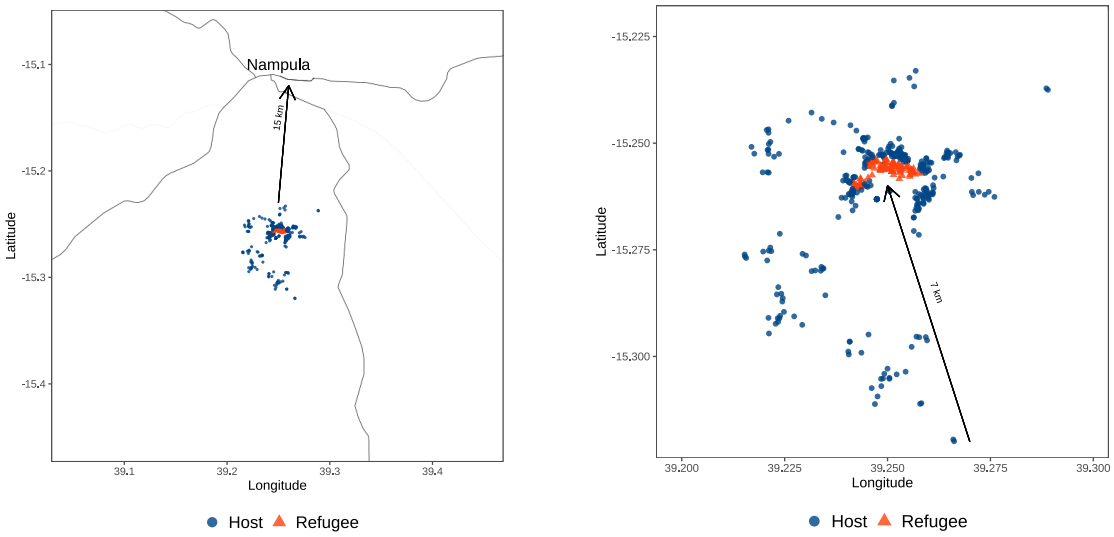
[11] In some countries the shares can be slightly higher such as Turkey, Chad, Djibouti and South Sudan, where refugees account for between 2 and 3.5 percent of the population (UNHCR 2024).

[12] Encampment policies are largely confined to low- and lower middle-income countries, with 75 percent and 26 percent of refugees living in managed settlements, respectively.

of refugees in Maratane originated from the DRC (42%) and Burundi (32%), with the remainder coming from Somalia (11%), Rwanda (14%) and Ethiopia, Uganda and the Congo (1%).[13] The average (median) length of stay in the settlement at the time of our study was 9.5 years (8 years). The refugees who have stayed the longest joined the settlement 23 years ago while the most recent arrivals joined in the year prior to the start of our study, in 2018.

Host communities live in areas that are either bordering the settlement or within a radius of approximately 7 kilometers, in scattered and small agglomerations. For about 16,390 host community members, the refugee settlement hosts their closest market, as well as health and education facilities, which are open to all. Our survey and historical data confirm that the majority of these agglomerations either pre-dated the opening of the settlement or sprung up shortly after the settlement was built.

**Figure 2:** Location of Households




**Panel A: Settlement, relative to Nampula city** **Panel B: Refugee Settlement and Host Agglomerations**

*Notes:* The figure shows the location of households in the community, by host and refugee status. The Maratane refugee settlement is located approximately 15 kilometers from the center of the city of Nampula (as the crow flies) but 35 kms on local roads. Host community members live between 0.3 and 7 kms away from the refugee settlement.

[13] Table B.4 in the Online Appendix reports the languages spoken by refugees.

## 2.2 Sample and Data

We identify a sample of 467 refugees and host community members drawn from a group of individuals eligible for UNHCR's livelihoods/graduation support program. Eligibility for the program was determined by a poverty survey, which collected information on 10 socioeconomic indicators to identify poor and extremely poor households. The poverty scorecard classification is based on data from the most recent National Poverty Assessment in Mozambique (the 2014/15 Household Budget Survey), and it is commonly used by the Government of Mozambique to enroll ultra-poor citizens into different social safety net programs.[14] We stratify our sample by refugees and host community members and randomly assign 166 participants to the treatment group and 301 participants to a control group.[15] We conducted a survey in 4 waves,[16] capturing information on household demographics, beliefs, food security, mental health, together with the key outcome variables of financial security and social cohesion.[17]

We conducted a baseline survey one month before the start of the livelihoods support graduation program in September 2019. Following the baseline, the program started with language training (3 months) and job training (18 months). We conducted our first midline survey in May 2021, a couple of months prior to the large cash transfer. This cash transfer was provided in two tranches, one month apart, and represented approximately 7 months of average income for

[14]The poverty score card asks about the number of children in the household, whether the head of the household can read and write, the material of the floor of the residence, the main source of energy in the household, whether the household has a table in good working order, how many beds and cots the house has in good working order, whether the household has a charcoal or electric iron in good working order and whether the household has access to a cell phone. For the exact questions used in the poverty score card see Online Appendix A.

[15]Our sample is balanced on most baseline characteristics within each stratum, as shown in Table B.5 in the Online Appendix. Among hosts, there are some chance imbalances: treated hosts have larger households (6.7 vs 4.8 members, $p<0.01$), are more likely to speak Portuguese (65% vs 49%, $p=0.01$), and report saving a higher share of income (13% vs 6%, $p=0.02$). We always include respondent fixed effects so that identification relies on within-person changes over time rather than cross-sectional comparisons. Some significant differences in the Full Sample columns of Table B.5 (e.g., years of education, years in Mozambique) largely reflect the higher treatment probability among refugees relative to hosts due to stratification, rather than a failure of the randomization within strata.

[16]The baseline survey and first midline survey were conducted in person, while the last two surveys were conducted over the phone.

[17]See Table B.3 for summary statistics of the key variables. Attrition across the different waves was relatively low and balanced across treatment and control groups in the pooled sample and among host community members, as shown in Table B.9 through Table B.11 in the Online Appendix. Among refugees, however, control group members attrited at somewhat higher rates in waves 3 and 4 ($p=0.01$ in both waves). This differential attrition does not affect host-specific or pooled estimates, and treatment effects are already sizable and significant in the first midline when there is no differential attrition.

participants. We conducted a second midline survey in December 2021, 7 months after the cash transfer and 27 months after the start of the program. The cyclone struck the area in March 2022 and our endline survey took place in June 2022, to measure the medium-run effects of the program on social cohesion over the span of 34 months.

We proxy financial security with objective measures of financial assets and income stability, alongside a subjective measure of perceived resilience to unexpected financial shocks. The index aggregates the following variables: i) average monthly household income in the previous 6 months [18]; ii) monthly take-home pay; iii) percent of monthly income saved in the previous month; iv) whether the person worked at least an hour in the previous week; v) whether the person is engaged in a long-term form of employment; and finally vi) the respondent's perceived ease of paying a surprise bill of 6,000 meticais (approximately 94 USD and equivalent to about 2 months of baseline household income).[19] We measure social cohesion as the extent to which individuals bridge social divides, capturing this through three complementary dimensions: trust across group boundaries, willingness to share resources with out-groups, and the formation of cross-group friendships. The social cohesion index therefore includes: i) two separate measures of trust in in-groups and trust in out-groups;[20] ii) a measure of willingness to share resources (government financial support and jobs) with out-groups;[21] and iii) the share of friends who are members of the out-groups.[22]

[18] Monthly pay is converted from Meticais to USD at a rate of 1 Metical = 0.016 USD.

[19] The principal component of this index reveals positive and sizable factor loadings for the first component and an eigenvalue well above 1 at 2.094. See Table B.6 in the Online Appendix.

[20] At baseline, all participants are asked a question about general trust in the community. In subsequent waves of the survey, refugees were asked about the degree to which they trust other refugees (in-groups) and Mozambicans (out-groups) living around the settlement, and analogously, host community members were asked about the degree to which they trust other Mozambicans living in their area (in-groups) and refugees living in Maratane settlement (out-groups).

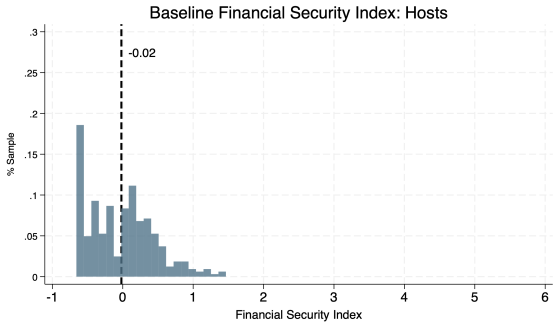
[21] The specific questions asked were the extent to which the respondent agreed with the following statements: "The government of Mozambique should first provide financial support to nationals and then to foreigners" and "When jobs are scarce, employers should give priority to Mozambicans over foreigners". Note that in this setting, Mozambicans refer to refugees as both refugees and foreigners. We used both words interchangeably to ensure that we had a well-defined out-group from the perspective of respondents. We also adjust the sign of the responses of refugees to this question to make sure that the index we are observing increases with a belief that resources should be shared.

[22] Table B.7 shows the positive and sizable factor loadings for the first component and an eigenvalue well above 1 at 1.74. These represent all the variables we collected on financial security in our survey.

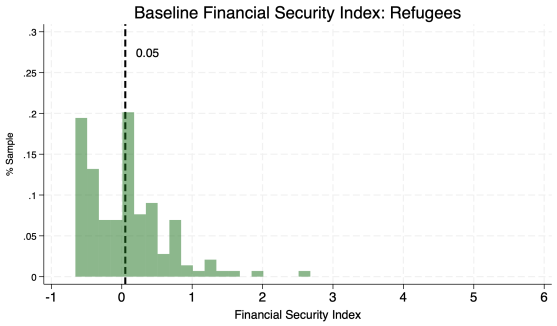
## 2.3 Financial Security and Social Cohesion at Baseline

Figure 3 shows the baseline level of financial security across host community members (panel A) and refugees (panel B). Refugees have slightly higher levels of financial security than hosts, with this difference being driven by higher take-home monthly pay for casual work and higher average monthly household income in the previous 6 months. Panels C and D show the distribution of the social cohesion index at baseline for both refugees and hosts. Refugees are less trusting, but more likely to report that resources should be shared and more likely to befriend hosts. On average, refugees report higher levels of prosociality at baseline when compared to hosts.[23]

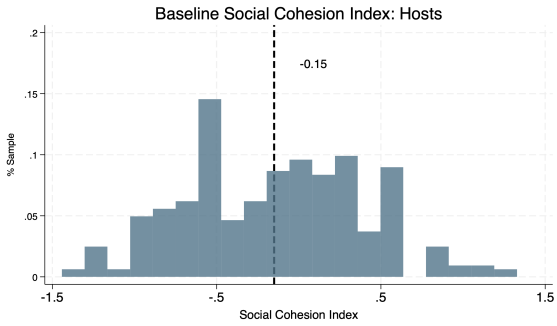
**Figure 3:** Baseline Levels of Financial Security and Social Cohesion



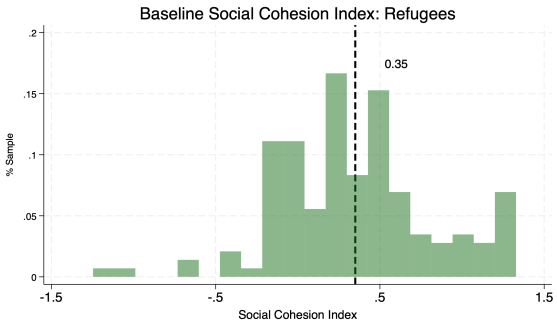

**Panel A: Baseline Financial Security Hosts**




**Panel B: Baseline Financial Security Refugees**




**Panel C: Baseline Social Cohesion Hosts**




**Panel D: Baseline Social Cohesion Refugees**

*Notes:* The figure shows baseline distributions for our Financial Security Index and Social Cohesion Index by Host/Refugee status. The Financial Security Index is an index of 6 standardized variables (ease of paying a surprise bill, % of income saved last month, take-home monthly pay and average monthly household income -over the past 6 months-, whether the respondent has worked for at least one hour during the previous week, and whether the respondent is in a long-term form of employment). Social Cohesion Index at baseline is an index of the following standardized variables (trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs). The vertical dashed line represents the average of the distribution.

[23] See Table B.5 in the Online Appendix. Note also that levels of trust and patterns of interactions between in-groups and out-groups are generally low for both refugees and host community members. On a scale increasing in trust between 1 and 5, both refugees and hosts typically indicate a level of trust of 3 or less when considering entrusting their neighbors with tasks such as holding their keys, caring for their children, or shopping on their behalf.

We begin by examining how financial security correlates with social cohesion among the cross-section of hosts and refugees at baseline.[24] Table 1 reveals that both refugee and host community members with higher financial security are more trusting overall, but financially secure hosts are less willing to share resources with refugees. Given selection into being financially secure, it is hard to firmly establish the reason for this. One possibility is that in an environment with very scarce resources, individuals who get slightly ahead on their own might be more aware of the inherent rivalry in the allocation of resources across groups.[25] Importantly, this cross-sectional pattern likely reflects selection — those who achieve financial security through their own means in a zero-sum environment may do so precisely because they are less inclined to share — and stands in contrast with the causal effect of an exogenous income gain, which we show below, operates in the opposite direction.

Table 1 also explores the correlation between distance and social cohesion at baseline. When it comes to interactions across groups, being close matters – respondents in general report a higher number of interactions with out-groups per week when they live closer to them. But for hosts, more interactions and proximity to refugees at baseline do not translate, on their own, into higher generalized trust or into an increased willingness to share resources with refugees (see Panel C, columns 4 and 5).

# 3 Positive Shock to Financial Security: Experimental Evidence

## 3.1 Livelihoods Intervention

UNHCR and the government of Mozambique implemented a livelihoods (graduation) program as a sequenced package of economic assistance to strengthen financial security and move participants out of extreme poverty. The main intervention aimed to improve the financial security of participants by providing a large cash transfer, language and financial literacy training, vocational training and employment support for either wage or self-employment. The program

[24] The financial security and social cohesion indexes are constructed by first equally weighting the average z-scores of each indicator (obtained by subtracting the control group mean for each wave and dividing it by the control standard deviation) and then by standardizing these again with reference to the control group (Banerjee et al., 2015).

[25] Table C.1 in the Online Appendix shows these correlations at baseline without controls.

Table 1: **Correlation Between Financial Security and Social Cohesion, Baseline**

| | General Trust (stand) | Outgroup Intercts. (stand) | Prop Out-Group Friends (stand) | Share Fin. Support (stand) | Share Jobs (stand) | Social Cohesion Index (stand) |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | **Panel A: Full Sample** | | | | | |
| Financial Security Index | 0.27*** | 0.18*** | 0.03 | -0.13*** | -0.15*** | 0.01 |
| | [0.05] | [0.04] | [0.05] | [0.05] | [0.05] | [0.04] |
| Distance to Out-Group | 0.10** | -0.17*** | 0.05 | 0.07 | -0.01 | 0.09* |
| | [0.05] | [0.05] | [0.05] | [0.05] | [0.05] | [0.05] |
| Mean Dependent | -0.01 | 0.14 | 0.07 | 0.02 | 0.02 | 0.04 |
| Nbr Participants-Waves | 467 | 467 | 467 | 467 | 467 | 467 |
| Adj. R-squared | 0.08 | 0.07 | 0.10 | 0.19 | 0.21 | 0.21 |
| | **Panel B: Only Refugees** | | | | | |
| Financial Security Index | 0.28*** | 0.25*** | -0.11 | -0.10 | -0.17* | -0.04 |
| | [0.09] | [0.06] | [0.08] | [0.08] | [0.09] | [0.07] |
| Distance to Out-Group | 0.03 | -0.12* | -0.23*** | -0.10* | -0.07 | -0.16*** |
| | [0.09] | [0.06] | [0.08] | [0.06] | [0.06] | [0.06] |
| Mean Dependent | -0.09 | 0.29 | 0.47 | 0.57 | 0.59 | 0.66 |
| Nbr Participants-Waves | 144 | 144 | 144 | 144 | 144 | 144 |
| Adj. R-squared | 0.09 | 0.26 | 0.20 | 0.11 | 0.10 | 0.17 |
| | **Panel C: Only Hosts** | | | | | |
| Financial Security Index | 0.27*** | 0.14** | 0.12** | -0.14*** | -0.15*** | 0.04 |
| | [0.05] | [0.06] | [0.05] | [0.05] | [0.06] | [0.06] |
| Distance to Out-Group | 0.13** | -0.19*** | 0.06 | 0.08 | -0.01 | 0.11* |
| | [0.06] | [0.06] | [0.06] | [0.06] | [0.05] | [0.06] |
| Mean Dependent | 0.03 | 0.07 | -0.11 | -0.23 | -0.23 | -0.23 |
| Nbr Participants-Waves | 323 | 323 | 323 | 323 | 323 | 323 |
| Adj. R-squared | 0.09 | 0.04 | 0.02 | 0.07 | 0.09 | 0.04 |
| Controls | Y | Y | Y | Y | Y | Y |

*Notes:* The table shows OLS estimates of regressing the components of the Social Cohesion Index on Financial Security and Distance to the out-group at baseline. General Trust is an index of 3 proxies for baseline trust (comfort in leaving a set of keys with neighbours [1-4], comfort in having neighbour watch over kids [1-4], comfort in giving your neighbour money to pick up groceries [1-4]), constructed by first equally weighting the average z-scores of each indicator, and then by standardising these again with reference to the control group. Column 2 measures the number of times the respondent interacted with a member of the opposite group in the past 7 days. Column 3 measures the proportion of the respondent's friends who are from their out-group. Columns 4-5 measure the extent to which the respondent feels that government financial support and jobs should be shared with out-groups (1-5), respectively. Social Cohesion Index (column 6) is an index which measures 4 proxies for social cohesion in columns 1, 3, 4 and 5 (generalized trust, proportion of out-group friends, willingness to share financial support and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6 month household income, whether the respondent has worked for at least one hour during the past week, and whether the respondent has a stable form of employment), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Distance to Out-Group measures how far (in kms) the respondent lives from the closest out-group member. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

started in late 2019 providing language instruction, financial literacy and job training by mentors. Between July and August 2021, participants received a large cash transfer of 1,000 USD, which was equivalent to approximately 7 months of average (baseline) income. Language instruction was provided in groups but all other activities were individually taught, including financial literacy, which was conducted through an instructional video on a smartphone designed by the research team. There were no specific activities explicitly designed to promote social cohesion or solidarity between refugees and host community members. Study participants were informed that the program aimed to improve livelihoods but no explicit mention was made to improving social cohesion to minimize social desirability bias in the responses to our surveys. Moreover, no explicit link was established between the program and the presence of refugees. To minimize spatial spillover effects, we split the settlement of Maratane into spatial quadrants and participants were selected at random but drawn proportionately from each quadrant, following a local skipping pattern to avoid that treatment and control households would be within a 25 to 30 meter radius of each other. A similar approach was followed for host community members surrounding the camp.

First, we examine whether the livelihoods program improved financial security among treated refugees and hosts. Our core two-way fixed effects specification is:

$$FS_{it} = \theta(T_i * P_t) + X_{it} + \gamma_i + \tau_t + \epsilon_{it} \tag{1}$$

where $FS_{it}$ represents financial security for person $i$ in time period $t$; $T_i$ and $P_t$ denote treatment status and post-treatment period (pooling waves 2, 3 and the endline against baseline), entering only through the interaction $\theta(T_i \times P_t)$; $\tau_t$ are wave fixed effects; $\gamma_i$ are individual fixed effects (capturing all time-invariant characteristics such as gender); and $X_{it}$ is a vector of time-varying control variables which include: household size, age, age interacted with gender and how long the respondent has been living in Mozambique (for refugees).[26] Our main parameter of interest,

[26]We include these controls to correct some imbalance in the overall sample due to our stratification approach across refugees and hosts (see Table B.5 in the Online Appendix). Table B.5 shows strong balance across baseline covariates overall, with some chance imbalances (e.g. household size and a few other variables among hosts). All imbalanced variables are included as covariates in our specifications. Furthermore, our final endline was disrupted in the field due to an unexpected bureaucratic delay in the renewal of our authorization to access the

$\theta$, measures the average treatment effect of the livelihoods program on financial security.[27]

Table 2 reveals that the increase in financial security induced by the livelihoods program was on average equivalent to 1.51 standard deviations of the control group's distribution. This can be interpreted as moving from the median to the 93rd percentile of the control group's financial security, equivalent to a move from 297 USD to 407 USD of monthly income. The effects are sizable across both refugees (1.38 sd) and host community members (1.60 sd). The increase in financial security is driven by improvements in all sub-components of the main index namely monthly take-home pay, savings, average monthly household income (over the previous 6 months), stable employment and ease of paying a surprise bill. The only exception is an indicator of whether the participant worked at least one hour in the previous week, whose insignificance likely reflects a floor effect. This minimal threshold is one the control group is broadly expected to also be able to meet.

### 3.2 Financial Security and Social Cohesion

To examine the impact of changes in financial security on prosociality, we follow two approaches. First, we instrument changes in financial security with our difference-in-differences estimates, shown in Equation 2. In the second stage (Equation 3), we regress Social Cohesion $SC_{it}$ on the change in Financial Security induced by the livelihoods program, $\widehat{FS_{it}}$, and bootstrap standard errors. The exclusion restriction underpinning this approach requires that the program affect social cohesion solely through its impact on financial security. A key concern is that the program may have directly influenced social cohesion through alternative channels such as improvements in mental health, general well-being, increased interactions with out-groups, enhanced communication skills, or broader shifts in social norms. In subsection 3.4 and sub-

settlement. This meant that by chance, some households were surveyed earlier than others as the survey did not follow any specific order. Nevertheless, we include in our baseline specification an additional control for whether the survey was delayed by two months or not in July 2022. Removing this control does not change any of our main results.

[27] No one in our sample declined treatment. We detect slightly higher attrition among control refugees in our second midline and at endline. One concern is that this might lead us to underestimate the effect of the program if the remaining control refugees are positively selected. What we observe, however, is that treatment effects are already sizable and significant even in our first midline when there is no differential attrition, but also that treatment effects for hosts are higher across survey waves, even though unlike refugees, there is no differential attrition for hosts.

Table 2: **Impact of the Livelihoods Program on Financial Security**

| | HH Income (6m) (stand) | Take Home Pay (1m) (stand) | Pct Inc. Saved [0-1] (stand) | Pay Surprise Bill [0-3] (stand) | Any Work (stand) | Stable Employ-ment (stand) | Financial Security Index (stand) |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | **Panel A: Full Sample** | | | | | | |
| Treatment X Post | 0.84*** | 0.80*** | 1.87*** | 1.28*** | 0.15 | 0.39*** | 1.51*** |
| | [0.15] | [0.19] | [0.18] | [0.12] | [0.14] | [0.13] | [0.13] |
| Control Mean (BL) | 267.86 | 282.59 | 0.05 | 1.47 | 0.55 | 0.37 | 0.01 |
| Pctile of Control Group | 80% | 79% | 97% | 90% | 56% | 65% | 93% |
| Nbr Participants-Waves | 1,733 | 1,173 | 1,733 | 1,701 | 1,210 | 1,210 | 1,733 |
| Adj. R-squared | 0.07 | 0.10 | 0.45 | 0.21 | 0.06 | 0.13 | 0.34 |
| | **Panel B: Only Refugees** | | | | | | |
| Treatment X Post | 0.69*** | 1.58*** | 1.49*** | 1.25*** | 0.25 | 0.37 | 1.38*** |
| | [0.25] | [0.32] | [0.34] | [0.22] | [0.24] | [0.24] | [0.24] |
| Control Mean (BL) | 329.97 | 1041.64 | 0.01 | 1.43 | 0.46 | 0.40 | 0.05 |
| Pctile of Control Group | 76% | 94% | 93% | 89% | 60% | 64% | 92% |
| Nbr Participants-Waves | 503 | 268 | 503 | 487 | 332 | 332 | 503 |
| Adj. R-squared | 0.06 | 0.24 | 0.36 | 0.25 | 0.20 | 0.19 | 0.35 |
| | **Panel C: Only Hosts** | | | | | | |
| Treatment X Post | 0.91*** | 0.47** | 2.14*** | 1.31*** | 0.08 | 0.42** | 1.60*** |
| | [0.20] | [0.23] | [0.17] | [0.15] | [0.18] | [0.18] | [0.16] |
| Control Mean (BL) | 251.58 | 128.28 | 0.07 | 1.48 | 0.57 | 0.36 | 0.00 |
| Pctile of Control Group | 82% | 68% | 98% | 90% | 53% | 66% | 94% |
| Nbr Participants-Waves | 1,230 | 905 | 1,230 | 1,214 | 878 | 878 | 1,230 |
| Adj. R-squared | 0.08 | 0.07 | 0.49 | 0.19 | 0.00 | 0.11 | 0.32 |
| Controls | Y | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y | Y |

*Notes:* The table measures the 3 period average effect of the livelihood program on financial security outcomes. HH Income (6m) is average monthly household income over the past 6 months (from reported earnings per month in various activities over the past 6 months). Take-Home pay (1m) is the respondent's reported take-home monthly pay in the previous month. Pct Income Saved is the % of income saved in the previous month. Pay Suprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 mtc, ranging for not at all (0) to very easily (3). Any Work measures whether the respondent worked for at least one hour during the previous week. Stable Employment measures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved in the previous month, take home monthly pay, and average monthly household income (over the past 6 months), whether the respondent has worked for at least one hour during the past week, whether the respondent has a stable form of employment), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. All models include respondent and survey fixed effects, and additionally control for household size and an indicator for having been surveyed in the delayed 2022 survey batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, so treatment effects are measured in standard deviations of the respective control group. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

section 3.5, we examine the exclusion restriction in greater detail. While we cannot fully rule out direct effects of program participation on social cohesion, financial security appears to be the dominant mediator.[28] We estimate the following specifications:

$$[Stage\ 1] : FS_{it} = \theta(T_i * P_t) + \tau_t + \gamma_i + X_{it} + \epsilon_{it} \longrightarrow \widehat{FS_{it}} \tag{2}$$

$$[Stage\ 2] : SC_{it} = \chi\widehat{FS_{it}} + \tau_t + \gamma_i + X_{it} + \epsilon_{it} \tag{3}$$

where $\chi$ represents our coefficient of interest capturing the impact of changes in financial security on changes in social cohesion; $X_{it}$ is a vector of time-varying control variables; $\tau_t$ represent survey wave fixed effects and $\gamma_i$ individual fixed effects. Table 2 shows that exposure to the livelihoods program significantly improved financial security and Table 3 that financial security is positively associated with social cohesion. Panel A, reveals the OLS estimates linking financial security to social cohesion, Panel B the reduced-form impact and Panel C depicts the 2SLS estimates. We find that a one standard deviation in financial security is associated with a 0.36 standard deviation increase in social cohesion. This translates into an overall increase in social cohesion from participation in the livelihoods program of 0.36*1.51=0.54 SD, which is comparable to the reduced form estimate of the effect of the program on social cohesion (0.55 SD, reported in Table 3, Panel B). Importantly, we find that financial security triggered by the program led to a significant improvement in all the sub-components of our social cohesion index. Table C.2 and Table C.3 in the Online Appendix further show that changes in financial security are associated with increases in the prosociality of both refugees (0.34 SD) and hosts (0.35 SD).

### 3.3 Benchmarking and Interpreting Changes in Social Cohesion

We benchmark the main effects of the livelihoods program against cross-country variation in trust, drawing on data from the World Values Survey (WVS) and the Afrobarometer. This exercise focuses exclusively on trust, as comparable measures for other dimensions of social cohesion are not consistently available across these datasets. Our estimated effect on trust

[28] Table 3.4 shows mediation analysis results.

Table 3: Financial Security and Social Cohesion, 2SLS. **Full Sample**

| | Trust In-Group (stand) | Trust Out-Group (stand) | Prop Out-Group Friends (stand) | Share Fin. Support (stand) | Share Jobs (stand) | Social Cohesion Index (stand) |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | **Panel A: OLS** | | | | | |
| Financial Security Index | 0.12*** | 0.12*** | 0.23*** | -0.01 | -0.00 | 0.17*** |
| | [0.03] | [0.03] | [0.02] | [0.03] | [0.03] | [0.02] |
| Control Mean (BL) | 2.94 | 2.94 | 0.16 | 2.73 | 2.70 | -0.01 |
| Pctile of Control Group | 55% | 55% | 59% | 50% | 50% | 57% |
| Nbr Participants-Waves | 1,486 | 1,483 | 1,733 | 1,325 | 1,326 | 1,733 |
| Adj. R-squared | 0.08 | 0.10 | 0.16 | -0.01 | 0.05 | 0.14 |
| | **Panel B: Reduced Form** | | | | | |
| Treatment X Post | 0.22* | 0.37*** | 0.22** | 0.39*** | 0.27** | 0.55*** |
| | [0.12] | [0.12] | [0.11] | [0.12] | [0.12] | [0.11] |
| Control Mean (BL) | 2.94 | 2.94 | 0.16 | 2.73 | 2.70 | -0.01 |
| Pctile of Control Group | 59% | 64% | 59% | 65% | 61% | 71% |
| Nbr Participants-Waves | 1,486 | 1,483 | 1,733 | 1,325 | 1,326 | 1,733 |
| Adj. R-squared | 0.06 | 0.09 | 0.10 | 0.00 | 0.05 | 0.12 |
| | **Panel C: 2SLS [Instrument = Treatment x Post]** | | | | | |
| Financial $\widehat{\text{Security}}$ Index | 0.14* | 0.23*** | 0.14** | 0.28*** | 0.19** | 0.36*** |
| | [0.07] | [0.07] | [0.07] | [0.10] | [0.09] | [0.08] |
| Control Mean (BL) | 2.94 | 2.94 | 0.16 | 2.73 | 2.70 | -0.01 |
| Pctile of Control Group | 56% | 59% | 56% | 61% | 58% | 64% |
| Nbr Participants-Waves | 1,486 | 1,483 | 1,733 | 1,325 | 1,326 | 1,733 |
| First Stage F (KPW) | 133.93 | 133.72 | 127.05 | 92.58 | 92.72 | 127.05 |
| Controls | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |

*Notes:* The table shows OLS [Panel A], Reduced Form [Panel B] and 2SLS [Panel C] estimates for the impact of financial security on social cohesion. Trust ingroup [1-10] asks the respondent how trusting they are of members of their ingroup (ie; refugees for a refugee respondent, hosts for a host respondent). Trust outgroup [1-10] asks the respondent how trusting they are of members of their outgroup (ie; hosts for a refugee respondent, refugees for a host respondent). Prop outgroup friends [0-1] asks the respondent what proportion of their friends belong to the outgroup. Share Fin. Support and Share Jobs measure the willingness to share financial support (1-5) and to share jobs (1-5), respectively. Because Trust ingroup and Trust outgroup were unavailable at baseline, we impute these values using baseline General Trust. Social Cohesion Index is an index which measures 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the respective control group. All models include respondent and survey fixed effects, and additionally control for household size and an indicator for having been surveyed in the delayed July 2022 batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, so treatment effects are measured in standard deviations of the respective control group. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively

is on average 0.19 SD.[29] The cross-country standard deviation in generalized interpersonal trust is 0.43 in the WVS and 0.28 in the Afrobarometer. Our treatment effect corresponds to approximately 44% and 68% of the cross-country standard deviation in trust in the WVS and Afrobarometer, respectively, which suggests sizable effects. In fact, our 0.19 SD impact on trust is equivalent to a move from the level of trust in the Republic of the Congo to the level of trust in Tanzania, or from the level of trust in Bolivia to that of Argentina.

Section 2.3 already suggested that in the cross-section at baseline, hosts with a slightly higher level of financial security were more trusting but less willing to share resources. We also compare high-income individuals at baseline with those who had higher financial security after the intervention using nearest neighbor matching, with exact matching on gender and refugee status. Table C.5 in the Online Appendix[30] suggests that the source of financial security matters for its prosocial effects: program-induced gains predict greater prosociality than equivalent levels of baseline security. Selection into high baseline income prevents, however, a causal interpretation of this comparison.

### 3.4 Mediation Analysis

In this section we consider mechanisms through which the livelihoods program could have improved trust and prosociality. One possible channel is that it improved food security, which could have a direct impact on the physical and mental health of participants. Feeling physically and mentally stronger may release bandwidth constraints and lead to more prosocial behavior (Fredrickson, 2001; Condon et al., 2013; Lange et al., 2013). It is also possible that participation in the program changed overall life and job satisfaction or that it made participants more optimistic about the future, all of which could plausibly lead to more trusting, more open and tolerant relationships with others.

To explore the relative importance of these channels and assess the validity of the exclusion restriction of our instrument, we conduct a mediation analysis following the approach in Imai

[29] This is calculated as the average reduced form estimate on in-group trust (0.14) and out-group trust (0.23) from Table 3.

[30] Table C.5, column 1 presents matches based on absolute income, while column 2 uses income percentiles within each survey wave.

et al. (2010). This approach allows us to quantify the extent to which the estimated treatment effect on social cohesion operates through our proposed main channel of changes in financial security, relative to these other channels. We first regress possible mechanisms such as food security, mental health,[31] the number of interactions with out-groups, overall life or job satisfaction, and a measure of expectations about future employment as a proxy for optimism,[32] on the livelihoods treatment indicator. We then model social cohesion as a function of both the treatment indicator and the impact of each potential mediator. This allows us to estimate the direct effect as the predicted difference in social cohesion for treated individuals with the mediators held constant at their baseline levels. The indirect effect is then the predicted difference in social cohesion due to changes in the mediating factor, which are induced by the treatment. We use non-parametric bootstrapped standard errors for statistical inference.

This mediation exercise, reported in Table 4 shows that financial security accounts for almost 50% of the overall changes in social cohesion.[33] Changes in food security, job satisfaction and optimism explain between 15% and 18%. At the same time, although these factors may be directly influenced by the program, they are also closely related to financial security and likely operate as downstream effects. In contrast, mental health does not mediate the treatment effect on social cohesion: the indirect effect via the Mental Health Index in Table 4 is negligible.[34]. The quality of mental health is extremely low in our setting for both refugees and hosts so it is possible that the livelihoods program on its own, without any intervention specifically targeting mental health, was not enough to improve it (Beltramo et al., 2024). We also estimate

[31] We measure mental health through the PHQ8 and GAD7 questionnaires. See Table B.2 for a description of the questions used to construct the mental health index and the food security index. Both the equal-weight Mental Health Index and the Mental Health principal component (e.g. in the appendix, Table C.22) are constructed from the same four components: depression, anxiety, self-esteem (reverse coded), and loneliness.

[32] We measure optimism with the following survey question: "On a scale of 1 to 5, do you expect to be engaged in this form of employment 2 years from now?" with 1 being very unlikely and 5 being very likely.

[33] Table C.20 shows the findings from the mediation analysis without controlling for covariates.

[34] Table C.22 in the Online Appendix further breaks down the mental health index into its different sub-components. The table reports both an equal-weight index and a principal component, each constructed from the same four variables; differing point estimates therefore reflect the weighting scheme rather than different inputs. In the full sample, there is no significant change in any mental health sub-component. Among hosts, however, there is a significant increase in loneliness (0.35 SD, $p < 0.05$) and in the mental health principal component (0.42 SD, $p < 0.05$), though the aggregate Mental Health Index used in the mediation analysis remains insignificant even for hosts. These host-specific effects do not alter the conclusion that mental health is not a significant mediator of the treatment effect on social cohesion, as confirmed by the near-zero indirect effect via mental health in Table 4

the controlled direct effect of treatment on social cohesion using the sequential g-estimation approach suggested in Acharya et al. (2016) (and prior to that in Vansteelandt (2009)). While this approach does not allow us to estimate the mediation effect or explain explicitly the causal pathways, it is consistent with the fact that the direct effect of the livelihoods treatment on social cohesion is significantly reduced when financial security is accounted for (see Appendix Table C.21). Notably, the resulting estimates are very similar to the causal direct effects we report in Table 4. These findings are consistent with the possibility that the primary pathway from the shocks to social cohesion operate through financial security. While we cannot fully rule out all alternative channels, the dominance of the financial security mechanism and the relatively modest explanatory power of competing alternative factors lend credibility to the exclusion restriction.

Table C.22 in the Online Appendix, column (7), further shows that the livelihoods program did not change reported levels of social capital, measured as whether participants were engaged in any activity in the previous 12 months to solve community problems. Participants also do not report any transfers taking place between groups, which could lead to feelings of reciprocity and solidarity.[35] Similarly, the livelihoods support provided by UNHCR and the government of Mozambique had no effect on in-migration of either refugees or hosts, which could have, indirectly, altered levels of financial security or social cohesion.

Finally, we examine whether the livelihoods intervention produced broader shifts in social norms and attitudes. Our central hypothesis is that while the intervention may have influenced more malleable and context-specific norms, such as those related to resource-sharing with refugees, it is unlikely to have affected more entrenched cultural attitudes. As a placebo test, we investigate the effect of the livelihoods intervention on gender norms, civic attitudes and political beliefs, all of which could represent long-standing societal views.

To test this, we construct a gender norm index based on respondents' agreement with the

[35]Only 1% of our sample reported having received a transfer from a distant relative during our window of analysis. Host community members at baseline lived in large extended family groups, with 82% of respondents in our sample reporting not having any contact with anyone living in the nearest city. Refugees also reported at baseline having limited contact with their places of origin (72% reported not speaking to their networks back home and only 8% intending to return someday).

Table 4: **Mediation Analysis**

| | *Mediators of Treatment → SC:* | | | | | |
|---|---|---|---|---|---|---|
| | Financial Security Index | Food Security Index | Mental Health Index | Job Satisfaction | Life Satisfaction | Engaged in Emp. 2yrs |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Average Causal Mediation Effect | 0.222*** | 0.082*** | -0.003 | 0.075*** | 0.017 | 0.062*** |
| | (0.049) | (0.025) | (0.024) | (0.016) | (0.011) | (0.017) |
| Average Direct Effect | 0.313* | 0.459*** | 0.541*** | 0.338*** | 0.392*** | 0.350*** |
| | (0.133) | (0.121) | (0.128) | (0.064) | (0.070) | (0.066) |
| Total Effect | 0.535*** | 0.541*** | 0.539*** | 0.413*** | 0.410*** | 0.411*** |
| | (0.124) | (0.123) | (0.128) | (0.063) | (0.069) | (0.067) |
| Prop. Mediated | 0.415*** | 0.151*** | -0.005 | 0.179*** | 0.042 | 0.151*** |
| | (0.156) | (0.061) | (0.051) | (0.048) | (0.030) | (0.045) |
| Observations | 1750 | 1750 | 1750 | 1283 | 1283 | 1282 |
| Mediator Model Adj-R2 | 0.333 | 0.184 | 0.045 | 0.066 | 0.047 | 0.056 |
| Outcome Model Adj-R2 | 0.143 | 0.142 | 0.146 | 0.093 | 0.056 | 0.106 |
| Controls | Y | Y | Y | Y | Y | Y |

*Notes:* The table shows results from the mediation analysis between Treatment and Social Cohesion following Imai et al. (2010). Each column presents a separate mediation analysis, where the mediator is Financial Security (Column 1), Food Security (Column 2), Mental Health (Column 3), Job Satisfaction (Column 4), Life Satisfaction (Column 5), and expectations of being employed in the next 2 years (Column 6). For each mediator, we report the Average Causal Mediation Effect, the Average Direct Effect, the Total Effect and the Proportion of the Total Effect that is mediated by the mediator. Social Cohesion Index is an index of 5 proxies for social cohesion (trust in-group, trust out-group, the extent to which the respondent feels that Mozambicans should get priority access to jobs and to government financial support, and the proportion of out-group friends). Financial Security Index is an index of 6 proxies for financial security( ease of paying a surprise bill, % of income saved the previous month, take-home monthly pay, average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour the past week and whether the respondent has a stable form of employment). Food Security Index is an index of 6 proxies for food security (how many meals the respondent had eaten the day before, how many meals children in the respondent's household had eaten the day before, how many meals other adults in the respondent's household had eaten the day before, whether the respondent had not skipped any meals in the previous 30 days, whether the respondent had not been worried about food in the previous 30 days, whether the respondent had been able to eat nutritiously in the previous 30 days, and whether the respondent had gone a full day without eating in the previous 30 days). Mental Health Index is an index of 4 proxies for mental health (depression, anxiety, self-esteem (reverse coded) and loneliness). All indicies are constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Models in column (1)-(3) include respondent and survey fixed effects. Models in columns (4)–(6) omit respondent fixed effects because baseline data are unavailable, which would cause the treatment variable (the mediator) to be dropped. We instead control for survey wave, age, gender, age squared, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique, age interacted with gender, a variable that captures average damage for neighbors within a 1000 m radius weighted by distance, and an indicator for having been surveyed in the July 2022 batch. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

following four statements: (i) men and women should have equal rights to jobs, (ii) more women should be in positions of power, (iii) both husband and wife should contribute to the household income, and (iv) boys and girls should have equal access to education. Table C.23 in the Online Appendix shows that gender norms together with civic attitudes toward the importance of obeying laws and the importance of voting remained largely unchanged throughout our period

of analysis, for both refugees and host community members. This implies that not all attitudes and beliefs shifted as a result of the positive and negative income and employment shocks. The beliefs that did shift were those most closely tied to the allocation of resources within the economy, across salient in-groups and out-groups.

### 3.5 Sensitivity Analysis

We conduct a series of checks on the relationship between financial security and social cohesion. First, Table C.6 and Table C.7 show that our results are not driven by covariates. Second, we examine whether our findings are driven by a particular sub-component of the financial security or social cohesion indexes. Table C.8 in the Online Appendix shows that dropping each of the sub-components in turn from the main Financial Security index delivers very similar estimates, suggesting that there is no specific sub-measure of the index that is driving the results. Similarly, Tables C.9, C.10 and C.11 show that estimates are stable when we drop individual components of the social cohesion index for the OLS, reduced form and 2SLS estimates, respectively. Third, we confirm that our results are similar when instead of an index we use the principal component score for both financial security and social cohesion, as shown in Table C.12.[36] Fourth, we conduct a series of randomization inference tests to account for our sample size. We can easily reject the null hypothesis of no difference between the treatment and control groups, with 1,000 permutations (see Table C.13 in the Online Appendix).

We further evaluate the sensitivity of our IV estimates to potential violations of the exclusion restriction by computing plausibly exogenous bounds following Conley et al. (2012). The baseline 2SLS estimate of the effect of financial security on social cohesion is 0.363 (s.e. 0.077) under the assumption of a valid instrument. Allowing for direct effects of the instrument on the outcome, the implied upper confidence bound remains stable at 0.36 across all specifications, while the lower bound declines from 0.21 when $\gamma = 0$ to 0.09 when $\gamma = 0.2$. Thus, even when permitting moderate violations of the exclusion restriction, the estimated effect remains positive and economically meaningful. These results suggest that our main conclusions are

[36] Most variables load positively on the first principal component for both scores, with eigenvalues well above 1 at 2.094 and 1.739 (see Table B.6 and Table B.7 in the Online Appendix.)

unlikely to be driven by the assumption of perfect instrument exogeneity (see Table C.14 in the Online Appendix).

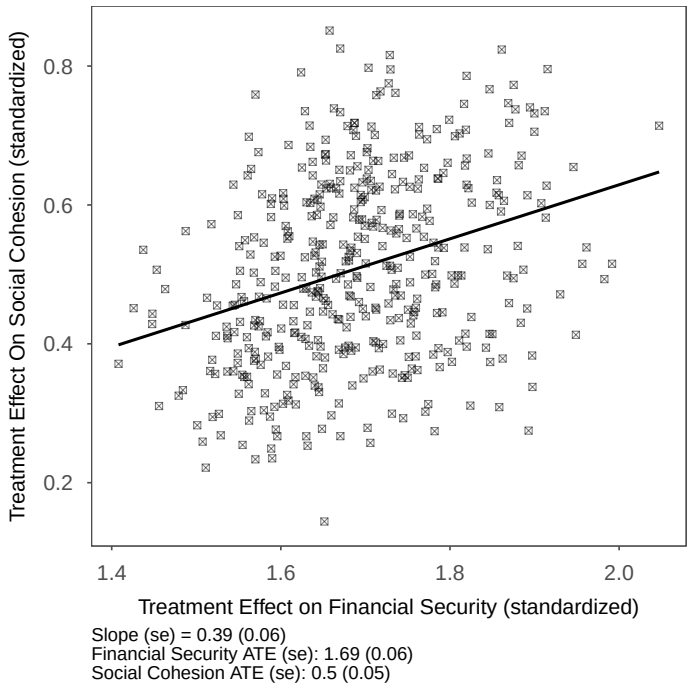
A key concern in our analysis is whether the effect of program participation for an individual depends on whether their neighbors also received the treatment. To account for this possibility, we measure the share of neighbors in the vicinity of each participant who participated in the program and we directly control for this measure in our analysis. Table C.15 and Table C.16 suggest that community level spillovers, even when considering different radii of distance between respondents and their neighbors (ranging from 750 meters, 1 kilometer and 2 kilometers), are limited and cannot explain our core findings. Our community treatment variable is always small and statistically insignificant.

A similar issue is whether the estimated impact of the program is inflated because control households located near treated households are influenced by their neighbors' gains in financial security, potentially through observation or resentment over exclusion from the program. If control households changed their levels of prosociality in response to our treatment, it would represent a SUTVA violation in our estimation. Although survey data indicate limited awareness of the program among control households and our design introduced a buffer area of 20-30 meters between participating households, we verify in Table C.17 and Table C.18 that our results are robust to excluding control units in close proximity (within 50 meters) to treated ones. The estimated effects remain consistent, suggesting that proximity-based bias of control units does not drive our findings. We also consider a measure that specifically captures trust in neighbors under the assumption that neighbors may have been relatively more exposed to any observable signs of treatment.[37] Table C.19 shows that our treated units also have higher levels of trust in neighbors regardless of whether we include in our control sample control units within 50 meters of their dwelling or not. Finally, to further allay concerns with a violation of the exclusion restriction, we follow a generalized random forest approach to validate the link between financial security and social cohesion (Athey et al., 2018). Figure 4 uncovers a strong, positive and statistically significant correlation between both reduced-form treatment effects:

[37] We only captured this measure during the midline and endline surveys, not at baseline.

participants who had the strongest gains in financial security also experienced the largest gains in social cohesion.

**Figure 4:** Correlation of Treatment Effects: Financial Security and Social Cohesion




*Notes:* The figure shows the correlation between treatment effects on financial security (x-axis) and treatment effects on social cohesion (y-axis), computed by generalized random forests (Athey et al., 2019). The average treatment effect (ate) on financial security $\approx 1.69$ (se $= 0.06$) and the average treatment effect on social cohesion $\approx 0.39$ (se $= 0.06$), which are comparable to our OLS estimates. Calibration tests show that the model for treatment effects is well fit by conventional standards, both in capturing the average treatment effect, as well as heterogeneity in the underlying signal. The slope and standard error of the line is shown below the graph. The y-axis is normalized by the average treatment effect on social cohesion, and the x-axis is normalized by the average treatment effect on financial security.

### 3.6 Heterogeneity Analysis: Conditional Average Treatment Effects

We examine whether treatment effects in financial security and social cohesion vary across baseline levels of financial security and social cohesion, and by distance to out-groups, following a generalized random forests approach with bootstrapped sampling (Wager and Athey, 2017). Figure 5 reports treatment effects conditional on the baseline levels of financial security and social cohesion. Panel A reveals that all participants experienced an increase in financial security, regardless of baseline levels of financial security. Panel B reports that the largest effects on social cohesion are experienced by those with higher levels of social cohesion to begin with. Reassuringly, Panel C shows that the impact of the livelihoods program on financial

security does not depend on baseline levels of social cohesion. Panel D explores how physical proximity to the refugee settlement mediates the relationship between financial security and social cohesion. We use the distance between host communities and the refugee settlement as a proxy for inter-group exposure.[38] While treatment effects on social cohesion are positive across all host communities, the gains are slightly larger for hosts living closer to the settlement. This is in line with the possibility that financial security is an important mediator of the impact of contact on social cohesion. Recall that Table 1 already showed that at baseline, hosts residing near refugee settlements reported more frequent interactions with refugees but lower levels of trust. This suggests that proximity without financial security may intensify perceived competition over scarce resources and erode trust, meaning that contact alone may not be sufficient to improve cohesion. The impact of contact may depend critically on one's own financial security.

Overall, these findings are consistent with our main hypothesis that strengthening financial security increases social cohesion, and that these gains are broad-based and not fully driven by increased contact between groups.

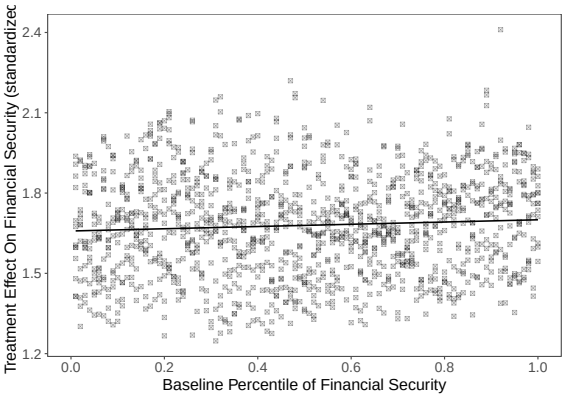
## 4 Negative Shock to Financial Security: a Natural Experiment

To sharpen our identification of the relationship between financial security and social cohesion, we leverage an exogenous climate shock that reduced the financial security of a random subset of participants. In March 2022, two months after our second midline survey and three months before the endline survey, a Category 3 tropical cyclone made landfall in the Nampula region. The storm passed within 5 kilometers of the settlement, causing damage across surrounding communities, which varied with distance from the storm's path and elevation due to the risk of flooding.

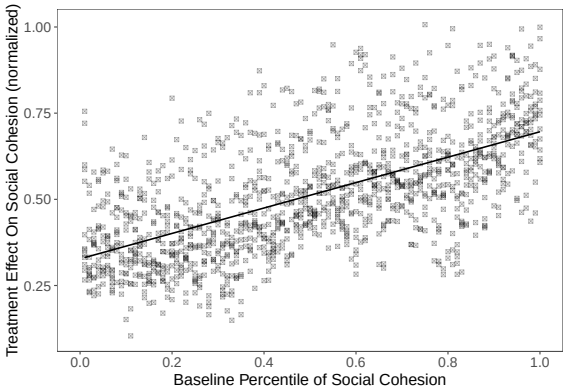
We measure the impact of the cyclone on household-level damage using three sources of data: (i) self-reported damage collected through household surveys, (ii) third-party verification con-

[38] Table B.13 in the Online Appendix shows that these two groups of hosts (close and far from the settlement) are broadly comparable on several demographics.

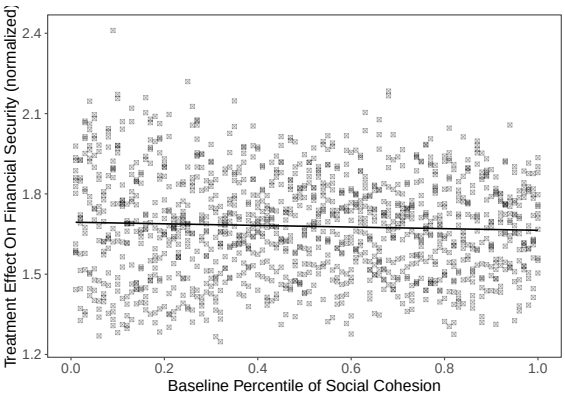
**Figure 5:** Conditional Treatment Effects



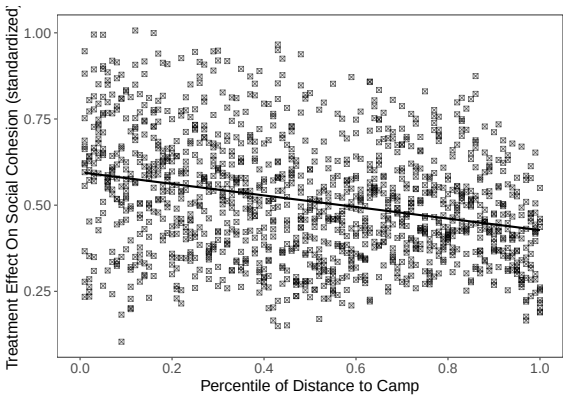

**Panel A. Financial Security by Baseline Financial Security**




**Panel B. Social Cohesion by Baseline Social Cohesion**




**Panel C. Financial Security by Baseline Social Cohesion**



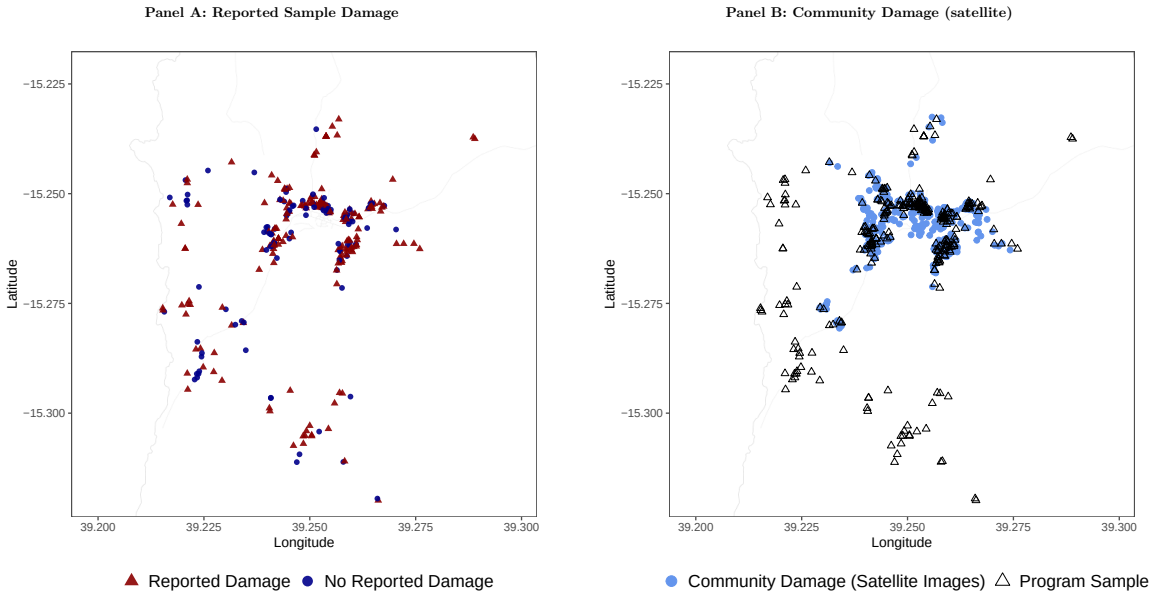

**Panel D. Social Cohesion by Distance to Maratane Camp**

*Notes:* The figure shows treatment effects on financial security and social cohesion (y-axis) conditional on baseline characteristics (x-axis), computed according to generalized random forests (Athey et al., 2019). The average treatment effect (ate) on financial security $\approx 1.67$ (se $= 0.06$) and the average treatment effect on social cohesion $\approx 0.5$ (se $= 0.05$), are comparable to our OLS estimates. Panel A shows the treatment effect on financial security conditional on baseline levels of financial security. Panel B shows the treatment effect on social cohesion conditional on baseline levels of social cohesion. Panel C shows the treatment effect on financial security conditional on baseline levels of social cohesion, holding baseline financial security and all other covariates constant at their median values. Panel D shows the treatment effect on social cohesion conditional on distance to Maratane camp. Calibration tests show that the model for treatment effects is well fit by conventional standards, both in capturing the average treatment effect, as well as heterogeneity in the underlying signal. The slope and standard error of the lines are shown below each graph. The y-axis is normalized by the average treatment effect of each graph's respective dependent variable, with the average treatment effect shown below.

ducted by a partner NGO, and (iii) high-resolution Pleiades-1 satellite imagery obtained from the United Nations Satellite Centre (UNOSAT), capturing dwellings in the Maratane region before and after the cyclone. UNOSAT classifies a dwelling as severely damaged if part of the roof or walls has collapsed and debris is visible around the structure. Figure 6 illustrates the spatial variation in cyclone-related damage, both within our study sample (Panel A) and across the wider area (Panel B).

In this section we focus exclusively on *host* community members, whose geographically dispersed dwellings hold variation in geographic characteristics that predict damage from the storm. By contrast, there is more limited comparable variation among refugees within the refugee settlement due to higher housing density and greater geographic uniformity. [39]

**Figure 6:** Heterogeneity in House Damage due to Cyclone Gombe




*Notes*: Panel A shows the spatial distribution of damaged and non-damaged households among host community members participating in our study. Panel B shows the spatial distribution of damaged dwellings in the whole Maratane area, including dwellings that were not part of our study.

We first predict damage using plausibly exogenous geographic characteristics (*Geo*) that strongly correlate with exposure to excessive rain, flooding and destruction by strong winds such as ele-

[39] The standard deviations of the latitude and longitude coordinates for hosts (refugees) is 0.016 (0.001) and 0.013 (0.004), respectively.

vation[40], latitude and longitude (which capture distance to the cyclone path).[41] The resulting estimation of home destruction is shown in Table E.1 in the Online Appendix.[42]

We then create a binary variable capturing whether the probability of damage is above or below the median of the distribution, and include this predicted house damage variable as a generated regressor in our difference-in-differences estimation. We also account for community-level damage defined as the share of households within a 1000 meter radius of each dwelling that reported being damaged during the cyclone. We start by assessing the impact of the cyclone on financial security and social cohesion restricted to the treated sample, through the following difference-in-difference specification:

$$[\textbf{Damage}] : Damage_i = Geo_i + X_{it} \longrightarrow \widehat{Damage}_i \tag{4}$$

$$[\textbf{FS}] : FS_{it} = \beta_{FS} Post * \widehat{Dam.}_i + \tau_t + \gamma_i + X_{it} \tag{5}$$

$$[\textbf{SC}] : SC_{it} = \beta_{SC} Post * \widehat{Dam.}_i + \tau_t + \gamma_i + X_{it} \tag{6}$$

where $\tau_t$ represents survey wave fixed effects, $\gamma_i$ represents individual fixed effects and $\beta_{FS}$ is our difference-in-differences coefficient of interest. $X_{it}$ is a vector of time-varying controls that include age, age interacted with gender, and household size. Standard errors are clustered at the individual level.

Table 5 reveals that both financial security and prosociality dropped after the cyclone for those with high exposure (high predicted damage) to the cyclone. Figure 7 then allows us to visualize parallel trends between high- and low-damage dwellings prior to the cyclone. The

[40] See Figure E.1 for an illustration of how elevation varies across our sample.

[41] Latitude and longitude were recorded by enumerators during the baseline survey. Elevation was extracted from Google Earth Engine Catalog databases "UCSB-CHG/CHIRPS/DAILY" (precipitation), "CGIAR/SRTM90_V4" (elevation) and "WWF/HydroSHEDS/v1/FreeFlowingRivers_FeatureView" (river distance), respectively. The path of Tropical Cyclone Gombe is mapped from zoom earth at https://zoom.earth/storms/gombe-2022/map=daily. Our findings in this section are very similar if we identify instruments based on LASSO (Least Absolute Shrinkage and Selection Operator) applied to a wider set of geographic characteristics including the presence of trees, shrubs, and built infrastructure around the dwelling.

[42] Table B.14 in the Online Appendix shows that those whose dwellings were damaged by the cyclone were similar to those whose dwellings were not, across key pre-shock characteristics including income, financial security, housing quality, and the social cohesion index. Given the particular path of the cyclone just south of the main city of Nampula, Table B.15 in the Online Appendix also shows that dwellings are not substantially different depending on how far they are from the city.

Table 5: Impact of Cyclone Gombe On Financial Security and Social Cohesion. **Treatment Group and Hosts Only**.

| | (1) | (2) | (3) |
|---|---|---|---|
| | Panel A: Financial Security | | |
| $\widehat{Damage}$ x Post-Gombe | -0.50* | -0.80*** | -0.80*** |
| | [0.28] | [0.26] | [0.26] |
| Nbr Participants-Waves | 322 | 322 | 322 |
| Adj. R-squared | 0.15 | 0.18 | 0.18 |
| | Panel B: Social Cohesion | | |
| $\widehat{Damage}$ x Post-Gombe | -0.25 | -0.45** | -0.45** |
| | [0.23] | [0.22] | [0.22] |
| Nbr Participants-Waves | 322 | 322 | 322 |
| Adj. R-squared | 0.22 | 0.23 | 0.23 |
| | Panel C: Implied Elasticities | | |
| Implied Elasticity (Gombe, SC/FS) | 0.504 | 0.554 | 0.560 |
| Livelihoods Elasticity | 0.391 | 0.391 | 0.391 |
| Difference (Gombe − Livelihoods) | 0.113 | 0.163 | 0.169 |
| | (0.798) | (0.551) | (0.540) |
| Controls | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y |
| **Zero Stage Instruments** | | | |
| Elevation | Y | Y | Y |
| Latitude | Y | Y | Y |
| Longitude | Y | Y | Y |
| Elevation × Latitude | Y | Y | N |
| Elevation × Longitude | Y | N | N |

*Notes:* The table measures the impact of Cyclone Gombe on Financial Security (Panel A) and Social Cohesion (Panel B), and compares the implied elasticities to those from the livelihoods program (Panel C). Financial Security Index is an index of 6 variables (ease of paying a surprise bill, % of income saved last month, take home monthly pay, average monthly household income (over the past 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent has a stable form of employment). Social Cohesion Index is an index which measures 5 proxies for social cohesion ( trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs). Both indices are constructed by first equally weighting the average z-scores of each indicator, and then by standardizing again with reference to the non-damaged group. $\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Column (1) predicts damage from elevation, latitude, longitude, and both interaction terms (elevation × latitude and elevation × longitude). Column (2) omits the elevation × longitude interaction. Column (3) uses only elevation, latitude, and longitude. All columns include respondent and survey fixed effects, and control for household size, a variable capturing average damage for neighbours within a 1000m radius weighted by distance, and an indicator for the delayed 2022 survey batch. The dependent variables in Panels A and B are standardized to the non-damaged group's distribution within each survey, so point effects are measured in standard deviations. Panel C reports the implied elasticity (SC/FS ratio) for each column. The livelihoods reference elasticity is estimated from the treatment arm (hosts only, pre-cyclone surveys, standardized to the control group). The equality test uses a Fieller-type cross-product test: $= \hat{\beta}_{SC,G}\hat{\beta}_{FS,L} - \hat{\beta}_{SC,L}\hat{\beta}_{FS,G}$; $\text{Var}(D)$ is obtained via the delta method applied to the joint bootstrap variance-covariance matrix (500 clustered replications at the respondent level), yielding a $\chi^2(1)$ test statistic. *, **, and *** indicate statistical significance at the 90%, 95%, and 99% confidence level, respectively.

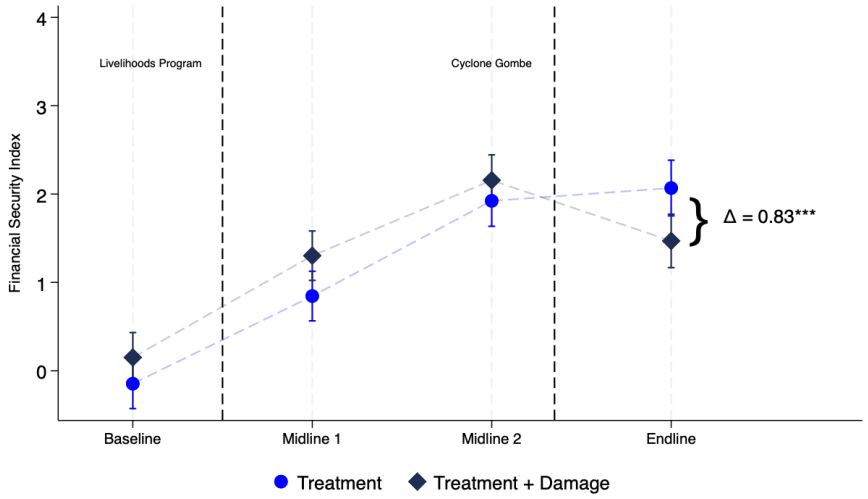
figure summarizes the differential effects of the livelihoods program (the positive shock) and the cyclone (the negative shock) on financial security, for high- and low-damage households. All coefficients are benchmarked against control group households. The figure shows how differences in financial security were zero at baseline (relative to the control group) and then increased significantly with the introduction of the livelihoods program. After the first midline, the increase in financial security reflects the start of the employment support scheme but the largest increase in financial security occurs after the cash transfer takes place, by the second midline survey. When cyclone Gombe struck, we observe a marked divergence in trajectories: households with high damage experienced a 0.83 SD decline in financial security relative to the second midline (which took place approximately two months before the cyclone's landfall). In contrast, financial security remained high and stable among treated households with low exposure to the cyclone. When we analyze the effect of the cyclone on the different sub-components of the financial security index in Table E.4 in the Online Appendix, we find that the key margin that was compromised by the cyclone was average household income in the previous six months, which is consistent with income being redirected to repairing housing infrastructure and mostly replacing crop destruction.[43]

There were no significant effects on actual economic fundamentals such as take-home monthly income or employment. For savings and perceived ability to pay a surprise bill, we observe negative and significant effects for treated households (Table E.4), though the pooled estimate is null. This is driven in part by a floor effect in the control group, where 90% of respondents reported saving nothing at baseline. [44]

[43]Consistent with this interpretation, among hosts in the endline survey, 86% of those with high predicted house damage also experienced crop damage, compared with only 10% of those with low predicted damage. Mean monthly household income was approximately 52% lower for households with crop damage (133 vs. 278 Meticais).

[44]Figure E.3 in the Online Appendix reveals that financial security also decreased slightly in the control group, though the effect is not statistically significant.

**Figure 7:** Impact of Livelihoods and Gombe Shocks on Financial Security. **Treatment Group and Hosts Only**.

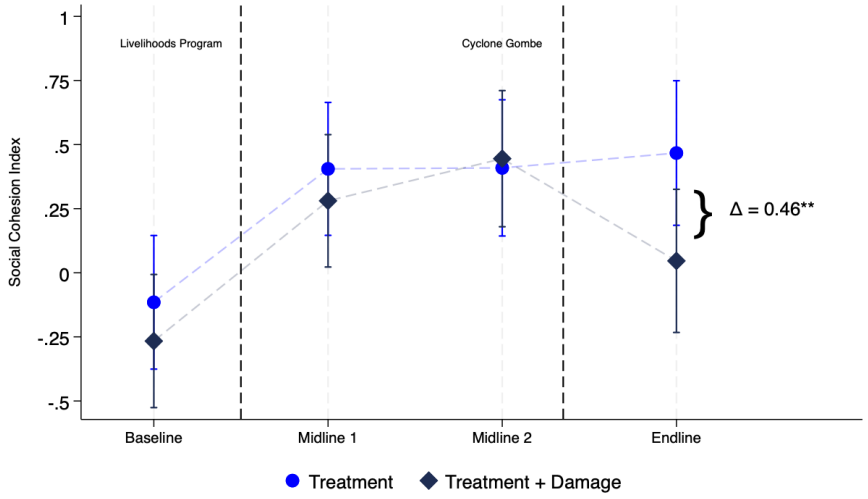



*Notes*: The figure shows the impact of the Livelihoods Program and Climate Shock on Financial Security across time, for the treatment group only. Financial Security is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6 month household income, whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. The y-axis shows the predicted value of Financial Security from a regression of Financial Security on the triple interaction of Treatment x survey x $\widehat{Damage}$ (including all double interactions and base effects). $\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. The model controls for age, gender, age squared, years of education, household size, first component variable for housing amenities, years since arrival in Mozambique, age interacted with gender, a variable that captures average damage for neighbours within a 1000m radius, weighted by distance, and an indicator for July 2022 batch. The dependent variable is standardized to the control group's distribution, within each survey, and so point effects are measured in standard deviations. ***, **, and * indicate the difference $\Delta$ between the damage/non-damage groups at endline is significant at the 99%, 95%, and 90% levels, respectively.

In Figure 8 we track the corresponding evolution of the social cohesion index in response to both positive and negative income shocks. At baseline, levels of social cohesion in the treatment group were statistically indistinguishable from those in the control group. Social cohesion started to increase following the implementation of employment support and the start of savings groups (midline 1). These gains were further amplified after the disbursement of the large cash transfer, which was captured in the second midline survey. Social cohesion then declined significantly for those with high exposure during cyclone Gombe. Indeed, nearly all of the gains associated with the earlier income and employment shocks were effectively undone by the cyclone's impact, underscoring the fragility of social cohesion in the face of climate-induced

adversity.

**Figure 8:** Impact of Treatment and Gombe Shock on Social Cohesion. **Treatment Group and Hosts Only**.




*Notes*: The figure shows the impact of the Livelihoods Program and Climate Shock on Social Cohesion across time, for the treatment group only. Social Cohesion is an index of 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. The y-axis shows the predicted value of Social Cohesion from a regression of Social Cohesion on the triple interaction of Treatment x survey x $\widehat{Damage}$ (including all double interactions and base effects). $\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. The model controls for age, gender, age squarred, years of education, household size, first componment variable for housing amenities, years since arrival in Mozambique, age interacted with gender, a variable that captures average damage for neighbours within a 1000m radius, weighted by distance, and an indicator for July 2022 batch. The dependent variable is standardized to the control group's distribution, within each survey, and so point effects are measured in standard deviations. ***, **, and * indicate the difference $\Delta$ between the damage/non-damage groups at endline is significant at the 99%, 95%, and 90% levels, respectively.

These findings reveal that prosocial behaviors underlying social cohesion are sensitive to individual economic conditions. Prosociality improves when both refugees and host communities experience greater individual financial security, but these gains reverse once they experience negative income shocks. Although the cyclone did not fully erase the program's economic benefits, which suggests that the livelihoods intervention increased household resilience to climate shocks, it significantly undermined its prosocial effects. Among those most damaged by the cyclone, much of the improvement in prosociality was lost.

### 4.1 Mechanisms

Panel C in Table 5 compares the implied elasticities between financial security and social cohesion across the two shocks. The shock yields an implied elasticity of 0.56 (column 1), which is comparable to the implied elasticity obtained from the livelihoods shock in section 3 of 0.391. The difference between these two elasticities is not statistically significant suggesting that both shocks are likely uncovering a fairly stable structural relationship between the variables. The point estimate of the implied elasticity is however higher for cyclone Gombe. This difference is informative about the channels through which each shock operates.

The livelihoods program improved both individual-level material resources and subjective financial confidence simultaneously. By contrast, the cyclone could potentially operate through two reinforcing channels: direct material losses for physically damaged households, and a community-wide recalibration of perceived financial security as the whole community witnessed the shock. This psychological channel could add to the material one: while only some households lost income, all households, including in the control group, could update beliefs about economic vulnerability and reduce trust and willingness to share resources accordingly (Mullainathan and Shafir, 2013; Shah et al., 2015).

We find three patterns in the data that are consistent with a community-level recalibration of perceived financial security. First, all participants – including those unaffected by the cyclone – became less confident in their ability to pay an unexpected bill (0.58 SD decline, $p < 0.001$; Table E.6, Panel B) [45]. Importantly, these effects are insensitive to neighborhood damage intensity across different radii, from 100m to 2000m (columns 1 through 4), suggesting that awareness of the cyclone drove belief change rather than local damage concentration. Second, confidence in the value of savings declined even for non-damaged households, regardless of treatment status (0.59 SD decline; Table E.7, Panel B), despite treated participants having increased their confidence in the value of savings pre-cyclone (Panel A). Third, time preferences shifted toward the

[45] The small, positive coefficient on post-treatment indicator in Panel A of Table E.6 is likely the result of comparing the pre-treatment period (non-harvest season) to the pooled post-treatment period, of which 1/3 of surveys are taken during the harvest season where financial security is high. These patterns are consistent with Table E.10.

present: even individuals with non-damaged households became more present-oriented after the cyclone, increasingly preferring immediate smaller payments over delayed larger amounts (0.57 SD increase; Table E.8). Notably, all of these belief outcomes changed across *all* baseline levels of financial security (Table E.9), consistent with the key mechanism being general belief updating rather than realized income effects.

A potential concern with this interpretation is that the community-wide decline in financial security could reflect seasonal variation or a trend rather than a cyclone-induced shift.[46] We conduct a placebo test using the first midline survey captured in May 2021, which took place in a non-cyclone period, 21 months after the baseline. If generic seasonality drove the post-Gombe decline, we would expect a similar drop among control group hosts between baseline and midline 1. Instead, Table E.10 shows the opposite: both the ability to pay a surprise bill and the propensity to draw from savings *increased* significantly at midline 1 (by 1.06 and 0.59 SD, respectively; both $p < 0.001$). This positive midline 1 result is itself consistent with a harvest-season effect: May falls squarely within Nampula's main harvest season (March–June), when household income is typically at its annual peak. The second midline, conducted in December 2021, shows no comparable trend in the control group, confirming that the pattern is specific to the harvest period rather than reflecting a general time trend. Crucially, Cyclone Gombe also struck during the harvest season, meaning that respondents would ordinarily have been at a seasonally high point in financial security relative to the December midline. Seasonal patterns therefore work in the opposite direction of our estimates: if anything, they would predict higher financial security at endline, making our estimated negative effect of the cyclone a lower bound. The absence of any comparable decline in a non-cyclone period, combined with the fact that seasonal forces work against our identifying variation, strengthens the interpretation that the post-Gombe shifts in the ability to pay an unexpected bill reflect cyclone-induced belief updating rather than seasonal factors. These findings also underscore that our difference-in-differences estimates capture the marginal effect of physical destruction over and above the general scarcity mindset induced by the cyclone.

[46] Note that the community-wide psychological recalibration documented in this section, which affected all households regardless of damage, is absorbed into the post-cyclone main effect and is not reflected in our main estimates of the impact of damage in the rest of the analysis.

Overall, the cyclone appears to have changed households perceived financial security, leading them to overestimate financial fragility. This cognitive recalibration operated independently and in addition to, the actual material losses experienced by some. This is consistent with the cyclone functioning as a salient community-wide signal of economic vulnerability. The dual-channel nature of aggregate climate shocks implies that their social costs could exceed what the direct income effects alone would predict.

We then assess the impact of cyclone Gombe on social cohesion. Table E.5 in the Online Appendix reveals a reduction in trust in out-groups and in the proportion of out-group friends. This suggests that the experience of the climate shock triggers immediate concerns with the allocation of resources between in-groups and out-groups as well as the predisposition to interact with, and integrate, out-groups.

### 4.2 Sensitivity Analysis

We implement a causal forest approach Athey et al. (2018) to estimate conditional average treatment effects of Cyclone Gombe on financial security and social cohesion. Individual-level treatment effect estimates are positively correlated ($\rho = 0.12, p < 0.01$). A comparison from right before the cyclone until the endline shows that households experiencing larger financial losses exhibited proportionally larger declines in social cohesion (see Figure E.2). Fourth, Figure E.4 shows that social cohesion declined among control group hosts as well, ruling out the possibility that the drop reflects a reference point effect whereby treated individuals simply adjusted their expectations of financial security upward after the program.

One potential concern with our analysis is that the geographic characteristics that we use to predict damage could somehow be correlated with general social norms. We conduct falsification tests to show that this is not the case: the geographic characteristics of each dwelling are largely uncorrelated with each individual's general views on gender and civic attitudes (see Table E.2).

An interesting question is whether individuals are affected by their own experience or by the experiences of their neighbors. The observed reduction in social cohesion following the cyclone

might be sizable because of the compounding effect of both direct and indirect exposure to the damage caused by the cyclone. Mindsets may change not only because of changes to one's own financial security but because of pervasive and significant destruction in your neighboring community. To account for this possibility, we include in our baseline specification the share of damaged dwellings in the vicinity of each given participating household, leveraging satellite data that includes households that were damaged but that are not part of our sample. This provides a more complete picture of the potential neighborhood damage effects associated with the cyclone, even beyond our survey. As a test, we consider different radii in the definition of "neighborhood", including 100 m, 500 m, 1km and 2 km from the respondent's dwelling. Table E.3 in our Online Appendix shows that our findings are fairly stable across specifications that account for the level of damage in the community.

Additional potential confounders include unobserved transfers or loans across experimental groups and makeshift rebuilding (with substandard materials) by controls. Yet our survey reports no private transfers or formal bank loans, and our satellite imagery through October 2023 (18 months after the shock) revealed that less than 8% of homes in the area had been rebuilt with any materials. This is evidence of a broadly stalled recovery process, including for controls.

A final concern relates to the functional form of the effects detected. One possibility is that we are just measuring an immediate overreaction to a salient disaster. To minimize this concern, we conducted our survey approximately 3-4 months after the cyclone had landed in the study area, to ensure that enough time had lapsed between the event and our measurement of beliefs and behaviors.

## 5 Conclusion

We show that financial security shapes trust and prosocial behavior toward out-groups through its role as a cognitive frame that moves individuals between cooperative and competitive outlooks. A randomized livelihoods program increased financial security by 1.51 SD and social

cohesion by 0.55 SD: host community members became more trusting of refugees, formed more cross-group friendships, and expressed greater willingness to share resources. A subsequent cyclone reversed these gains, reducing financial security by 0.80 SD and social cohesion by 0.45 SD. Critically, both shocks exhibited broadly similar implied elasticities between social cohesion and financial security (0.56 vs. 0.39, statistically indistinguishable), suggesting a stable structural relationship between the variables. The livelihoods program operated primarily through improved financial security itself, rather than through alternative channels such as mental health improvements, increased contact with refugees, or shifts in broader social norms. The cyclone operated through two complementary channels: direct material losses for damaged households, and community-wide psychological recalibration, since even undamaged households reduced prosociality toward refugees after updating beliefs about economic fragility. These findings challenge models of fixed social preferences: the same individuals shifted between prosocial and self-protective behavior based on transient economic circumstances, indicating that financial security operates as a framing device rather than simply reflecting stable traits or structural incentives. This malleability has important policy implications: economic inclusion programs can promote integration in fragmented communities, but their effects are fragile in the face of negative shocks. In contexts exposed to climate risk, where extreme weather events are increasing in frequency and severity, sustaining social cohesion requires protecting both material security and collective psychological resilience against the belief-updating effects of salient negative economic shocks.

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# Online Appendix

## Financial Security, Climate Shocks and Social Cohesion

(Not for Publication)

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# A Poverty Score Card

The poverty score card used to identify eligibility to social protection programs by the Government of Mozambique and the World Bank included the following questions:

- "How many household members are 15-years old or younger?"
- "Can the head of the household read and write in Portuguese?"
- "What is the main material of the floor of the residence?"
- "What type of fuel does your household mainly use for cooking?"
- "Does the household have a table in good working order?"
- "How many beds and cots does the household have in good working order?"
- "Does the household have a television in good working order?"
- "Does the household have a charcoal or electric iron in good working order?"
- "Does the household have a cell phone in good working order?"

Values are benchmarked against the 2014 National Poverty Assessment conducted by the National Institute of Statistics in Mozambique.

# B Descriptives

Table B.1: Description of Financial Security and Social Cohesion Indexes

| Variable | Description | Source |
|---|---|---|
| *Financial Security Index* | Average of the z-scores of the responses to the following questions: "What was your household's last 6 months' income?", "What was your take-home monthly pay for your current/last job or income earning activity?", "Imagine that you have an unexpected need and you need to come up with 6000 MTN. How likely is it that you could come up with this amount within the next week?", "If you save money, approximately what part of your monthly income is saved?". | Survey |
| *Social Cohesion Index* | Average of the z-scores of the responses to the following questions: "On a scale from 1 to 10, how much can refugees living in Maratane Camp be trusted?", "On a scale from 1 to 10, how much can Mozambican nationals living close to Maratane be trusted?", "Of all your friends, how many of them are local Mozambicans (if the respondent is refugee)/refugees (if the respondent is Mozambican)?", "When jobs are scarce, employers should give priority to Mozambicans over foreigners/refugees", "The government of Mozambique should first provide financial support to nationals and only after these needs are met should it support foreigners/refugees". At Baseline, the first two questions were not measured; instead we use a measure of generalized trust, which is the average of the z-scores of the responses to the following questions: "How comfortable would you be asking a neighbour to keep a set of keys to your home for emergencies, for example if you were locked out?", "How comfortable would you be asking a neighbour to mind your child(ren) for half an hour?", "If you were ill and at home on your own, and needed someone to collect a few shopping essentials, how comfortable would you feel asking a neighbour to do this for you?". | Survey |

Table B.2: Descriptions of Food Security and Mental Health Index

| Variable | Description | Source |
|---|---|---|
| *Food Security Index* | Average of the z-scores of the responses to the following questions: "How many meals did you eat yesterday?", "How many meals did your children eat yesterday?", "How many meals did the adults in your household eat yesterday?", "In the past 30 days, was there a time when you or others in your household had to skip meals because there was not enough money or resources for food?", "In the past 30 days, was there a time when you or others in your household were worried you would not have enough food to eat because of lack of money or other resources?", "In the past 30 days, was there a time when you or others in your household were unable to eat healthy and nutritious food because of lack of money or other resources?", "In the last 30 days, did you or any others in your household ever not eat for a whole day because there wasn't enough money for food?" All scores were rescaled so that the food security index is increasing in food security. | Survey |
| *Mental Health Index* | Average of the z-scores resulting from standardized assessments for depression, anxiety, self-esteem, and loneliness, drawn from Patient Health Questionnaire 9 (PHQ9) and the Generalized Anxiety Disorder 7 (GAD7) questionnaires that are commonly used to measure Mental Health.<br>**Depression** is the total score from the following set of questions: "Over the last 2 weeks, how often have you had little interest or pleasure in doing things?", "Over the last 2 weeks, how often have you experienced feeling down or hopeless?", "Over the last 2 weeks, how often have you experienced trouble falling or staying asleep, or sleeping too much?", "Over the last 2 weeks, how often have you experienced trouble concentrating in things, such as reading the newspaper or watching television?".<br>**Anxiety** is the total score from the following set of questions: "Over the last 2 weeks, how often have you felt afraid as if something awful might happen?", "Over the last 2 weeks, how often have you experienced feeling nervous, anxious or on edge?".<br>**Loneliness** is the total score from the following questions: "How often do you feel that there is no one you can turn to?", "How often do you feel isolated from others?", "How often do you feel that your interests and ideas are not shared by those around you?", "How often do you feel you have a lot in common with the people around you?", drawn from the UCLA loneliness scale.<br>**Self-esteem** is the total score from the following set of questions: "I am able to do things as well as most other people", "I feel useless at times", "I feel that I am a person of worth, at least on an equal plane with others", "I feel that I have a number of good qualities", "I feel I do not have much to be proud of", "I take a positive attitude toward myself", "In most ways my life is close to ideal". All questions were taken from the Rosenberg Self-Esteem scale.<br>Drawn from Kroenke et al. (2001); Cumbe et al. (2020) and Spitzer et al. (2006) | Survey |

Table B.3: Summary Statistics for Survey Variables at Baseline

| Variable | Observations | Mean | Std.Dev | Range | Legend |
|---|---|---|---|---|---|
| **Financial Security Index** | 467 | 0.05 | 0.80 | [-0.6, 4.6] | - |
| HH Income (6m) | 467 | 277.86 | 541.42 | [0.0, 5600.0] | [1] |
| Take Home Pay (1m) | 343 | 291.44 | 691.52 | [0.0, 5600.0] | [1] |
| Pct Inc. Saved [0-1] | 467 | 0.07 | 0.20 | [0.0, 1.0] | [1] |
| Pay Surprise Bill [0-3] | 459 | 1.45 | 0.77 | [1.0, 4.0] | [2] |
| Any Work | 417 | 0.55 | 0.50 | [0.0, 1.0] | [2] |
| Salaried Employment | 417 | 0.37 | 0.48 | [0.0, 1.0] | [2] |
| **Social Cohesion Index** | 467 | -0.02 | 0.56 | [-1.9, 1.5] | - |
| Trust In-Group [1-10] | NA | - | - | - | [2] |
| Trust Out-Group [1-10] | NA | - | - | - | [2] |
| Prop Out-Group Friends [0-1] | 467 | 0.18 | 0.21 | [0.0, 1.0] | [1] |
| Share Gov. Fin. Support [1-5] | 467 | 2.78 | 1.23 | [1.0, 5.0] | [2] |
| Share Jobs [1-5] | 467 | 2.74 | 1.28 | [1.0, 5.0] | [2] |
| **General Trust** | 467 | 2.95 | 0.77 | [1.0, 4.0] | - |
| Leave Keys With Neighbors | 467 | 2.15 | 0.93 | [1.0, 4.0] | [4] |
| Leave Kids With Neighbors | 467 | 2.92 | 0.84 | [1.0, 4.0] | [4] |
| Ask Neighbor Go Shopping | 467 | 1.94 | 0.78 | [1.0, 4.0] | [2] |
| **Food Security Index** | 467 | 0.06 | 0.65 | [-1.5, 2.1] | - |
| Meals Yesterday | 467 | 1.79 | 0.57 | [0.0, 3.0] | [2] |
| Meals Children Yesterday | 443 | 1.92 | 0.63 | [0.0, 4.0] | [2] |
| Meals Adults Yesterday | 467 | 1.79 | 0.61 | [0.0, 3.0] | [2] |
| Meals Skipped Last 30 Days | 466 | 0.15 | 0.36 | [0.0, 1.0] | [2] |
| Worries About Food Last 30 Days | 466 | 0.16 | 0.37 | [0.0, 1.0] | [1] |
| Unable Eat Health Last 30 Days | 465 | 0.13 | 0.34 | [0.0, 1.0] | [1] |
| Not Eat Whole Day Last 30 Days | 465 | 0.52 | 0.50 | [0.0, 1.0] | [1] |
| **Mental Health Index** | 467 | -0.10 | 1.05 | [-3.0, 2.6] | - |
| Depression Score | 467 | 4.10 | 2.35 | [0.0, 12.0] | [1] |
| Anxiety Score | 467 | 5.16 | 2.77 | [0.0, 12.0] | [3] |
| Self-Esteem Issues Score | 467 | 4.16 | 1.52 | [1.0, 7.9] | [3] |
| Loneliness Score | 467 | 6.59 | 2.21 | [0.0, 12.0] | [2] |

*Notes:*. All values are in USD. A higher number in the variables above indicates the following: [1] A higher amount reported, [2] More agreement with the statement, [3] A higher severity in the condition assessed, [4] More comfort with the statement. NA means that the variable was not captured at baseline.

Table B.4: Refugee Languages and Origins

| | All Refugees N=144 | Burundi N=36 | DRC N=91 | Rwanda N=15 | Somalia N=2 |
|---|---|---|---|---|---|
| Portuguese | 0.45 | 0.39 | 0.47 | 0.36 | 1.00 |
| French | 0.52 | 0.42 | 0.59 | 0.36 | 0.00 |
| Makonde | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Makua | 0.02 | 0.03 | 0.01 | 0.07 | 0.00 |
| Changana | 0.01 | 0.00 | 0.00 | 0.07 | 0.00 |
| Chuabo | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sena | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Ajaua | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Ndau | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Lomue | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 |
| Nyanja | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Chope | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Swahili | 0.96 | 0.92 | 0.99 | 0.93 | 0.50 |

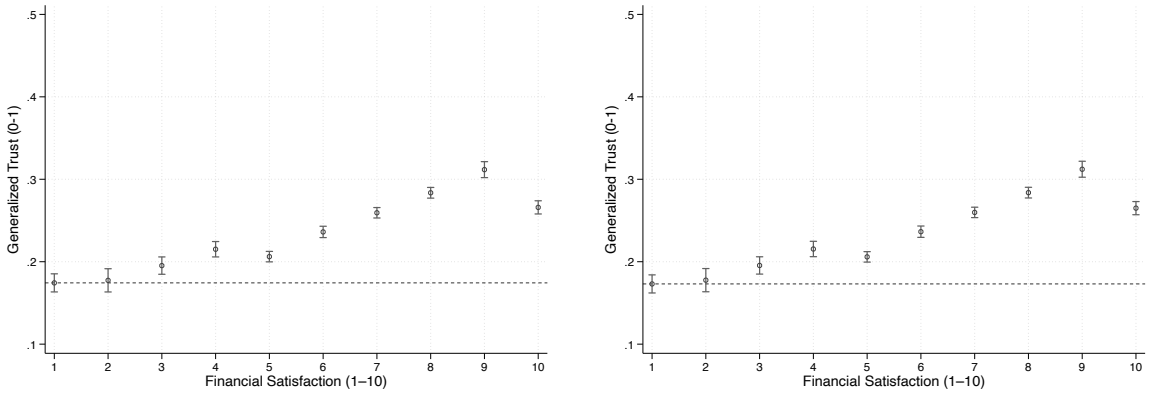
*Notes*: The table shows the proportion of refugees who speak laguages covered in the sample, by country of origin.

Table B.5: Sample Balance, Control vs Treatment

| | *Full Sample* | | | *Refugees* | | | *Hosts* | | |
|---|---|---|---|---|---|---|---|---|---|
| | C | T | Δ p-val | C | T | Δ p-val | C | T | Δ p-val |
| Age | 34.74 | 35.87 | 0.34 | 36.59 | 37.17 | 0.79 | 34.23 | 34.74 | 0.73 |
| Male | 0.54 | 0.55 | 0.94 | 0.52 | 0.66 | 0.07 | 0.55 | 0.45 | 0.10 |
| Single | 0.31 | 0.37 | 0.17 | 0.55 | 0.52 | 0.76 | 0.24 | 0.24 | 0.96 |
| Speaks Portuguese | 0.48 | 0.57 | 0.04 | 0.41 | 0.48 | 0.40 | 0.49 | 0.65 | 0.01 |
| Household Size | 4.71 | 5.89 | 0.00 | 4.32 | 4.90 | 0.32 | 4.82 | 6.74 | 0.00 |
| Religious | 0.95 | 0.96 | 0.41 | 0.97 | 0.95 | 0.52 | 0.94 | 0.98 | 0.17 |
| Housing Index | 0.02 | -0.03 | 0.70 | 1.30 | 0.81 | 0.04 | -0.34 | -0.76 | 0.94 |
| Years of Education | 2.59 | 3.37 | 0.01 | 5.35 | 5.51 | 0.77 | 1.82 | 1.52 | 0.19 |
| Years in Mozambique | 28.82 | 23.04 | 0.00 | 9.56 | 9.52 | 0.96 | 34.23 | 34.74 | 0.73 |
| Take Home Monthly Pay | 288.60 | 297.96 | 0.91 | 928.60 | 593.08 | 0.23 | 127.77 | 141.72 | 0.55 |
| Household Income 6m | 269.72 | 292.60 | 0.66 | 346.04 | 356.65 | 0.94 | 248.29 | 237.19 | 0.81 |
| % Income Saved Last Month | 0.05 | 0.09 | 0.06 | 0.01 | 0.04 | 0.08 | 0.06 | 0.13 | 0.02 |
| Ease Paying Surprise Bill [0-3] | 1.47 | 1.42 | 0.51 | 1.41 | 1.45 | 0.73 | 1.48 | 1.38 | 0.31 |
| Any Work {0,1} | 0.55 | 0.57 | 0.69 | 0.44 | 0.53 | 0.33 | 0.58 | 0.60 | 0.72 |
| Salaried Employment {0,1} | 0.37 | 0.36 | 0.77 | 0.39 | 0.38 | 0.92 | 0.37 | 0.34 | 0.65 |
| Financial Security Index | -0.00 | 0.16 | 0.14 | -0.00 | 0.28 | 0.19 | -0.00 | 0.06 | 0.66 |
| General Trust | 2.95 | 2.94 | 0.85 | 2.93 | 2.84 | 0.51 | 2.95 | 3.01 | 0.51 |
| Share Government Financial Support [1-5] | 0.00 | -0.15 | 0.14 | -0.00 | -0.07 | 0.68 | 0.00 | -0.21 | 0.10 |
| Share Jobs [1-5] | 0.00 | -0.12 | 0.22 | -0.00 | -0.04 | 0.83 | 0.00 | -0.20 | 0.13 |
| Prop. of Out-Group Friends [0-1] | 0.16 | 0.20 | 0.06 | 0.23 | 0.28 | 0.20 | 0.14 | 0.13 | 0.56 |
| Social Cohesion Index | -0.00 | -0.09 | 0.35 | 0.00 | -0.00 | 1.00 | -0.00 | -0.17 | 0.16 |
| *Observations* | 301 | 166 | | 66 | 77 | | 235 | 89 | |

*Notes:* The table shows baseline differences between treatment and control on basic demographic variables as well as key outcome variables of interest. Housing Index is the first component of 6 proxies for housing quality (number of rooms, house has electricity, has a toilet that flushes, quality of materials used to construct the roof, quality of materials used to construct the floor, and quality of materials used to construct the walls). Ease Paying Surprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 MTN, ranging from not at all (0) to very easily (3). Any Work captures whether the respondent has engaged in any type of casual work in the previous week. Salaried Employment captures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. General Trust is an index of 3 proxies for trust (comfort in leaving a set of keys with neighbors [1-4], comfort in having a neighbor watch over kids [1-4], comfort in giving your neighbor money to pick up groceries [1-4]). Share Jobs and Share Government Financial Support measure willingness to share jobs (1-5) and financial support (1-5), respectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the respondent reports belonging to the opposite group (refugees for hosts, hosts for refugees). Social Cohesion Index is an index of 4 proxies for social cohesion (generalized trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group.

**Figure B.1:** Financial Security and Trust: World Values Survey (2017-2022)




**Panel A: Perceived Financial Security and Trust** **Panel B: Controlling for Income Rank**

*Notes:* Panel A shows the relationship between financial satisfaction, which is increasing on a scale of 1 to 10 and generalized trust. Panel B shows the same relationship as in Panel A, but now controlling for actual, self-reported income rank. These estimates include wave fixed effects.

Table B.6: Factor Loadings and Eigenvalues for Financial Security PCA

| **Variable** | **Comp 1** | **Comp 2** |
|---|---|---|
| Take Home Pay | 0.473 | -0.129 |
| Pct. Income Saved | 0.390 | -0.390 |
| Pay Surprise Bill | 0.356 | -0.423 |
| Household Income 6m | 0.478 | -0.106 |
| Any Work | 0.357 | 0.573 |
| Salaried Employment | 0.375 | 0.560 |
| **Eigenvalues** | 2.095 | 1.333 |

Table B.7: Factor Loadings and Eigenvalues for Social Cohesion Principal Component Analysis

| **Variable** | **Comp 1** | **Comp 2** |
|---|---|---|
| Trust In-Group | -0.109 | 0.498 |
| Trust Out-Group | 0.150 | 0.667 |
| Sharing Financial Support | 0.686 | -0.099 |
| Sharing Jobs | 0.684 | -0.098 |
| Prop. Out-Group Friends | 0.166 | 0.537 |
| **Eigenvalues** | 1.739 | 1.377 |

Table B.8: Factor Loadings and Eigenvalues for Housing PCA

| **Variable** | **Comp 1** | **Comp 2** |
|---|---|---|
| Wall Quality | -0.224 | 0.322 |
| Roof Quality | 0.435 | -0.292 |
| Floor Quality | 0.537 | 0.258 |
| Electricity | 0.359 | 0.520 |
| Toilet | 0.540 | 0.055 |
| Rooms | -0.227 | 0.686 |
| **Eigenvalues** | 1.694 | 1.264 |

Table B.9: Sample Balance, Attritors vs Respondents

| | *Full Sample* | | | *Refugees* | | | *Hosts* | | |
|---|---|---|---|---|---|---|---|---|---|
| | A = 0 | A = 1 | Δ p-val | A = 0 | A = 1 | Δ p-val | A = 0 | A = 1 | Δ p-val |
| Treatment | 0.36 | 0.36 | 0.99 | 0.60 | 0.36 | 0.01 | 0.26 | 0.35 | 0.27 |
| Age | 35.40 | 33.78 | 0.30 | 37.71 | 34.50 | 0.19 | 34.53 | 33.08 | 0.49 |
| Male | 0.53 | 0.66 | 0.04 | 0.58 | 0.64 | 0.53 | 0.51 | 0.68 | 0.05 |
| Single | 0.32 | 0.37 | 0.40 | 0.52 | 0.56 | 0.74 | 0.24 | 0.19 | 0.46 |
| Speaks Portuguese | 0.52 | 0.45 | 0.28 | 0.46 | 0.42 | 0.67 | 0.54 | 0.49 | 0.51 |
| Household Size | 5.22 | 4.64 | 0.10 | 4.82 | 4.06 | 0.25 | 5.37 | 5.22 | 0.71 |
| Religious | 0.95 | 0.96 | 0.79 | 0.94 | 1.00 | 0.15 | 0.95 | 0.92 | 0.35 |
| Housing Index | -0.05 | 0.29 | 0.04 | 0.90 | 1.44 | 0.05 | -0.41 | -0.83 | 0.94 |
| Years of Education | 2.83 | 3.07 | 0.53 | 5.62 | 4.89 | 0.25 | 1.79 | 1.30 | 0.13 |
| Years in Mozambique | 27.76 | 21.40 | 0.00 | 9.59 | 9.39 | 0.85 | 34.53 | 33.08 | 0.49 |
| Take Home Monthly Pay | 290.51 | 297.28 | 0.95 | 904.12 | 448.56 | 0.14 | 127.93 | 164.16 | 0.30 |
| Household Income 6m | 288.22 | 221.90 | 0.34 | 378.53 | 272.18 | 0.50 | 254.56 | 172.97 | 0.20 |
| % Income Saved Last Month | 0.07 | 0.05 | 0.42 | 0.03 | 0.01 | 0.47 | 0.08 | 0.08 | 0.97 |
| Ease Paying Surprise Bill [0-3] | 1.44 | 1.49 | 0.59 | 1.38 | 1.58 | 0.18 | 1.46 | 1.41 | 0.67 |
| Any Work {0,1} | 0.55 | 0.55 | 0.99 | 0.47 | 0.50 | 0.78 | 0.58 | 0.59 | 0.85 |
| Stable Employment {0,1} | 0.36 | 0.42 | 0.34 | 0.36 | 0.47 | 0.27 | 0.36 | 0.38 | 0.83 |
| Financial Security Index | 0.06 | 0.05 | 0.98 | 0.17 | 0.10 | 0.80 | 0.02 | 0.00 | 0.94 |
| General Trust | 2.93 | 3.04 | 0.24 | 2.85 | 2.98 | 0.42 | 2.95 | 3.10 | 0.26 |
| Share Government Financial Support [1-5] | -0.07 | 0.04 | 0.39 | -0.08 | 0.07 | 0.45 | -0.07 | 0.01 | 0.66 |
| Share Jobs [1-5] | -0.05 | 0.01 | 0.66 | -0.03 | 0.01 | 0.86 | -0.06 | 0.01 | 0.71 |
| Prop. of Out-Group Friends [0-1] | 0.17 | 0.20 | 0.22 | 0.26 | 0.25 | 0.83 | 0.14 | 0.16 | 0.56 |
| Social Cohesion Index | -0.06 | 0.12 | 0.17 | -0.04 | 0.12 | 0.48 | -0.07 | 0.12 | 0.27 |
| *Observations* | 394 | 73 | | 107 | 36 | | 287 | 37 | |

*Notes:* The table shows baseline differences between respondents and attritors on basic demographic variables as well as key outcome variables of interest. Housing Index is the first component of 6 proxies for housing quality (number of rooms, house has electricity, has a toilet that flushes, quality of materials used to construct the roof, quality of materials used to construct the floor, and quality of materials used to construct the walls). Ease Paying Surprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 MTN, ranging from not at all (0) to very easily (3). Any Work captures whether the respondent has engaged in any type of casual work in the previous week. Salaried Employment captures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. General Trust is an index of 3 proxies for trust (comfort in leaving a set of keys with neighbors [1-4], comfort in having a neighbor watch over kids [1-4], comfort in giving your neighbor money to pick up groceries [1-4]). Share Jobs and Share Government Financial Support measure willingness to share jobs (1-5) and financial support (1-5), respectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the respondent reports belonging to the opposite group (refugees for hosts, hosts for refugees). Social Cohesion Index is an index of 4 proxies for social cohesion (generalized trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group.

Table B.10: Sample Balance, Attritors vs Respondents, Wave 2 (Midline 1)

| | *Full Sample* | | | *Refugees* | | | *Hosts* | | |
|---|---|---|---|---|---|---|---|---|---|
| | A = 0 | A = 1 | Δ p-val | A = 0 | A = 1 | Δ p-val | A = 0 | A = 1 | Δ p-val |
| Treatment | 0.36 | 0.29 | 0.59 | 0.55 | 0.40 | 0.37 | 0.28 | 0.14 | 0.43 |
| Age | 35.32 | 30.47 | 0.11 | 37.32 | 31.40 | 0.16 | 34.48 | 29.14 | 0.24 |
| Male | 0.54 | 0.59 | 0.72 | 0.60 | 0.50 | 0.53 | 0.52 | 0.71 | 0.31 |
| Single | 0.32 | 0.47 | 0.20 | 0.53 | 0.60 | 0.66 | 0.24 | 0.29 | 0.76 |
| Speaks Portuguese | 0.51 | 0.41 | 0.41 | 0.46 | 0.30 | 0.33 | 0.54 | 0.57 | 0.85 |
| Household Size | 5.16 | 4.18 | 0.14 | 4.68 | 3.90 | 0.49 | 5.37 | 4.57 | 0.36 |
| Religious | 0.95 | 1.00 | 0.35 | 0.95 | 1.00 | 0.50 | 0.95 | 1.00 | 0.54 |
| Housing Index | -0.02 | 0.61 | 0.05 | 0.98 | 1.70 | 0.13 | -0.45 | -0.93 | 0.94 |
| Years of Education | 2.87 | 2.88 | 0.99 | 5.54 | 4.00 | 0.15 | 1.75 | 1.29 | 0.52 |
| Years in Mozambique | 27.15 | 16.59 | 0.01 | 9.67 | 7.80 | 0.29 | 34.48 | 29.14 | 0.24 |
| Take Home Monthly Pay | 279.00 | 634.67 | 0.08 | 769.71 | 950.86 | 0.72 | 130.24 | 192.00 | 0.41 |
| Household Income 6m | 277.67 | 282.73 | 0.97 | 351.21 | 359.04 | 0.98 | 246.82 | 173.71 | 0.60 |
| % Income Saved Last Month | 0.07 | 0.00 | 0.17 | 0.03 | 0.00 | 0.47 | 0.08 | 0.00 | 0.33 |
| Ease Paying Surprise Bill [0-3] | 1.44 | 1.59 | 0.45 | 1.42 | 1.60 | 0.48 | 1.45 | 1.57 | 0.69 |
| Any Work {0,1} | 0.55 | 0.50 | 0.67 | 0.49 | 0.33 | 0.37 | 0.58 | 0.71 | 0.47 |
| Stable Employment {0,1} | 0.37 | 0.38 | 0.96 | 0.39 | 0.33 | 0.74 | 0.36 | 0.43 | 0.71 |
| Financial Security Index | 0.06 | 0.01 | 0.86 | 0.17 | -0.05 | 0.61 | 0.01 | 0.09 | 0.84 |
| General Trust | 2.93 | 3.22 | 0.14 | 2.88 | 3.00 | 0.65 | 2.96 | 3.52 | 0.05 |
| Share Government Financial Support [1-5] | -0.06 | 0.24 | 0.24 | -0.06 | 0.23 | 0.41 | -0.06 | 0.26 | 0.41 |
| Share Jobs [1-5] | -0.04 | -0.07 | 0.93 | -0.01 | -0.15 | 0.70 | -0.06 | 0.05 | 0.78 |
| Prop. of Out-Group Friends [0-1] | 0.17 | 0.21 | 0.53 | 0.26 | 0.20 | 0.41 | 0.14 | 0.21 | 0.28 |
| Social Cohesion Index | -0.04 | 0.26 | 0.23 | -0.00 | 0.01 | 0.98 | -0.06 | 0.62 | 0.07 |
| *Observations* | 450 | 17 | | 133 | 10 | | 317 | 7 | |

*Notes:* The table shows baseline differences between respondents and attritors of wave 2 on basic demographic variables as well as key outcome variables of interest. Housing Index is the first component of 6 proxies for housing quality (number of rooms, has electricity, has a toilet that flushes, quality of materials used to construct the roof, quality of materials used to construct the floor, and quality of materials used to construct the walls). Ease Paying Surprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 MTN, ranging from not at all (0) to very easily (3). Any Work captures whether the respondent has worked for at least one hour during the past week. Salaried Employment captures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. General Trust is an index of 3 proxies for trust (comfort in leaving a set of keys with neighbors [1-4], comfort in having a neighbor watch over kids [1-4], comfort in giving your neighbor money to pick up groceries [1-4]).Share Jobs and Share Government Financial Support measure willingness to share jobs (1-5) and financial support (1-5), respectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the respondent reports belonging to the opposite group (refugees for hosts, hosts for refugees). Social Cohesion Index is an index of 4 proxies for social cohesion (generalized trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group.

Table B.11: Sample Balance, Attritors vs Respondents, Wave 3 (Midline 2)

| | *Full Sample* | | | *Refugees* | | | *Hosts* | | |
|---|---|---|---|---|---|---|---|---|---|
| | A = 0 | A = 1 | Δ p-val | A = 0 | A = 1 | Δ p-val | A = 0 | A = 1 | Δ p-val |
| Treatment | 0.36 | 0.31 | 0.44 | 0.60 | 0.31 | 0.01 | 0.27 | 0.31 | 0.65 |
| Age | 35.50 | 32.60 | 0.09 | 38.04 | 32.45 | 0.04 | 34.53 | 32.76 | 0.45 |
| Male | 0.53 | 0.69 | 0.02 | 0.58 | 0.66 | 0.46 | 0.51 | 0.72 | 0.02 |
| Single | 0.32 | 0.40 | 0.23 | 0.53 | 0.55 | 0.81 | 0.24 | 0.24 | 0.96 |
| Speaks Portuguese | 0.52 | 0.45 | 0.32 | 0.46 | 0.41 | 0.68 | 0.54 | 0.48 | 0.54 |
| Household Size | 5.23 | 4.40 | 0.03 | 4.80 | 3.97 | 0.25 | 5.40 | 4.83 | 0.20 |
| Religious | 0.95 | 0.95 | 0.86 | 0.95 | 1.00 | 0.21 | 0.96 | 0.90 | 0.16 |
| Housing Index | -0.04 | 0.31 | 0.05 | 0.93 | 1.44 | 0.09 | -0.42 | -0.82 | 0.94 |
| Years of Education | 2.80 | 3.34 | 0.19 | 5.45 | 5.38 | 0.92 | 1.78 | 1.31 | 0.20 |
| Years in Mozambique | 27.57 | 21.05 | 0.00 | 9.59 | 9.34 | 0.83 | 34.53 | 32.76 | 0.45 |
| Take Home Monthly Pay | 286.46 | 332.66 | 0.70 | 853.36 | 514.61 | 0.32 | 127.53 | 178.00 | 0.19 |
| Household Income 6m | 288.39 | 203.59 | 0.26 | 384.53 | 222.90 | 0.34 | 251.23 | 184.28 | 0.34 |
| % Income Saved Last Month | 0.07 | 0.04 | 0.37 | 0.03 | 0.00 | 0.18 | 0.08 | 0.09 | 0.93 |
| Ease Paying Surprise Bill [0-3] | 1.43 | 1.55 | 0.27 | 1.39 | 1.62 | 0.15 | 1.45 | 1.48 | 0.84 |
| Any Work {0,1} | 0.55 | 0.56 | 0.95 | 0.47 | 0.52 | 0.65 | 0.58 | 0.59 | 0.95 |
| Stable Employment {0,1} | 0.36 | 0.44 | 0.22 | 0.36 | 0.48 | 0.28 | 0.36 | 0.41 | 0.55 |
| Financial Security Index | 0.06 | 0.07 | 0.95 | 0.18 | 0.04 | 0.61 | 0.01 | 0.09 | 0.68 |
| General Trust | 2.93 | 3.06 | 0.21 | 2.84 | 3.07 | 0.18 | 2.96 | 3.06 | 0.51 |
| Share Government Financial Support [1-5] | -0.07 | 0.07 | 0.34 | -0.08 | 0.11 | 0.40 | -0.07 | 0.03 | 0.64 |
| Share Jobs [1-5] | -0.05 | 0.01 | 0.65 | -0.04 | 0.05 | 0.70 | -0.06 | -0.02 | 0.85 |
| Prop. of Out-Group Friends [0-1] | 0.17 | 0.21 | 0.15 | 0.26 | 0.23 | 0.52 | 0.13 | 0.19 | 0.12 |
| Social Cohesion Index | -0.06 | 0.17 | 0.11 | -0.04 | 0.17 | 0.37 | -0.07 | 0.17 | 0.22 |
| *Observations* | 409 | 58 | | 114 | 29 | | 295 | 29 | |

*Notes:* The table shows baseline differences between respondents and attritors of wave 3 on basic demographic variables as well as key outcome variables of interest. Housing Index is the first component of 6 proxies for housing quality (number of rooms, has electricity, has a toilet that flushes, quality of materials used to construct the roof, quality of materials used to construct the floor, and quality of materials used to construct the walls). Ease Paying Surprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 MTN, ranging from not at all (0) to very easily (3). Any Work captures whether the respondent has worked for at least one hour during the past week. Salaried Employment captures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. General Trust is an index of 3 proxies for trust (comfort in leaving a set of keys with neighbors [1-4], comfort in having a neighbor watch over kids [1-4], comfort in giving your neighbor money to pick up groceries [1-4]).Share Jobs and Share Government Financial Support measure willingness to share jobs (1-5) and financial support (1-5), respectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the respondent reports belonging to the opposite group (refugees for hosts, hosts for refugees). Social Cohesion Index is an index of 4 proxies for social cohesion (generalized trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group.

Table B.12: Sample Balance, Attritors vs Respondents, Wave 4 (Endline)

| | *Full Sample* | | | *Refugees* | | | *Hosts* | | |
|---|---|---|---|---|---|---|---|---|---|
| | A = 0 | A = 1 | Δ p-val | A = 0 | A = 1 | Δ p-val | A = 0 | A = 1 | Δ p-val |
| Treatment | 0.36 | 0.33 | 0.66 | 0.59 | 0.29 | 0.01 | 0.27 | 0.36 | 0.33 |
| Age | 35.28 | 33.91 | 0.47 | 36.99 | 36.46 | 0.85 | 34.60 | 31.14 | 0.19 |
| Male | 0.54 | 0.61 | 0.37 | 0.60 | 0.58 | 0.90 | 0.52 | 0.64 | 0.28 |
| Single | 0.32 | 0.41 | 0.19 | 0.51 | 0.62 | 0.32 | 0.24 | 0.18 | 0.53 |
| Speaks Portuguese | 0.52 | 0.46 | 0.45 | 0.45 | 0.42 | 0.74 | 0.54 | 0.50 | 0.72 |
| Household Size | 5.13 | 5.09 | 0.91 | 4.66 | 4.46 | 0.79 | 5.32 | 5.77 | 0.37 |
| Religious | 0.95 | 0.96 | 0.90 | 0.95 | 1.00 | 0.26 | 0.95 | 0.91 | 0.35 |
| Housing Index | -0.03 | 0.30 | 0.10 | 0.96 | 1.40 | 0.17 | -0.42 | -0.90 | 0.94 |
| Years of Education | 2.85 | 3.04 | 0.67 | 5.58 | 4.71 | 0.23 | 1.77 | 1.23 | 0.19 |
| Years in Mozambique | 27.52 | 19.83 | 0.00 | 9.55 | 9.46 | 0.94 | 34.60 | 31.14 | 0.19 |
| Take Home Monthly Pay | 285.52 | 349.00 | 0.62 | 838.64 | 556.00 | 0.42 | 130.73 | 142.00 | 0.79 |
| Household Income 6m | 276.81 | 287.44 | 0.90 | 340.36 | 408.27 | 0.71 | 251.77 | 155.64 | 0.23 |
| % Income Saved Last Month | 0.07 | 0.04 | 0.34 | 0.03 | 0.02 | 0.81 | 0.08 | 0.06 | 0.58 |
| Ease Paying Surprise Bill [0-3] | 1.46 | 1.39 | 0.59 | 1.43 | 1.46 | 0.86 | 1.47 | 1.32 | 0.38 |
| Any Work {0,1} | 0.55 | 0.53 | 0.82 | 0.50 | 0.38 | 0.33 | 0.57 | 0.68 | 0.32 |
| Stable Employment {0,1} | 0.37 | 0.40 | 0.71 | 0.39 | 0.38 | 0.95 | 0.36 | 0.41 | 0.64 |
| Financial Security Index | 0.07 | -0.02 | 0.64 | 0.18 | 0.01 | 0.56 | 0.02 | -0.05 | 0.77 |
| General Trust | 2.93 | 3.07 | 0.24 | 2.88 | 2.92 | 0.84 | 2.95 | 3.24 | 0.08 |
| Share Government Financial Support [1-5] | -0.06 | 0.06 | 0.42 | -0.06 | 0.06 | 0.61 | -0.07 | 0.07 | 0.54 |
| Share Jobs [1-5] | -0.04 | -0.04 | 0.97 | -0.01 | -0.07 | 0.81 | -0.06 | -0.01 | 0.82 |
| Prop. of Out-Group Friends [0-1] | 0.17 | 0.20 | 0.47 | 0.26 | 0.25 | 0.87 | 0.14 | 0.14 | 0.95 |
| Social Cohesion Index | -0.05 | 0.10 | 0.36 | -0.01 | 0.03 | 0.89 | -0.06 | 0.18 | 0.27 |
| *Observations* | 421 | 46 | | 119 | 24 | | 302 | 22 | |

*Notes:* The table shows baseline differences between respondents and attritors of wave 4 on basic demographic variables as well as key outcome variables of interest. Housing Index is the first component of 6 proxies for housing quality (number of rooms, has electricity, has a toilet that flushes, quality of materials used to construct the roof, quality of materials used to construct the floor, and quality of materials used to construct the walls). Ease Paying Surprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 MTN, ranging from not at all (0) to very easily (3). Any Work captures whether the respondent has worked for at least one hour during the past week. Salaried Employment captures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. General Trust is an index of 3 proxies for trust (comfort in leaving a set of keys with neighbors [1-4], comfort in having a neighbor watch over kids [1-4], comfort in giving your neighbor money to pick up groceries [1-4]).Share Jobs and Share Government Financial Support measure willingness to share jobs (1-5) and financial support (1-5), respectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the respondent reports belonging to the opposite group (refugees for hosts, hosts for refugees). Social Cohesion Index is an index of 4 proxies for social cohesion (generalized trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group.

Table B.13: Sample Balance, Hosts Who Live Close Vs Hosts Who Live Far From the Settlement

| | *Full Sample* | | | *Control* | | | *Treatment* | | |
|---|---|---|---|---|---|---|---|---|---|
| | N = 0 | N = 1 | Δ p-val | N = 0 | N = 1 | Δ p-val | N = 0 | N = 1 | Δ p-val |
| Age | 36.20 | 33.22 | 0.03 | 36.21 | 32.83 | 0.04 | 36.18 | 34.08 | 0.37 |
| Male | 0.57 | 0.50 | 0.22 | 0.59 | 0.53 | 0.38 | 0.50 | 0.43 | 0.52 |
| Single | 0.23 | 0.24 | 0.85 | 0.24 | 0.24 | 0.97 | 0.21 | 0.25 | 0.75 |
| Speaks Portuguese | 0.44 | 0.60 | 0.01 | 0.37 | 0.58 | 0.00 | 0.68 | 0.64 | 0.72 |
| Household Size | 4.98 | 5.58 | 0.02 | 4.43 | 5.09 | 0.02 | 6.86 | 6.69 | 0.73 |
| Religious | 0.92 | 0.97 | 0.04 | 0.91 | 0.96 | 0.07 | 0.96 | 0.98 | 0.57 |
| Housing Index | -0.55 | -0.40 | 0.13 | -0.47 | -0.25 | 0.09 | -0.84 | -0.72 | 0.94 |
| Years of Education | 1.51 | 1.88 | 0.09 | 1.63 | 1.96 | 0.19 | 1.11 | 1.70 | 0.16 |
| Take Home Monthly Pay | 119.28 | 138.82 | 0.36 | 104.94 | 143.19 | 0.07 | 171.89 | 128.24 | 0.44 |
| Household Income 6m | 236.47 | 250.75 | 0.73 | 225.57 | 264.26 | 0.45 | 274.26 | 220.17 | 0.44 |
| % Income Saved Last Month | 0.08 | 0.09 | 0.68 | 0.06 | 0.07 | 0.61 | 0.14 | 0.12 | 0.75 |
| Ease Paying Surprise Bill [0-3] | 1.46 | 1.46 | 1.00 | 1.42 | 1.53 | 0.32 | 1.57 | 1.29 | 0.10 |
| Any Work {0,1} | 0.50 | 0.64 | 0.02 | 0.47 | 0.65 | 0.01 | 0.61 | 0.59 | 0.92 |
| Stable Employment {0,1} | 0.31 | 0.40 | 0.09 | 0.30 | 0.42 | 0.08 | 0.32 | 0.35 | 0.80 |
| Financial Security Index | -0.10 | 0.09 | 0.11 | -0.20 | 0.14 | 0.01 | 0.23 | -0.02 | 0.33 |
| General Trust | 3.04 | 2.93 | 0.19 | 2.98 | 2.94 | 0.67 | 3.25 | 2.91 | 0.03 |
| Share Government Financial Support [1-5] | 0.13 | -0.18 | 0.01 | 0.21 | -0.15 | 0.01 | -0.13 | -0.24 | 0.65 |
| Share Jobs [1-5] | -0.02 | -0.08 | 0.59 | 0.13 | -0.09 | 0.11 | -0.50 | -0.06 | 0.08 |
| Prop. of Out-Group Friends [0-1] | 0.15 | 0.13 | 0.31 | 0.16 | 0.13 | 0.25 | 0.12 | 0.13 | 0.87 |
| Social Cohesion Index | 0.12 | -0.15 | 0.01 | 0.20 | -0.14 | 0.01 | -0.15 | -0.19 | 0.85 |
| *Observations* | 125 | 199 | | 97 | 138 | | 28 | 61 | |

*Notes:* The table shows baseline differences between hosts who live close to the settlement (within 1km, N=1) and hosts who live far from the settlement (outside 1km, N=0) on basic demographic variables as well as key outcome variables of interest. Housing Index is the first component of 6 proxies for housing quality (number of rooms, house has electricity, has a toilet that flushes, quality of materials used to construct the roof, quality of materials used to construct the floor, and quality of materials used to construct the walls). Ease Paying Surprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 MTN, ranging from not at all (0) to very easily (3). Any Work captures whether the respondent has engaged in any type of casual work in the previous week. Salaried Employment captures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. General Trust is an index of 3 proxies for trust (comfort in leaving a set of keys with neighbors [1-4], comfort in having a neighbor watch over kids [1-4], comfort in giving your neighbor money to pick up groceries [1-4]). Share Jobs and Share Government Financial Support measure willingness to share jobs (1-5) and financial support (1-5), respectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the respondent reports belonging to the opposite group (refugees for hosts, hosts for refugees). Social Cohesion Index is an index of 4 proxies for social cohesion (generalized trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group.

Table B.14: Sample Balance, Damage vs No Damage

| | *Full Sample* | | | *Refugees* | | | *Hosts* | | |
|---|---|---|---|---|---|---|---|---|---|
| | D = 0 | D = 1 | Δ p-val | D = 0 | D = 1 | Δ p-val | D = 0 | D = 1 | Δ p-val |
| Age | 35.83 | 34.88 | 0.57 | 37.49 | 36.35 | 0.88 | 34.82 | 34.48 | 0.41 |
| Male | 0.53 | 0.55 | 0.64 | 0.63 | 0.56 | 0.75 | 0.47 | 0.54 | 0.29 |
| Single | 0.34 | 0.30 | 0.32 | 0.54 | 0.48 | 0.50 | 0.22 | 0.26 | 0.63 |
| Speaks Portuguese | 0.52 | 0.51 | 0.74 | 0.45 | 0.46 | 0.94 | 0.56 | 0.53 | 0.77 |
| Household Size | 5.21 | 5.07 | 0.87 | 4.70 | 4.62 | 0.96 | 5.53 | 5.20 | 0.32 |
| Religious | 0.96 | 0.95 | 0.80 | 0.96 | 0.94 | 0.51 | 0.96 | 0.95 | 0.54 |
| Wall Quality | 3.32 | 3.40 | 0.23 | 2.88 | 2.48 | 0.08 | 3.58 | 3.65 | 0.21 |
| Roof Quality | 1.20 | 1.23 | 0.79 | 1.21 | 1.25 | 0.28 | 1.19 | 1.22 | 0.15 |
| Floor Quality | 1.35 | 1.17 | 0.01 | 1.78 | 1.65 | 0.79 | 1.09 | 1.04 | 0.25 |
| Has Electricity | 0.32 | 0.23 | 0.12 | 0.54 | 0.62 | 0.70 | 0.18 | 0.13 | 0.19 |
| Housing Index | 0.09 | -0.12 | 0.06 | 0.93 | 1.00 | 0.38 | -0.42 | -0.43 | 0.94 |
| Years of Education | 3.05 | 2.71 | 0.47 | 5.54 | 5.63 | 0.49 | 1.53 | 1.92 | 0.09 |
| Take Home Monthly Pay | 361.45 | 232.40 | 0.24 | 863.67 | 806.94 | 0.71 | 149.40 | 119.75 | 0.39 |
| Household Income 6m | 357.21 | 218.48 | 0.03 | 443.34 | 207.66 | 0.27 | 304.75 | 221.41 | 0.08 |
| % Income Saved Last Month | 0.05 | 0.09 | 0.09 | 0.03 | 0.03 | 0.96 | 0.06 | 0.10 | 0.24 |
| Ease Paying Surprise Bill [0-3] | 1.47 | 1.44 | 0.81 | 1.51 | 1.33 | 0.45 | 1.45 | 1.48 | 0.65 |
| Any Work {0,1} | 0.58 | 0.54 | 0.72 | 0.47 | 0.53 | 0.52 | 0.64 | 0.54 | 0.17 |
| Stable Employment {0,1} | 0.40 | 0.34 | 0.49 | 0.36 | 0.42 | 0.81 | 0.43 | 0.32 | 0.23 |
| Financial Security Index | 0.15 | 0.01 | 0.40 | 0.23 | 0.12 | 0.76 | 0.10 | -0.02 | 0.60 |
| General Trust | 2.89 | 2.96 | 0.29 | 2.86 | 2.90 | 0.94 | 2.90 | 2.98 | 0.14 |
| Share Government Financial Support [1-5] | -0.01 | -0.10 | 0.48 | -0.07 | -0.04 | 0.87 | 0.02 | -0.12 | 0.42 |
| Share Jobs [1-5] | -0.02 | -0.06 | 0.92 | -0.07 | 0.07 | 0.77 | 0.01 | -0.10 | 0.68 |
| Prop. of Out-Group Friends [0-1] | 0.20 | 0.15 | 0.03 | 0.29 | 0.22 | 0.20 | 0.15 | 0.13 | 0.74 |
| Social Cohesion Index | 0.01 | -0.09 | 0.41 | 0.02 | -0.04 | 0.94 | 0.00 | -0.10 | 0.37 |
| *Observations* | 177 | 244 | | 67 | 52 | | 110 | 192 | |

*Notes:* The table shows baseline differences between respondents affected by Cyclone Gombe and respondents unaffected by Cyclone Gombe on basic demographic variables as well as key outcome variables of interest. Housing Index is the first component of 6 proxies for housing quality (number of rooms, house has electricity, has a toilet that flushes, quality of materials used to construct the roof, quality of materials used to construct the floor, and quality of materials used to construct the walls). Ease Paying Surprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 MTN, ranging from not at all (0) to very easily (3). Any Work captures whether the respondent has engaged in any type of casual work in the previous week. Salaried Employment captures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. General Trust is an index of 3 proxies for trust (comfort in leaving a set of keys with neighbors [1-4], comfort in having a neighbor watch over kids [1-4], comfort in giving your neighbor money to pick up groceries [1-4]). Share Jobs and Share Government Financial Support measure willingness to share jobs (1-5) and financial support (1-5), respectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the respondent reports belonging to the opposite group (refugees for hosts, hosts for refugees). Social Cohesion Index is an index of 4 proxies for social cohesion (generalized trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group.

Table B.15: Sample Balance, Hosts Who Live Close Vs Hosts Who Live Far From the City

| | *All Hosts* | | | *Control* | | | *Treatment* | | |
|---|---|---|---|---|---|---|---|---|---|
| | N = 0 | N = 1 | Δ p-val | N = 0 | N = 1 | Δ p-val | N = 0 | N = 1 | Δ p-val |
| Age | 36.69 | 31.67 | 0.00 | 36.50 | 31.64 | 0.00 | 37.16 | 31.77 | 0.01 |
| Male | 0.60 | 0.44 | 0.00 | 0.63 | 0.46 | 0.01 | 0.51 | 0.38 | 0.21 |
| Single | 0.21 | 0.27 | 0.26 | 0.23 | 0.25 | 0.81 | 0.16 | 0.33 | 0.08 |
| Speaks Portuguese | 0.48 | 0.60 | 0.03 | 0.44 | 0.55 | 0.08 | 0.59 | 0.72 | 0.19 |
| Household Size | 5.36 | 5.33 | 0.91 | 4.70 | 4.96 | 0.33 | 7.06 | 6.35 | 0.12 |
| Religious | 0.95 | 0.95 | 0.76 | 0.94 | 0.95 | 0.76 | 1.00 | 0.95 | 0.12 |
| Housing Index | -0.51 | -0.40 | 0.28 | -0.32 | -0.36 | 0.74 | -0.98 | -0.48 | 0.94 |
| Years of Education | 1.63 | 1.87 | 0.25 | 1.71 | 1.95 | 0.35 | 1.41 | 1.65 | 0.54 |
| Take Home Monthly Pay | 141.98 | 119.39 | 0.27 | 135.28 | 118.79 | 0.44 | 162.49 | 120.94 | 0.42 |
| Household Income 6m | 237.60 | 254.10 | 0.68 | 228.13 | 271.19 | 0.39 | 261.76 | 207.08 | 0.40 |
| % Income Saved Last Month | 0.09 | 0.07 | 0.30 | 0.08 | 0.04 | 0.13 | 0.12 | 0.14 | 0.80 |
| Ease Paying Surprise Bill [0-3] | 1.45 | 1.46 | 0.96 | 1.51 | 1.45 | 0.59 | 1.31 | 1.47 | 0.32 |
| Any Work {0,1} | 0.57 | 0.59 | 0.76 | 0.56 | 0.59 | 0.73 | 0.60 | 0.60 | 1.00 |
| Stable Employment {0,1} | 0.37 | 0.35 | 0.74 | 0.38 | 0.36 | 0.74 | 0.34 | 0.33 | 0.94 |
| Financial Security Index | 0.04 | -0.01 | 0.68 | 0.04 | -0.05 | 0.52 | 0.03 | 0.09 | 0.82 |
| General Trust | 3.04 | 2.89 | 0.07 | 3.03 | 2.87 | 0.09 | 3.06 | 2.96 | 0.49 |
| Share Government Financial Support [1-5] | 0.01 | -0.13 | 0.21 | 0.12 | -0.14 | 0.05 | -0.28 | -0.13 | 0.51 |
| Share Jobs [1-5] | -0.02 | -0.10 | 0.48 | 0.04 | -0.05 | 0.47 | -0.17 | -0.23 | 0.81 |
| Prop. of Out-Group Friends [0-1] | 0.16 | 0.12 | 0.04 | 0.16 | 0.12 | 0.14 | 0.15 | 0.10 | 0.13 |
| Social Cohesion Index | 0.08 | -0.19 | 0.01 | 0.15 | -0.17 | 0.01 | -0.11 | -0.25 | 0.50 |
| *Observations* | 174 | 150 | | 125 | 110 | | 49 | 40 | |

*Notes:* The table shows baseline differences between hosts who live close to Nampula (within the median distance of 15.48km, N=1) and hosts who live far from Nampula (beyond 15.48km, N=0) on basic demographic variables as well as key outcome variables of interest. Housing Index is the first component of 6 proxies for housing quality (number of rooms, house has electricity, has a toilet that flushes, quality of materials used to construct the roof, quality of materials used to construct the floor, and quality of materials used to construct the walls). Ease Paying Surprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 MTN, ranging from not at all (0) to very easily (3). Any Work captures whether the respondent has engaged in any type of casual work in the previous week. Salaried Employment captures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. General Trust is an index of 3 proxies for trust (comfort in leaving a set of keys with neighbors [1-4], comfort in having a neighbor watch over kids [1-4], comfort in giving your neighbor money to pick up groceries [1-4]). Share Jobs and Share Government Financial Support measure willingness to share jobs (1-5) and financial support (1-5), respectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the respondent reports belonging to the opposite group (refugees for hosts, hosts for refugees). Social Cohesion Index is an index of 4 proxies for social cohesion (generalized trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group.

# C Robustness

Table C.1: Correlation Between Financial Security and Social Cohesion, Baseline. **Not Controlling for Covariates**

| | Trust (stand) | Outgroup Intercts. (stand) | Prop Out-Group Friends (stand) | Share Fin. Support (stand) | Share Jobs (stand) | Social Cohesion Index (stand) |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: Full Sample | | | | | |
| Financial Security Index | 0.25*** | 0.20*** | 0.07 | -0.13** | -0.16*** | 0.02 |
| | [0.04] | [0.04] | [0.05] | [0.05] | [0.05] | [0.05] |
| Distance to Out-Group | 0.14*** | -0.16*** | -0.06 | -0.07 | -0.14*** | -0.05 |
| | [0.04] | [0.05] | [0.05] | [0.04] | [0.04] | [0.05] |
| Mean Dependent | -0.01 | 0.14 | 0.07 | 0.02 | 0.02 | 0.04 |
| Observations | 467 | 467 | 467 | 467 | 467 | 467 |
| Adj. R-squared | 0.07 | 0.07 | 0.00 | 0.01 | 0.03 | -0.00 |
| | Panel B: Only Refugees | | | | | |
| Financial Security Index | 0.26*** | 0.29*** | -0.04 | -0.12 | -0.19** | -0.04 |
| | [0.09] | [0.08] | [0.08] | [0.08] | [0.09] | [0.08] |
| Distance to Out-Group | 0.05 | -0.11 | -0.25*** | -0.08 | -0.03 | -0.13** |
| | [0.09] | [0.07] | [0.08] | [0.06] | [0.06] | [0.06] |
| Mean Dependent | -0.08 | 0.29 | 0.47 | 0.57 | 0.58 | 0.67 |
| Observations | 143 | 143 | 143 | 143 | 143 | 143 |
| Adj. R-squared | 0.05 | 0.10 | 0.04 | 0.02 | 0.05 | 0.01 |
| | Panel C: Only Hosts | | | | | |
| Financial Security Index | 0.26*** | 0.15*** | 0.12** | -0.14*** | -0.15*** | 0.04 |
| | [0.05] | [0.06] | [0.05] | [0.05] | [0.05] | [0.05] |
| Distance to Out-Group | 0.15*** | -0.17*** | 0.07 | 0.10* | 0.00 | 0.14** |
| | [0.05] | [0.06] | [0.06] | [0.06] | [0.05] | [0.06] |
| Mean Dependent | 0.03 | 0.07 | -0.12 | -0.22 | -0.22 | -0.23 |
| Observations | 324 | 324 | 324 | 324 | 324 | 324 |
| Adj. R-squared | 0.08 | 0.04 | 0.02 | 0.03 | 0.02 | 0.01 |
| Controls | N | N | N | N | N | N |

*Notes:* The table shows OLS estimates of various measures of Social Cohesion variables on Financial Security. General Trust is an index of 3 proxies for baseline trust (comfort in leaving a set of keys with neighbours [1-4], comfort in having neighbour watch over kids [1-4], comfort in giving your neighbour money to pick up groceries [1-4]), constructed by first equally weighting the average z-scores of each indicator, and then by standardising these again with reference to the control group. Column 2 measures the number of times the respondent interacted with a member of the opposite group in the past 7 days. Column 3 measures the proportion of the respondent's friends who are from their out-group. Columns 4-5 measure the extent to which the respondent feels that Mozambicans should not get priority access to jobs or to government financial support (1-5), repectively. Social Cohesion Index (column 6) is an index of 4 proxies for social cohesion (general trust, proportion of out-group friends, willingness to share financial support and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6-month household income, whether the respondent has worked for at least one hour during the past week and whether the respondent has a stable form of employment), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Distance to Out-Group measures how far (kms) the respondent lives from the closest out-group member. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.2: Financial Security and Social Cohesion, 2SLS. **Refugees Only**

| | Trust In-Group (stand) | Trust Out-Group (stand) | Prop Out-Group Friends (stand) | Share Fin. Support (stand) | Share Jobs (stand) | Social Cohesion Index (stand) |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: OLS | | | | | |
| Financial Security Index | 0.04 | 0.07 | 0.14*** | -0.03 | -0.03 | 0.07 |
| | [0.04] | [0.05] | [0.04] | [0.05] | [0.05] | [0.05] |
| Control Mean (BL) | 2.95 | 2.95 | 0.23 | 3.45 | 3.43 | -0.02 |
| Pctile of Control Group | 52% | 53% | 56% | 49% | 49% | 53% |
| Nbr Participants-Waves | 502 | 502 | 503 | 389 | 391 | 503 |
| Adj. R-squared | 0.05 | 0.11 | 0.19 | -0.08 | -0.02 | 0.14 |
| | Panel B: Reduced Form | | | | | |
| Treatment X Post | 0.25 | 0.47** | 0.08 | 0.38* | 0.14 | 0.47** |
| | [0.21] | [0.20] | [0.20] | [0.22] | [0.21] | [0.21] |
| Control Mean (BL) | 2.95 | 2.95 | 0.23 | 3.45 | 3.43 | -0.02 |
| Pctile of Control Group | 60% | 68% | 53% | 65% | 56% | 68% |
| Nbr Participants-Waves | 502 | 502 | 503 | 389 | 391 | 503 |
| Adj. R-squared | 0.05 | 0.12 | 0.17 | -0.07 | -0.02 | 0.15 |
| | Panel C: 2SLS [Instrument = Treatment x Post] | | | | | |
| Financial $\widehat{\text{Security}}$ Index | 0.18 | 0.34** | 0.06 | 0.28 | 0.11 | 0.34** |
| | [0.15] | [0.14] | [0.14] | [0.18] | [0.16] | [0.17] |
| Control Mean (BL) | 2.95 | 2.95 | 0.23 | 3.45 | 3.43 | -0.02 |
| Pctile of Control Group | 57% | 63% | 52% | 61% | 54% | 63% |
| Nbr Participants-Waves | 502 | 502 | 503 | 389 | 391 | 503 |
| First Stage F (KPW) | 31.40 | 31.40 | 31.23 | 24.19 | 24.29 | 31.23 |
| Controls | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |

*Notes:* The table shows OLS [Panel A], Reduced Form [Panel B] and 2SLS [Panel C] estimates for the impact of financial security on social cohesion. Trust ingroup [1-10] asks the respondent how trusting they are of members of their ingroup (ie; refugees for a refugee respondent, hosts for a host respondent). Trust outgroup [1-10] asks the respondent how trusting they are of members of their outgroup (ie; hosts for a refugee respondent, refugees for a host respondent). Prop outgroup friends [0-1] asks the respondent what proportion of their friends belong to the outgroup. Share Fin. Support and Share Jobs measure the willingness to share financial support (1-5) and to share jobs (1-5), respectively. Because Trust ingroup and Trust outgroup were unavailable at baseline, we impute these values using baseline General Trust. Social Cohesion Index is an index which measures 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the respective control group. All models include respondent and survey fixed effects, and additionally control for household size and an indicator for having been surveyed in the delayed July 2022 batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, so treatment effects are measured in standard deviations of the respective control group. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively

Table C.3: Financial Security and Social Cohesion, 2SLS. **Hosts Only**

| | Trust In-Group (stand) | Trust Out-Group (stand) | Prop Out-Group Friends (stand) | Share Fin. Support (stand) | Share Jobs (stand) | Social Cohesion Index (stand) |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: OLS | | | | | |
| Financial Security Index | 0.17*** | 0.18*** | 0.28*** | -0.00 | 0.02 | 0.22*** |
| | [0.03] | [0.04] | [0.03] | [0.04] | [0.03] | [0.03] |
| Control Mean (BL) | 2.94 | 2.94 | 0.14 | 2.55 | 2.51 | -0.01 |
| Pctile of Control Group | 57% | 57% | 61% | 50% | 51% | 59% |
| Nbr Participants-Waves | 984 | 981 | 1,230 | 936 | 935 | 1,230 |
| Adj. R-squared | 0.10 | 0.14 | 0.17 | 0.02 | 0.07 | 0.16 |
| | Panel B: Reduced Form | | | | | |
| Treatment X Post | 0.17 | 0.12 | 0.27** | 0.43*** | 0.40** | 0.56*** |
| | [0.15] | [0.16] | [0.13] | [0.16] | [0.16] | [0.12] |
| Control Mean (BL) | 2.94 | 2.94 | 0.14 | 2.55 | 2.51 | -0.01 |
| Pctile of Control Group | 57% | 55% | 61% | 67% | 66% | 71% |
| Nbr Participants-Waves | 984 | 981 | 1,230 | 936 | 935 | 1,230 |
| Adj. R-squared | 0.06 | 0.11 | 0.08 | 0.03 | 0.08 | 0.11 |
| | Panel C: 2SLS [Instrument = Treatment x Post] | | | | | |
| Financial $\widehat{\text{Security}}$ Index | 0.09 | 0.06 | 0.17** | 0.31** | 0.29** | 0.35*** |
| | [0.08] | [0.08] | [0.08] | [0.12] | [0.12] | [0.08] |
| Control Mean (BL) | 2.94 | 2.94 | 0.14 | 2.55 | 2.51 | -0.01 |
| Pctile of Control Group | 54% | 52% | 57% | 62% | 61% | 64% |
| Nbr Participants-Waves | 984 | 981 | 1,230 | 936 | 935 | 1,230 |
| First Stage F (KPW) | 106.58 | 106.39 | 94.27 | 66.24 | 66.25 | 94.27 |
| Controls | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |

*Notes:* The table shows OLS [Panel A], Reduced Form [Panel B] and 2SLS [Panel C] estimates for the impact of financial security on social cohesion. Trust ingroup [1-10] asks the respondent how trusting they are of members of their ingroup (ie; refugees for a refugee respondent, hosts for a host respondent). Trust outgroup [1-10] asks the respondent how trusting they are of members of their outgroup (ie; hosts for a refugee respondent, refugees for a host respondent). Prop outgroup friends [0-1] asks the respondent what proportion of their friends belong to the outgroup. Share Fin. Support and Share Jobs measure the willingness to share financial support (1-5) and to share jobs (1-5), respectively. Because Trust ingroup and Trust outgroup were unavailable at baseline, we impute these values using baseline General Trust. Social Cohesion Index is an index which measures 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the respective control group. All models include respondent and survey fixed effects, and additionally control for household size and an indicator for having been surveyed in the delayed July 2022 batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, so treatment effects are measured in standard deviations of the respective control group. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively

Table C.4: Financial Security and Social Cohesion. **Diff-Diff Estimates**

| | Financial Security Index (1) | Financial Security Index (2) | Social Cohesion Index (3) | Social Cohesion Index (4) |
|---|---|---|---|---|
| | Panel A: Full Sample | | | |
| Treatment x Midline1 | 1.17*** | 1.18*** | 0.36*** | 0.37*** |
| | [0.16] | [0.16] | [0.11] | [0.12] |
| Treatment x Midline2 | 1.77*** | 1.79*** | 0.91*** | 0.92*** |
| | [0.17] | [0.17] | [0.15] | [0.15] |
| Treatment x Endline | 1.56*** | 1.64*** | 0.37*** | 0.40*** |
| | [0.18] | [0.18] | [0.14] | [0.14] |
| Nbr Participants-Waves | 1,733 | 1,733 | 1,733 | 1,733 |
| Adj. R-squared | 0.34 | 0.35 | 0.13 | 0.13 |
| | Panel B: Refugees Only | | | |
| Treatment x Midline1 | 1.36*** | 1.35*** | 0.16 | 0.14 |
| | [0.30] | [0.31] | [0.22] | [0.22] |
| Treatment x Midline2 | 1.47*** | 1.47*** | 1.19*** | 1.18*** |
| | [0.26] | [0.27] | [0.29] | [0.29] |
| Treatment x Endline | 1.34*** | 1.33*** | 0.23 | 0.22 |
| | [0.31] | [0.31] | [0.28] | [0.29] |
| Nbr Participants-Waves | 499 | 499 | 499 | 499 |
| Adj. R-squared | 0.33 | 0.35 | 0.18 | 0.18 |
| | Panel C: Hosts Only | | | |
| Treatment x Midline1 | 1.04*** | 1.04*** | 0.53*** | 0.54*** |
| | [0.18] | [0.18] | [0.13] | [0.13] |
| Treatment x Midline2 | 2.05*** | 2.04*** | 0.68*** | 0.69*** |
| | [0.23] | [0.23] | [0.17] | [0.17] |
| Treatment x Endline | 1.78*** | 1.78*** | 0.48*** | 0.50*** |
| | [0.21] | [0.21] | [0.16] | [0.16] |
| Nbr Participants-Waves | 1,234 | 1,234 | 1,234 | 1,234 |
| Adj. R-squared | 0.34 | 0.34 | 0.11 | 0.11 |
| Controls | N | Y | N | Y |

*Notes:* The table shows difference in difference estimates for Financial Security and Social Cohesion. Social Cohesion Index is an index of 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Financial Security Index is an index of 6 proxies for financial security ease of paying a surprise bill, % of income saved last month, take home monthly pay, average monthly household income (over the past 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent has a stable form of employment). All Indexes are constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group, within each survey and host/refugee subgroup. All models include respondent and survey fixed effects. Models in columns (2) and (4) additionally control for age, age interacted with gender, household size, and an indicator for July 2022 batch. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.5: Comparison Between High Baseline and High Endline Financial Security on Social Cohesion

| | Social Cohesion Index at Endline | Social Cohesion Index at Endline |
|---|---|---|
| | (1) | (2) |
| High Income at Baseline [0,1] | -0.77*** | -1.21*** |
| | [0.28] | [0.32] |
| Avg Income (High Baseline Income) | 491.51 | - |
| Avg Income (High Endline Income) | 348.86 | - |
| Avg Percentile (High Baseline Percentile) | - | 76.36 |
| Avg Percentile (High Endline Percentile) | - | 77.39 |
| Observations | 315 | 278 |

*Notes:* The table reports nearest neighbor matching estimators on differences in Social Cohesion. High Income Baseline = 1 is the group of respondents above the 50th percentile of income at baseline (income > 160 MTN), and High Income Baseline = 0 represents the group of individuals who achieved similarly high income at endline, due to the livelihoods intervention (income > 160 MTN). Baseline participants with high income are matched to an endline participant with comparably high income via nearest-neighbor matching, with exact matching on refugee status and gender. Column 1 matches participants on absolute income, and column 2 matches participants on income percentile within each survey. Average income for the high baseline income group and the high endline income group are not statistically different ($p = 0.021$ for absolute income). Social Cohesion Index is an index of 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. All models control for age, gender, age squared, years of education, household size, first component variable of housing amenities, age interacted with gender, distance to the center of Maratane camp, whether the respondent speaks portuguese , years since arrival in Mozambique (for refugees), and an indicator for having been surveyed in the delayed July 2022 batch. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.6: Impact of Livelihoods Program on Financial Security. **Not Controlling for Covariates**

| | HH Income (6m) (stand) | Take Home Pay (1m) (stand) | Pct Inc. Saved [0-1] (stand) | Pay Surprise Bill [0-3] (stand) | Any Work (stand) | Salaried Employment (stand) | Financial Security Index (stand) |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | Panel A: Full Sample | | | | | | |
| Treatment X Post | 0.81*** | 0.77*** | 1.84*** | 1.28*** | 0.13 | 0.38*** | 1.48*** |
| | [0.15] | [0.19] | [0.18] | [0.12] | [0.14] | [0.14] | [0.14] |
| Pctile of Control Group | 79% | 78% | 97% | 90% | 55% | 65% | 93% |
| Nbr Participants-Waves | 1,733 | 1,173 | 1,733 | 1,701 | 1,210 | 1,210 | 1,733 |
| Adj. R-squared | 0.06 | 0.10 | 0.45 | 0.21 | 0.04 | 0.13 | 0.34 |
| | Panel B: Only Refugees | | | | | | |
| Treatment X Post | 0.74*** | 1.60*** | 1.49*** | 1.25*** | 0.24 | 0.35 | 1.38*** |
| | [0.26] | [0.34] | [0.34] | [0.22] | [0.24] | [0.23] | [0.24] |
| Pctile of Control Group | 77% | 95% | 93% | 89% | 60% | 64% | 92% |
| Nbr Participants-Waves | 499 | 266 | 499 | 483 | 330 | 330 | 499 |
| Adj. R-squared | 0.05 | 0.23 | 0.35 | 0.24 | 0.16 | 0.19 | 0.33 |
| | Panel C: Only Hosts | | | | | | |
| Treatment X Post | 0.90*** | 0.45** | 2.12*** | 1.30*** | 0.08 | 0.43** | 1.60*** |
| | [0.19] | [0.22] | [0.17] | [0.15] | [0.18] | [0.18] | [0.16] |
| Pctile of Control Group | 82% | 67% | 98% | 90% | 53% | 67% | 95% |
| Nbr Participants-Waves | 1,234 | 907 | 1,234 | 1,218 | 880 | 880 | 1,234 |
| Adj. R-squared | 0.08 | 0.07 | 0.49 | 0.19 | -0.01 | 0.10 | 0.32 |
| Controls | N | N | N | N | N | N | N |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y | Y |

*Notes:* The table measures the 3 period average treatment effect on financial security outcomes. HH Income (6m) measured the total household income in the past 6 months, as measured but the sum of all income sources. Take Home pay (1m) is the respondent's reported take home monthly pay in the past month. Pct Income Saved is the % of income saved in the past month. Pay Suprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 mtc, ranging for not at all (0) to very easily (3). Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved in the previous month, take home monthly pay, and 6-month household income, whether the respondent has worked for at least one hour during the past week, whether the respondent has a stable form of employment), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. No model includes controls for covariates. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, and so treatment effects are measured in standard deviations of the control group. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.7: Financial Security and Social Cohesion, 2SLS. Not Controlling for Covariates.
**Full Sample**

| | Trust In-Group (stand) (1) | Trust Out-Group (stand) (2) | Prop Out-Group Friends (stand) (3) | Share Fin. Support (stand) (4) | Share Jobs (stand) (5) | Social Cohesion Index (stand) (6) |
|---|---|---|---|---|---|---|
| | Panel A: OLS | | | | | |
| Financial Security Index | 0.12*** | 0.12*** | 0.23*** | -0.01 | -0.01 | 0.17*** |
| | [0.03] | [0.03] | [0.02] | [0.03] | [0.03] | [0.02] |
| Pctile of Control Group | 55% | 55% | 59% | 50% | 50% | 57% |
| Nbr Participants-Waves | 1,486 | 1,483 | 1,733 | 1,325 | 1,326 | 1,733 |
| Adj. R-squared | 0.08 | 0.11 | 0.16 | -0.01 | 0.04 | 0.14 |
| | Panel B: Reduced Form | | | | | |
| Treatment X Post | 0.22* | 0.36*** | 0.20* | 0.40*** | 0.27** | 0.54*** |
| | [0.12] | [0.12] | [0.10] | [0.12] | [0.12] | [0.11] |
| Pctile of Control Group | 59% | 64% | 58% | 66% | 61% | 71% |
| Nbr Participants-Waves | 1,486 | 1,483 | 1,733 | 1,325 | 1,326 | 1,733 |
| Adj. R-squared | 0.06 | 0.09 | 0.10 | 0.00 | 0.05 | 0.12 |
| | Panel C: 2SLS [Instrument = Treatment x Post] | | | | | |
| Financial $\widehat{\text{Security}}$ Index | 0.14* | 0.23*** | 0.13* | 0.29*** | 0.20** | 0.36*** |
| | [0.08] | [0.07] | [0.07] | [0.10] | [0.09] | [0.08] |
| Pctile of Control Group | 56% | 59% | 55% | 61% | 58% | 64% |
| Nbr Participants-Waves | 1,486 | 1,483 | 1,733 | 1,325 | 1,326 | 1,733 |
| First Stage F (KPW) | 122.18 | 126.62 | 108.71 | 88.62 | 84.15 | 108.71 |
| Controls | N | N | N | N | N | N |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |

*Notes:* The table shows OLS [Panel A], Reduced Form [Panel B] and 2SLS [Panel C] estimates for the impact of financial security on social cohesion. Trust ingroup [1-10] asks the respondent how trusting they are of members of their ingroup (ie; refugees for a refugee respondent, hosts for a host respondent). Trust outgroup [1-10] asks the respondent how trusting they are of members of their outgroup (ie; hosts for a refugee respondent, refugees for a host respondent). Prop outgroup friends [0-1] asks the respondent what proportion of their friends belong to the outgroup. share Fin. Support and Share Jobs measure the extent to which the respondent feels that Mozambicans should not be prioritized in accessing government financial support and in accessing jobs when they are scarce (both, on a scale of 1-5). Because Trust ingroup and Trust outgroup were unavailable at baseline, we impute these values using baseline General Trust. Social Cohesion Index is an index of 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. No model includes controls for covariates. All dependent variables are standardized to the control group's distribution, and so treatment effects are measured in standard deviations of the control group. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.8: Impact of Livelihoods Program on Financial Security, **Robustness**

| | *Dependent Variable: Financial Security Index* | | | | | | |
|---|---|---|---|---|---|---|---|
| Dropped Variable: | - | HH Income (6m) | Take Home Monthly Pay | Pct. Income Saved | Pay Suprise Bill | Any Work | Salaried Employ-ment |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | Panel A: Full Sample | | | | | | |
| Treatment X Post | 1.51*** | 1.53*** | 1.54*** | 1.11*** | 1.31*** | 1.67*** | 1.63*** |
| | [0.13] | [0.15] | [0.13] | [0.12] | [0.15] | [0.14] | [0.14] |
| Pctile of Control Group | 93% | 94% | 94% | 87% | 90% | 95% | 95% |
| Nbr Participants-Waves | 1,733 | 1,733 | 1,733 | 1,733 | 1,733 | 1,733 | 1,733 |
| Adj. R-squared | 0.34 | 0.37 | 0.35 | 0.20 | 0.28 | 0.37 | 0.36 |
| | Panel B: Only Refugees | | | | | | |
| Treatment X Post | 1.38*** | 1.46*** | 1.32*** | 1.16*** | 1.17*** | 1.47*** | 1.45*** |
| | [0.25] | [0.27] | [0.25] | [0.21] | [0.28] | [0.26] | [0.26] |
| Pctile of Control Group | 92% | 93% | 91% | 88% | 88% | 93% | 93% |
| Nbr Participants-Waves | 499 | 499 | 499 | 499 | 499 | 499 | 499 |
| Adj. R-squared | 0.35 | 0.36 | 0.36 | 0.20 | 0.26 | 0.37 | 0.37 |
| | Panel C: Only Hosts | | | | | | |
| Treatment X Post | 1.60*** | 1.58*** | 1.67*** | 1.06*** | 1.41*** | 1.79*** | 1.73*** |
| | [0.16] | [0.17] | [0.16] | [0.16] | [0.16] | [0.17] | [0.17] |
| Pctile of Control Group | 95% | 94% | 95% | 86% | 92% | 96% | 96% |
| Nbr Participants-Waves | 1,234 | 1,234 | 1,234 | 1,234 | 1,234 | 1,234 | 1,234 |
| Adj. R-squared | 0.32 | 0.34 | 0.33 | 0.18 | 0.27 | 0.35 | 0.33 |
| Controls | Y | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y | Y |

*Notes:* The table measures treatment effects on the Financial Security Index, constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Column 1 shows the full index, which icludes 6 proxies for financial security (6-month household income, take home monthly pay, % of income saved last month, ease of paying a surprise bill, whether the respondent has worked for at least one hour during the past week and whether the respondent has a stable form of employment). Columns 2-5 show estimates where the indicated proxy is dropped from the index. All models additionally control for household size and an indicator for being surveyed in the delayed July 2022 batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, and so treatment effects are measured in standard deviations of the control group. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.9: Financial Security and Social Cohesion. OLS Estimates, **Robustness**

| | *Dependent Variable: Social Cohesion Index* | | | | | |
|---|---|---|---|---|---|---|
| Dropped Variable: | - | Trust In-Group | Trust Out-Group | Share Fin. Support | Share Jobs | Prop. Out-Group Friends |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: Full Sample | | | | | |
| Financial Security Index | 0.15*** | 0.14*** | 0.15*** | 0.18*** | 0.17*** | 0.08*** |
| | [0.02] | [0.02] | [0.02] | [0.02] | [0.02] | [0.02] |
| Pctile of Control Group | 56% | 56% | 56% | 57% | 57% | 53% |
| Nbr Participants-Waves | 1,733 | 1,733 | 1,733 | 1,733 | 1,733 | 1,733 |
| Adj. R-squared | 0.13 | 0.12 | 0.10 | 0.15 | 0.16 | 0.07 |
| | Panel B: Only Refugees | | | | | |
| Financial Security Index | 0.04 | 0.05 | 0.06 | 0.03 | 0.04 | -0.01 |
| | [0.04] | [0.04] | [0.04] | [0.04] | [0.04] | [0.04] |
| Pctile of Control Group | 52% | 52% | 52% | 51% | 52% | 50% |
| Nbr Participants-Waves | 499 | 499 | 499 | 499 | 499 | 499 |
| Adj. R-squared | 0.13 | 0.11 | 0.09 | 0.17 | 0.18 | 0.04 |
| | Panel C: Only Hosts | | | | | |
| Financial Security Index | 0.21*** | 0.17*** | 0.20*** | 0.25*** | 0.24*** | 0.13*** |
| | [0.03] | [0.03] | [0.03] | [0.03] | [0.03] | [0.03] |
| Pctile of Control Group | 58% | 57% | 58% | 60% | 59% | 55% |
| Nbr Participants-Waves | 1,234 | 1,234 | 1,234 | 1,234 | 1,234 | 1,234 |
| Adj. R-squared | 0.15 | 0.14 | 0.11 | 0.18 | 0.18 | 0.09 |
| Controls | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |

*Notes:* The table shows OLS estimates for the effect of Financial Security on Social Cohesion, dropping one subcomponent of the Social Cohesion index at a time. Social Cohesion is constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Column 1 shows the full index, which includes 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs). Columns 2-6 show estimates where the indicated proxy is dropped from the index. All models additionally control for household size and an indicator for July 2022 batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, and so effect sizes are measured in standard deviations of the control group. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.10: Financial Security and Social Cohesion. Reduced Form Estimates, **Robustness**

| | *Dependent Variable: Social Cohesion Index* | | | | | |
|---|---|---|---|---|---|---|
| Dropped Variable: | - | Trust In-Group | Trust Out-Group | Share Fin. Support | Share Jobs | Prop. Out-Group Friends |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: Full Sample | | | | | |
| Treatment X Post | 0.55*** | 0.54*** | 0.53*** | 0.47*** | 0.52*** | 0.52*** |
| | [0.11] | [0.11] | [0.11] | [0.11] | [0.10] | [0.11] |
| Pctile of Control Group | 71% | 71% | 70% | 68% | 70% | 70% |
| Nbr Participants-Waves | 1,733 | 1,733 | 1,733 | 1,733 | 1,733 | 1,733 |
| Adj. R-squared | 0.12 | 0.11 | 0.08 | 0.13 | 0.14 | 0.08 |
| | Panel B: Only Refugees | | | | | |
| Treatment X Post | 0.39* | 0.41* | 0.39* | 0.23 | 0.33 | 0.42** |
| | [0.21] | [0.22] | [0.22] | [0.21] | [0.20] | [0.21] |
| Pctile of Control Group | 65% | 66% | 65% | 59% | 63% | 66% |
| Nbr Participants-Waves | 499 | 499 | 499 | 499 | 499 | 499 |
| Adj. R-squared | 0.13 | 0.12 | 0.09 | 0.18 | 0.18 | 0.05 |
| | Panel C: Only Hosts | | | | | |
| Treatment X Post | 0.62*** | 0.59*** | 0.57*** | 0.60*** | 0.61*** | 0.58*** |
| | [0.13] | [0.13] | [0.14] | [0.14] | [0.13] | [0.13] |
| Pctile of Control Group | 73% | 72% | 72% | 73% | 73% | 72% |
| Nbr Participants-Waves | 1,234 | 1,234 | 1,234 | 1,234 | 1,234 | 1,234 |
| Adj. R-squared | 0.11 | 0.12 | 0.08 | 0.12 | 0.13 | 0.09 |
| Controls | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |

*Notes:* The table shows Reduced Form estimates for the effect of Financial Security on Social Cohesion, dropping one subcomponent of the Social Cohesion index at a time. Social Cohesion is constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Column 1 shows the full index, which includes 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs). Columns 2-6 show estimates where the indicated proxy is dropped from the index. All models additionally control for household size and an indicator for July 2022 batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, and so effect sizes are measured in standard deviations of the control group. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.11: Financial Security and Social Cohesion. 2SLS Estimates, **Robustness**

| | *Dependent Variable: Social Cohesion Index* | | | | | |
|---|---|---|---|---|---|---|
| Dropped Variable: | - | Trust In-Group | Trust Out-Group | Share Fin. Support | Share Jobs | Prop. Out-Group Friends |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: Full Sample | | | | | |
| $\widehat{FinancialSecurityIndex}$ | 0.36*** | 0.35*** | 0.34*** | 0.31*** | 0.34*** | 0.34*** |
| | [0.08] | [0.08] | [0.08] | [0.08] | [0.07] | [0.08] |
| Pctile of Control Group | 64% | 64% | 63% | 62% | 63% | 63% |
| Nbr Participants-Waves | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 |
| Adj. R-squared | 0.01 | 0.00 | 0.01 | 0.05 | 0.05 | -0.05 |
| | Panel B: Only Refugees | | | | | |
| $\widehat{FinancialSecurityIndex}$ | 0.36** | 0.36** | 0.36** | 0.24 | 0.31* | 0.35** |
| | [0.18] | [0.18] | [0.18] | [0.16] | [0.16] | [0.17] |
| Pctile of Control Group | 64% | 64% | 64% | 59% | 62% | 64% |
| Nbr Participants-Waves | 509 | 509 | 509 | 509 | 509 | 509 |
| Adj. R-squared | -0.03 | -0.01 | -0.02 | 0.02 | 0.02 | -0.13 |
| | Panel C: Only Hosts | | | | | |
| $\widehat{FinancialSecurityIndex}$ | 0.36*** | 0.33*** | 0.32*** | 0.34*** | 0.35*** | 0.34*** |
| | [0.08] | [0.08] | [0.09] | [0.09] | [0.08] | [0.09] |
| Pctile of Control Group | 64% | 63% | 63% | 63% | 64% | 63% |
| Nbr Participants-Waves | 1,241 | 1,241 | 1,241 | 1,241 | 1,241 | 1,241 |
| Adj. R-squared | 0.03 | 0.00 | 0.02 | 0.07 | 0.06 | -0.03 |
| Controls | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |

*Notes:* The table shows 2SLS estimates for the effect of Financial Security on Social Cohesion, dropping one subcomponent of the Social Cohesion index at a time. Social Cohesion is constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Column 1 shows the full index, which includes 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs). Columns 2-6 show estimates where the indicated proxy is dropped from the index. All models additionally control for household size and an indicator for July 2022 batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, and so effect sizes are measured in standard deviations of the control group. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.12: Impact of Livelihoods Program on Financial Security and Social Cohesion. **Index Variables, 2SLS**.

| | *Full Sample* | | *Refugees Only* | | *Hosts Only* | |
|---|---|---|---|---|---|---|
| | FS PCA (stand) | SC PCA (stand) | FS PCA (stand) | SC PCA (stand) | FS PCA (stand) | SC PCA (stand) |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: OLS | | | | | |
| Financial Security PCA | - | 0.02 | - | 0.02 | - | 0.02 |
| | - | [0.03] | - | [0.05] | - | [0.03] |
| Pctile of Control Group | .% | 51% | 84% | 51% | 84% | 51% |
| Nbr Participants-Waves | 1,241 | 1,733 | 499 | 499 | 1,234 | 1,234 |
| Adj. R-squared | -0.03 | -0.00 | 1.00 | 0.00 | 1.00 | -0.00 |
| | Panel B: Reduced Form | | | | | |
| Treatment X Post | 1.56*** | 0.57*** | 1.58*** | 0.38 | 1.54*** | 0.68*** |
| | [0.13] | [0.16] | [0.22] | [0.29] | [0.18] | [0.20] |
| Pctile of Control Group | 94% | 72% | 94% | 65% | 94% | 75% |
| Nbr Participants-Waves | 1,733 | 1,733 | 499 | 499 | 1,234 | 1,234 |
| Adj. R-squared | 0.09 | 0.01 | 0.12 | 0.01 | 0.07 | 0.01 |
| | Panel C: 2SLS [Instrument = Treatment x Post] | | | | | |
| $\widehat{FinancialSecurityPCA}$ | - | 0.36*** | - | 0.24 | - | 0.44*** |
| | - | [0.11] | - | [0.19] | - | [0.14] |
| Pctile of Control Group | 84% | 64% | 84% | 59% | 59% | 67% |
| Nbr Participants-Waves | 1,733 | 1,733 | 499 | 499 | 499 | 1,234 |
| First Stage F (KPW) | 135.90 | 135.90 | 49.42 | 49.42 | 49.42 | 72.32 |
| Controls | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |

*Notes:* The table measures the 3 period average treatment effect on financial security and social cohesion. Panel A shows OLS estimates, Panel B shows reduced form estimates for the effect of treatment on financial security and social cohesion, and Panel C shows IV estimates where we instrument financial security with treatment. Financial Security PCA (in columns 1, 3, and 5) is the first component of a PCA variable which measures 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and 6-month household income). Social Cohesion PCA (in columns 2, 4, 6) is the first component of a PCA variable which measures 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs). All models additionally control for household size and an indicator for July 2022 batch. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.13: Randomized Inference For Treatment Effects

| | TE ($\widehat{\beta}*$) | $\#\|\widehat{\beta}\| >= \|\widehat{\beta}*\|$ (c) | Permutations (n) | p-val (p = c/n) | p-val ci-lower | p-val ci-upper |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| **Financial Security** | | | | | | |
| HH Income (6m) | 0.847 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| Take Home Pay (1m) | 0.607 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| Pct Inc. Saved [0-1] | 1.891 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| Pay Surprise Bill [0-3] | 1.243 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| Any Work | 0.112 | 84 | 1000 | 0.084 | 0.068 | 0.103 |
| Salaried Employment | 0.368 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| Financial Security Index | 1.474 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| **Social Cohesion** | | | | | | |
| Trust In-Group [1-10] | 0.216 | 3 | 1000 | 0.003 | 0.001 | 0.009 |
| Trust Out-Group [1-10] | 0.372 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| Prop Out-Group Friends [0-1] | 0.211 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| Share Gov. Fin. Support [1-5] | 0.392 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| Share Jobs [1-5] | 0.270 | 0 | 1000 | 0.000 | 0.000 | 0.004 |
| Social Cohesion Index | 0.730 | 0 | 1000 | 0.000 | 0.000 | 0.004 |

*Notes:* The table presents randomized inference tests for treatment on financial security and social cohesion, where treatment is randomly permuted 1000 times. $\widehat{B*}$ is the original treatment effect. $\#|\widehat{\beta}| >= |\widehat{\beta}*|$ (c) represents the number of times (out of 1000) that the permuted treatment effect was larger than the treatment effect found in our sample. P-value represents the number of times the permuted treatment effect exceeded our realized treatment effect (c) divided by the number of permutations (n). HH Income (6m) measured the total household income in the past 6 months, as measured but the sum of all income sources. Take Home pay (1m) is the respondent's reported take home monthly pay in the past month. Pct Income Saved is the % of income saved in the past month. Pay Suprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 mtc, ranging for not at all (0) to very easily (3). Any Work measures whether the respondent has worked for at least one hour during the past week. Salaried Employment measures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6 month household income, whether the respondent has worked for at least one hour during the past week, and whether the respondent has a stable form of employment), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Trust ingroup [1-10] asks the respondent how trusting they are of members of their ingroup (ie; refugees for a refugee respondent, hosts for a host respondent). Trust outgroup [1-10] asks the respondent how trusting they are of members of their outgroup (ie; hosts for a refugee respondent, refugees for a host respondent). Prop outgroup friends [0-1] as the respondent what proportion of their friends belong to the outgroup. Share Gov. Fin. Support [1-5] and Share Jobs [1-5] measure willingness to share financial support and jobs, respectively, with members of the out-group. Social Cohesion Index is an index of 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. All models additionally control for household size, community treatment intensity (within 1km), and an indicator for July 2022 batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, and so treatment effects are measured in standard deviations of the control group.

Table C.14: Conley et al. (2012) Bounds for 2SLS Estimates.

| | Social Cohesion Index |
|---|---|
| $\widehat{FinancialSecurity}$ | 0.363 |
| | [0.077] |
| | UCI $[\gamma_{min}, \gamma_{max}]$ |
| UCI $[0, 0]$ | [0.21, 0.36] |
| UCI $[0, 0.05]$ | [0.18, 0.36] |
| UCI $[0, 0.1]$ | [0.15, 0.36] |
| UCI $[0, 0.15]$ | [0.12, 0.36] |
| UCI $[0, 0.2]$ | [0.09, 0.36] |
| Nbr Participants-Waves | 1,750 |
| First Stage F | 124.87 |
| Controls | Y |

*Notes:* This table reports sensitivity of the 2SLS estimates to potential violations of the exclusion restriction, following Conley et al. (2012)). The endogenous variable is the Financial Security Index, instrumented by Treatment × Post. The parameter $\gamma$ represents the direct effect of the instrument on the outcome (violation of exclusion restriction). When $\gamma = 0$, the exclusion restriction holds and we recover the standard 2SLS estimate. The Union of Confidence Intervals (UCI) method reports bounds on the treatment effect under different assumptions about the magnitude of $\gamma$. For example, $[\gamma_{min}, \gamma_{max}] = [0, 0.1]$ assumes the direct effect of Treatment × Post on social cohesion outcomes lies between 0 and 0.1 standard deviations. All specifications control for age, gender, age × gender, years of education, household size, first component variable for housing amenities, whether the respondent speaks portuguese, years in Mozambique (for refugees), distance to Maratane camp center, and an indicator for having been surveyed in the delayed July 2022 batch. Standard errors clustered at the respondent level. *, **, and *** indicate statistical significance at the 90%, 95%, and 99% confidence level, respectively.

Table C.15: Impact of the Livelihood Program on Financial Security. **Controlling for Community Treatment.**

| | Financial Security Index (stand) | Financial Security Index (stand) | Financial Security Index (stand) | Financial Security Index (stand) |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| | Panel A: Full Sample | | | |
| Treatment X Post | 1.47*** | 1.47*** | 1.47*** | 1.47*** |
| | [0.13] | [0.13] | [0.13] | [0.13] |
| Community Treatment | . | -0.13 | -0.17 | -0.21 |
| | . | [0.14] | [0.15] | [0.18] |
| Pctile of Control Group | 93% | 93% | 93% | 93% |
| Nbr Participants-Waves | 1,750 | 1,750 | 1,750 | 1,750 |
| Adj. R-squared | 0.29 | 0.29 | 0.29 | 0.29 |
| | Panel B: Only Refugees | | | |
| Treatment X Post | 1.33*** | 1.33*** | 1.33*** | 1.33*** |
| | [0.24] | [0.24] | [0.24] | [0.24] |
| Community Treatment | . | -0.40 | -0.48 | -0.57 |
| | . | [0.33] | [0.35] | [0.37] |
| Pctile of Control Group | 91% | 91% | 91% | 91% |
| Nbr Participants-Waves | 509 | 509 | 509 | 509 |
| Adj. R-squared | 0.27 | 0.27 | 0.27 | 0.27 |
| | Panel C: Only Hosts | | | |
| Treatment X Post | 1.60*** | 1.60*** | 1.60*** | 1.60*** |
| | [0.16] | [0.16] | [0.16] | [0.16] |
| Community Treatment | . | 0.02 | -0.00 | 0.02 |
| | . | [0.15] | [0.16] | [0.19] |
| Pctile of Control Group | 95% | 95% | 95% | 95% |
| Nbr Participants-Waves | 1,241 | 1,241 | 1,241 | 1,241 |
| Adj. R-squared | 0.29 | 0.29 | 0.29 | 0.29 |
| Controls | N | Y | Y | Y |
| Survey Fixed Effects | Y | Y | Y | Y |
| Community Radii (kms) | . | 0.75 | 1 | 2 |

The table measures the 3 period average treatment effect on financial security outcomes. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6 month household income, whether the respondent has worked for at least one hour during the past week, and whether the respondent has a stable form of employment), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group, within each survey and host/refugee subgroup. All models control for age, gender, age interacted with gender, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique, distance to the center of Maratane camp, an indicator for July 2022 batch and community treatment intensity at varying radii. All models include survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.16: Financial Security and Social Cohesion, 2SLS. Controlling for Community Treatment. **Full Sample**

| | Social Cohesion Index (stand) | Social Cohesion Index (stand) | Social Cohesion Index (stand) | Social Cohesion Index (stand) |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| | Panel A: OLS | | | |
| Financial Security Index | 0.19*** | 0.19*** | 0.19*** | 0.19*** |
| | [0.02] | [0.02] | [0.02] | [0.02] |
| Community Treatment | . | 0.15 | 0.11 | . |
| | . | [0.13] | [0.15] | . |
| Pctile of Control Group | 58% | 58% | 58% | 58% |
| Nbr Participants-Waves | 1,750 | 1,750 | 1,750 | 1,750 |
| Adj. R-squared | 0.07 | 0.08 | 0.08 | 0.08 |
| | Panel B: Reduced Form | | | |
| Treatment X Post | 0.53*** | 0.53*** | 0.53*** | 0.53*** |
| | [0.10] | [0.11] | [0.11] | [0.11] |
| Community Treatment | . | 0.08 | 0.03 | . |
| | . | [0.14] | [0.15] | . |
| Pctile of Control Group | 70% | 70% | 70% | 70% |
| Nbr Participants-Waves | 1,750 | 1,750 | 1,750 | 1,750 |
| Adj. R-squared | 0.04 | 0.05 | 0.05 | 0.05 |
| | Panel C: 2SLS [Instrument = Treatment x Post] | | | |
| Financial $\widehat{\text{Security}}$ Index | 0.36*** | 0.36*** | 0.36*** | 0.36*** |
| | [0.08] | [0.08] | [0.08] | [0.08] |
| Community Treatment | . | 0.15 | 0.11 | . |
| | . | [0.14] | [0.16] | . |
| Pctile of Control Group | 64% | 64% | 64% | 64% |
| Nbr Participants-Waves | 1,750 | 1,750 | 1,750 | 1,750 |
| First Stage F (KPW) | 121.49 | 124.87 | 124.89 | 124.87 |
| Controls | N | Y | Y | Y |
| Survey Fixed Effects | Y | Y | Y | Y |
| Radius (km) | . | 0.75 | 1 | 2 |

*Notes:* The table shows OLS [Panel A], Reduced Form [Panel B] and 2SLS [Panel C] estimates for the impact of financial security on social cohesion. Social Cohesion Index is an index of 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6-month household income, whether the respondent has worked for at least one hour during the past week, and whether the respondent has a stable form of employment). Both indices are constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the control group. Model in column (1) does not control for any covariates. All other models control for age, gender, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique (for refugees), distance to the center of Maratane camp, age interacted with gender, an indicator for being surveyed in the delayed July 2022 batch and community treatment intensity at varying radii. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, and so treatment effects are measured in standard deviations of the control group. All models include survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.17: Impact of the Livelihoods Program on Financial Security. **Proximity to Treated Units.**

| | Financial Security Index (stand) | Financial Security Index (stand) | Financial Security Index (stand) | Financial Security Index (stand) | Financial Security Index (stand) | Financial Security Index (stand) |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Treatment x Post | 1.48*** | 1.56*** | 1.45*** | 1.51*** | 1.60*** | 1.48*** |
| | [0.14] | [0.16] | [0.14] | [0.13] | [0.16] | [0.14] |
| Pctile of Control Group | 93% | 94% | 93% | 93% | 95% | 93% |
| Nbr Participants-Waves | 1,733 | 983 | 1,374 | 1,733 | 983 | 1,374 |
| Adj. R-squared | 0.34 | 0.35 | 0.34 | 0.34 | 0.36 | 0.34 |
| Controls | N | N | N | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |
| Sample | Full Sample | Control group restricted to units **close** (within 50m) to treated units | Control group restricted to units **away** (beyond 50m) from treated units | Full Sample | Control group restricted to units **close** (within 50m) to treated units | Control group restricted to units **away** (beyond 50m) from treated units |

*Notes:* The table measures the 3 period average effect of the livelihood programon on financial security for three sample selections. Columns (1) and (4) include the full sample, columns (2) and (5) only include control group units that are within 50m from a treated unit, while columns (3) and (6) exclude all control group units that are within 50m of a treated unit. Financial Security Index is an index of 6 proxies for financial security(ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6 month household income, whether the respondent has worked for at least one hour during the past week, and whether the respondent has a stable form of employment), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. The models in columns (1)-(3) include no controls, while models in columns (4)-(6) additionally control for household size and an indicator for being in the delayed July 2022 survey batch. The dependent variable is standardized to the control group's distribution, and so point effects are measured in standard deviations. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.18: Impact of the Livelihoods Program on Social Cohesion. **Proximity to Treated Units.**

| | Social Cohesion Index (stand) | Social Cohesion Index (stand) | Social Cohesion Index (stand) | Social Cohesion Index (stand) | Social Cohesion Index (stand) | Social Cohesion Index (stand) |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: OLS | | | | | |
| Financial Security Index | 0.17*** | 0.13*** | 0.16*** | 0.17*** | 0.13*** | 0.16*** |
| | [0.02] | [0.03] | [0.03] | [0.02] | [0.03] | [0.03] |
| Pctile of Control Group | 57% | 55% | 56% | 57% | 55% | 56% |
| Nbr Participants-Waves | 1,733 | 983 | 1,374 | 1,733 | 983 | 1,374 |
| Adj. R-squared | 0.14 | 0.15 | 0.16 | 0.14 | 0.15 | 0.16 |
| | Panel B: Reduced Form | | | | | |
| Treatment X Post | 0.54*** | 0.62*** | 0.50*** | 0.56*** | 0.64*** | 0.53*** |
| | [0.11] | [0.15] | [0.11] | [0.11] | [0.15] | [0.12] |
| Pctile of Control Group | 71% | 73% | 69% | 71% | 74% | 70% |
| Nbr Participants-Waves | 1,733 | 983 | 1,374 | 1,733 | 983 | 1,374 |
| Adj. R-squared | 0.12 | 0.15 | 0.14 | 0.12 | 0.15 | 0.14 |
| | Panel C: 2SLS [Instrument = Treatment x Post] | | | | | |
| Financial $\widehat{\text{Security}}$ Index | 0.36*** | 0.39*** | 0.35*** | 0.36*** | 0.39*** | 0.35*** |
| | [0.08] | [0.10] | [0.08] | [0.08] | [0.10] | [0.08] |
| Pctile of Control Group | 64% | 65% | 64% | 64% | 65% | 64% |
| Nbr Participants-Waves | 1,750 | 988 | 1,391 | 1,750 | 988 | 1,391 |
| First Stage F (KPW) | 121.49 | 92.54 | 102.47 | 124.87 | 93.49 | 104.66 |
| Controls | N | N | N | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y |
| Sample | Full Sample | Control group restricted to units **close** (within 50m) to treated units | Control group restricted to units **away** (beyond 50m) from treated units | Full Sample | Control group restricted to units **close** (within 50m) to treated units | Control group restricted to units **away** (beyond 50m) from treated units |

*Notes:* The table shows OLS [Panel A], Reduced Form [Panel B] and 2SLS [Panel C] estimates for the impact of financial security on social cohesion for three sample selections. Columns (1) and (4) include the full sample, columns (2) and (5) only include control group units that are within 50m from a treated unit, while columns (3) and (6) exclude all control group units that are within 50m of a treated unit. Social Cohesion Index is an index of 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. The models in columns (1)-(3) include no controls, while models in columns (4)-(6) additionally control for household size and an indicator for being in the delayed July 2022 survey batch. The dependent variable is standardized to the control group's distribution, and so point effects are measured in standard deviations. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.19: Impact of Livelihoods Program On Trust in Neighbors. **Proximity to Treated Units, Hosts Only.**

| | Trust in Neighbors | Trust in Neighbors | Trust in Neighbors | Trust in Neighbors | Trust in Neighbors | Trust in Neighbors |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Treatment | 0.25** | 0.44*** | 0.25** | 0.30*** | 0.44*** | 0.32** |
| | [0.10] | [0.13] | [0.12] | [0.11] | [0.14] | [0.13] |
| Controls | N | N | N | Y | Y | Y |
| Nbr Participants-Waves | 673 | 344 | 485 | 673 | 344 | 485 |
| Adj. R-squared | 0.01 | 0.03 | 0.01 | 0.02 | 0.02 | 0.03 |
| Sample | Full Sample | Control group restricted to units **close** (within 50m) to treated units | Control group restricted to units **away** (beyond 50m) from treated units | Full Sample | Control group restricted to units **close** (within 50m) to treated units | Control group restricted to units **away** (beyond 50m) from treated units |

*Notes:* The table measures the treatment effect on Trust in Neighbors for three sample selections. Columns (1) and (4) include the full sample, columns (2) and (5) only include control group units that are near (50m) a treated unit, while columns (3) and (6) exclude all control group units that are near (50m) a treated unit. Trust in Neighbors [1-10]asks the respondent how much their neighbors can be trusted. The models in columns (1)-(3) include no controls, while models in columns (4)-(6) control for age, gender, age squared, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique and age interacted with gender. The dependent variable is standardized to the control group's distribution, and so point effects are measured in standard deviations. All models include survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.20: Mediation Analysis, **Not Controling for Covariates**

| | *Mediators of Treatment → SC:* | | | | | |
|---|---|---|---|---|---|---|
| | Financial Security Index | Food Security Index | Mental Health Index | Job Satis-faction | Life Satis-faction | Engaged in Emp. 2yrs |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Average Causal Mediation Effect | 0.223*** | 0.082*** | -0.002 | 0.085*** | 0.020* | 0.078*** |
| | (0.051) | (0.026) | (0.024) | (0.017) | (0.011) | (0.018) |
| Average Direct Effect | 0.310* | 0.451*** | 0.541*** | 0.352*** | 0.415*** | 0.357*** |
| | (0.134) | (0.126) | (0.122) | (0.056) | (0.063) | (0.059) |
| Total Effect | 0.533*** | 0.533*** | 0.539*** | 0.437*** | 0.435*** | 0.435*** |
| | (0.127) | (0.125) | (0.126) | (0.058) | (0.060) | (0.062) |
| Prop. Mediated | 0.418*** | 0.154*** | -0.004 | 0.191*** | 0.043* | 0.178*** |
| | (0.157) | (0.062) | (0.052) | (0.045) | (0.027) | (0.042) |
| Observations | 1750 | 1750 | 1750 | 1283 | 1283 | 1282 |
| Mediator Model Adj-R2 | 0.333 | 0.184 | 0.045 | 0.054 | 0.028 | 0.035 |
| Outcome Model Adj-R2 | 0.143 | 0.142 | 0.146 | 0.083 | 0.048 | 0.094 |
| Controls | N | N | N | N | N | N |

*Notes:* The table shows results from the mediation analysis between Treatment and Social Cohesion following Imai et al. (2010). Each column presents a separate mediation analysis, where the mediator is Financial Security (Column 1), Food Security (Column 2), Mental Health (Column 3), Job Satisfaction (Column 4), Life Satisfaction (Column 5), and expectations of being employed in the next 2 years (Column 6). For each mediator, we report the Average Causal Mediation Effect, the Average Direct Effect, the Total Effect and the Proportion of the Total Effect that is mediated by the mediator. Social Cohesion Index is an index of 5 proxies for social cohesion (trust in-group, trust out-group, the extent to which the respondent feels that Mozambicans should get priority access to jobs and to government financial support, and the proportion of out-group friends). Financial Security Index is an index of 6 proxies for financial security( ease of paying a surprise bill, % of income saved the previous month, take-home monthly pay, average monthly household income (over the previous 6 months), whether the respondent has worked for at least one hour the past week and whether the respondent has a stable form of employment). Food Security Index is an index of 6 proxies for food security (how many meals the respondent had eaten the day before, how many meals children in the respondent's household had eaten the day before, how many meals other adults in the respondent's household had eaten the day before, whether the respondent had not skipped any meals in the previous 30 days, whether the respondent had not been worried about food in the previous 30 days, whether the respondent had been able to eat nutritiously in the previous 30 days, and whether the respondent had gone a full day without eating in the previous 30 days). Mental Health Index is an index of 4 proxies for mental health (depression, anxiety, self-esteem (reverse coded) and loneliness). All indicies are constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Models in columns (1)–(3) include respondent and survey fixed effects. Models in columns (4)–(6) include survey fixed effects only; respondent fixed effects are omitted because baseline data are unavailable for these mediators, which would cause the treatment variable to be dropped. No demographic controls are included in any column. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.21: Controlled Direct Effects After Adjusting For Potential Mediators

| | *Mediators of Treatment → SC* | | | | | |
|---|---|---|---|---|---|---|
| | Financial Security Index | Food Security Index | Mental Health Index | Job Satisfaction | Life Satisfaction | Engaged in Emp. 2 yrs |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Controlled Direct Effect | 0.314*** | 0.448*** | 0.540*** | 0.336*** | 0.393*** | 0.349*** |
| | ( 0.121) | ( 0.110) | ( 0.112) | ( 0.063) | ( 0.065) | ( 0.063) |
| Nbr Participants-Waves | 1750 | 1750 | 1750 | 1283 | 1283 | 1283 |
| Controls | Y | Y | Y | Y | Y | Y |

*Notes:* This table presents the direct effects of treatment on social cohesion after adjusting for each potential mediator in a separate model. The analysis uses a bootstrap procedure with 1000 replications to estimate the controlled direct effect (CDE) of treatment on social cohesion after removing the variation explained by each mediator, following Acharya et al. (2016) and Vansteelandt (2009). Social Cohesion Index is an index which measures 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs). Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6-month household income, whether the respondent has worked for at least one hour during the past week, and whether the respondent has a stable form of employment). Food Security Index is an index of 6 proxies for food security (how many meals the respondent ate yesterday, how many meals children in the respondent's household ate yesterday, how many meals other adults in the respondent's household ate yesterday, whether the respondent has not skipped any meals in the last 30 days, whether the respondent has not been worried about food in the past 30 days, whether the respondent has been able to eat nutritiously in the past 30 days, and whether the respondent has gone a full day without eating in the past 30 days). Mental Health Index is an index of 4 proxies for mental health (depression, anxiety, self-esteem and loneliness). All Indexes are constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group, within each survey and host/refugee subgroup. Models in columns (1)–(3) include respondent and survey fixed effects. Models in columns (4)–(6) include survey fixed effects only; respondent fixed effects are omitted because baseline data are unavailable for these mediators, which would cause the treatment variable to be dropped. We instead control for survey wave, age, gender, age squared, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique, age interacted with gender, a variable that captures average damage for neighbors within a 1000 m radius weighted by distance, and an indicator for having been surveyed in the July 2022 batch. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.22: Impact of Shocks on **Mental Health and Community Engagement**

| | Depression | Anxiety | Low Self-Esteem | Loneliness | Mental Health PC | Mental Health Index | Solve Community Problem |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | Panel A: Full Sample | | | | | | |
| Treatment X Post | 0.05 | -0.02 | -0.12 | 0.12 | 0.17 | 0.02 | -0.05 |
| | [0.12] | [0.12] | [0.12] | [0.13] | [0.16] | [0.12] | [0.05] |
| Control Group Mean (B) | 4.16 | 5.23 | 4.21 | 6.70 | 0.39 | -0.01 | 0.22 |
| Pctile of Control Group | 52% | 49% | 45% | 55% | 57% | 51% | 48% |
| Nbr Participants-Waves | 1732 | 1732 | 1733 | 1731 | 1733 | 1733 | 1733 |
| Adj. R-squared | 0.06 | 0.02 | 0.00 | 0.01 | 0.10 | 0.04 | 0.11 |
| | Panel B: Only Refugees | | | | | | |
| Treatment X Post | -0.07 | -0.11 | -0.30 | -0.18 | -0.21 | -0.23 | -0.01 |
| | [0.20] | [0.19] | [0.22] | [0.21] | [0.27] | [0.20] | [0.09] |
| Control Group Mean (B) | 4.88 | 5.50 | 4.31 | 7.17 | 0.78 | -0.00 | 0.37 |
| Pctile of Control Group | 47% | 46% | 38% | 43% | 42% | 41% | 50% |
| Nbr Participants-Waves | 498 | 499 | 499 | 497 | 499 | 499 | 499 |
| Adj. R-squared | 0.09 | 0.07 | 0.07 | 0.17 | 0.13 | 0.15 | 0.10 |
| | Panel C: Only Hosts | | | | | | |
| Treatment X Post | 0.19 | 0.05 | 0.03 | 0.35** | 0.42** | 0.23 | -0.00 |
| | [0.16] | [0.16] | [0.15] | [0.17] | [0.21] | [0.15] | [0.05] |
| Control Group Mean (B) | 3.97 | 5.16 | 4.18 | 6.57 | 0.28 | -0.02 | 0.18 |
| Pctile of Control Group | 58% | 52% | 51% | 64% | 66% | 59% | 50% |
| Nbr Participants-Waves | 1234 | 1233 | 1234 | 1234 | 1234 | 1234 | 1234 |
| Adj. R-squared | 0.04 | 0.01 | -0.03 | -0.05 | 0.05 | -0.00 | 0.12 |
| Controls | Y | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y | Y |

*Notes:* The table measures the 3 period average treatment effect on alternative mechanisms. Depression is total score from the following set of questions: Over the last 2 weeks, how often have you had little interest or pleasure in doing things?; Over the last 2 weeks, how often have you experienced feeling down or hopeless?; Over the last 2 weeks, how often have you experienced trouble falling or staying asleep, or sleeping too much?; Over the last 2 weeks, how often have you experienced trouble concentrating on things, such as reading the newspaper or watching television? . Anxiety is the total score from the following set of questions: Over the last 2 weeks, how often have you felt afraid as if something awful might happen?; Over the last 2 weeks, how often have you experienced feeling nervous, anxious or on edge? . Loneliness is the total score from the following questions: How often do you feel that there is no one you can turn to?; How often do you feel isolated from others?; How often do you feel that your interests and ideas are not shared by those around you?; How often do you feel you have a lot in common with the people around you? Self esteem is the total score from the following set of questions: I am able to do things as well as most other people; I feel useless at times; I feel that I am a person of worth, at least on an equal plane with others; I feel that I have a number of good qualities; I feel I do not have much to be proud of; I take a positive attitude toward myself; In most ways my life is close to ideal. Mental Health PCA is the first component of a PCA variable of 4 proxies for mental health (depression, anxiety, loneliness and self esteem). Mental Health Index is an index of 4 proxies for mental health in columns 1-4, constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Solve Community Problem is whether the respondent has engaged with local community leadership in the past 12 months. All models additionally control for household size and an indicator for having been surveyed in the July 2022 batch. All models include respondent and survey fixed effects. All dependent variables are standardized to the control group, within each survey and host/refugee subgroup, and so treatment effects are measured in standard deviations of the control group. The mean and standard deviation of the original (non-standardized) variable is shown in the table below. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table C.23: Impact of Shocks on **Gender, Political and Civic Norms**

| | Men Right To Jobs | More Women In Power | Both Husband And Wife Should Contribute | Education For Boys | Gender Norm Index | Must Obey Laws | Voting Is Important |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | Panel A: Full Sample | | | | | | |
| Treatment X Post | -0.23* | 0.17 | -0.10 | 0.01 | -0.02 | -0.05 | -0.07 |
| | [0.13] | [0.14] | [0.13] | [0.13] | [0.14] | [0.12] | [0.14] |
| Control Group Mean (BL) | 2.94 | 3.51 | 4.30 | 2.83 | 0.00 | 3.56 | 3.65 |
| Pctile of Control Group | 41% | 57% | 46% | 50% | 49% | 48% | 47% |
| Nbr Participants-Waves | 1326 | 1327 | 1327 | 900 | 1327 | 900 | 900 |
| Adj. R-squared | 0.03 | 0.04 | 0.00 | 0.01 | -0.00 | 0.03 | -0.00 |
| | Panel B: Only Refugees | | | | | | |
| Treatment X Post | -0.39* | 0.22 | -0.07 | 0.04 | -0.09 | -0.12 | -0.18 |
| | [0.22] | [0.24] | [0.24] | [0.25] | [0.23] | [0.24] | [0.25] |
| Control Group Mean (BL) | 2.68 | 3.58 | 4.32 | 3.03 | 0.01 | 3.72 | 3.72 |
| Pctile of Control Group | 35% | 59% | 47% | 52% | 46% | 45% | 43% |
| Nbr Participants-Waves | 388 | 388 | 388 | 266 | 388 | 266 | 266 |
| Adj. R-squared | 0.01 | 0.05 | 0.04 | 0.01 | 0.02 | 0.01 | -0.03 |
| | Panel C: Only Hosts | | | | | | |
| Treatment X Post | -0.15 | 0.15 | -0.07 | -0.00 | 0.03 | 0.03 | 0.03 |
| | [0.16] | [0.17] | [0.15] | [0.17] | [0.18] | [0.15] | [0.19] |
| Control Group Mean (BL) | 3.01 | 3.49 | 4.29 | 2.77 | 0.00 | 3.52 | 3.63 |
| Pctile of Control Group | 44% | 56% | 47% | 50% | 51% | 51% | 51% |
| Nbr Participants-Waves | 938 | 939 | 939 | 634 | 939 | 634 | 634 |
| Adj. R-squared | 0.03 | 0.03 | -0.02 | 0.00 | -0.02 | 0.04 | 0.02 |
| Controls | Y | Y | Y | Y | Y | Y | Y |
| Respondent and Survey FE | Y | Y | Y | Y | Y | Y | Y |

*Notes:* The table measures the 3 period average effect of the livelihoods program on gender, political, and civic norms. The outcome variables are agreement from 1 (no agreement) to 5 (full agreement) with statements and questions 1. "When jobs are scarce, men should have more right to a job than women", 2. "Do you believe there should be more women in positions of power in government?", 3. "Both the husband and wife should contribute to household income", 4. "An education is more important for a boy than for a girl", 5. an index constructed as the mean of the previous questions (a higher gender norm index indicates more egalitarian views), 6. "How important do you think it is for people to always obey laws and regulations?" and 7. "How important do you think it is for citizens to vote in elections?". All models additionally control for household size and an indicator for being in the delayed July 2022 survey batch. All dependent variables are standardized to the control group's distribution, within each survey and host/refugee subgroup, so the treatment effects are measured in standard deviations of the control group. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

# D Cost-Benefit Analysis

The full program cost amounted to 2789.50 USD per beneficiary, which was split into the following three categories of expenditures:

**Category 1**: includes indirect costs (10%) of i) UNHCR's office overhead costs; ii) 30% time for each year of the UNHCR livelihoods team staff; and iii) program start-up costs (equipment, engagement with local authorities and community leaders, beneficiary recruitment and contracting financial service providers).[47]

**Category 2**: includes the per unit estimated cost of implementing the program (approximately 36%), corresponding to $1,014$ USD. This represents the amount transferred directly to the program beneficiaries in the form of cash for consumption support, assets, and livelihoods start-up capital. The cash grant was given in two even lump-sum installments in May and August, 2021.

**Category 3**: The remaining approximately 54% of the total estimated costs went to UNHCR's implementing partner who implemented the coaching and hired and oversaw all the technical training on language skills, life skills, and individualized business plan coaching. The coaching sessions were conducted by a local community trained social worker at the household level and lasted anywhere between 1.5-3 hours per session. There were 10 coaching sessions per year, or 20 sessions over the life of the program.[48]

For each year we used the annual exchange rate for USD/Meticais following the IMF annual exchange rate for 2020 (1 Metical = 0.016 USD).

Future costs could be lower should the program be scaled up further so that the Program Management and Support work would be spread over more participating households.

[47] This costing exercise benefited from the use of Dioptra, which is a web-based cost analysis software that allows program staff in country offices, who are most familiar with day-to-day program implementation, to rapidly estimate the cost-efficiency of their program activities. It guides users through a standardized costing methodology, ensuring that all analysis results are methodologically consistent and can be meaningfully compared across different contexts and organizations.

[48] Percentages are rounded; exact shares for Categories 2 and 3 are 36.4% and 53.6%.

**Return on Investment:** We find that by the endline survey, livelihoods/graduation program beneficiaries increased their monthly household income by 1.55 standard deviations. This translates into median household monthly income increasing from 48 USD/month to 74 USD/month. To estimate when we would see a positive return on investment, we net out the direct cash transfer (1,014 USD) and estimate how long it would take to reach beyond the remaining 1,775.5 USD. We would need to assume that participants are able to sustain this increase over time for 24 months to have a positive return on investment.

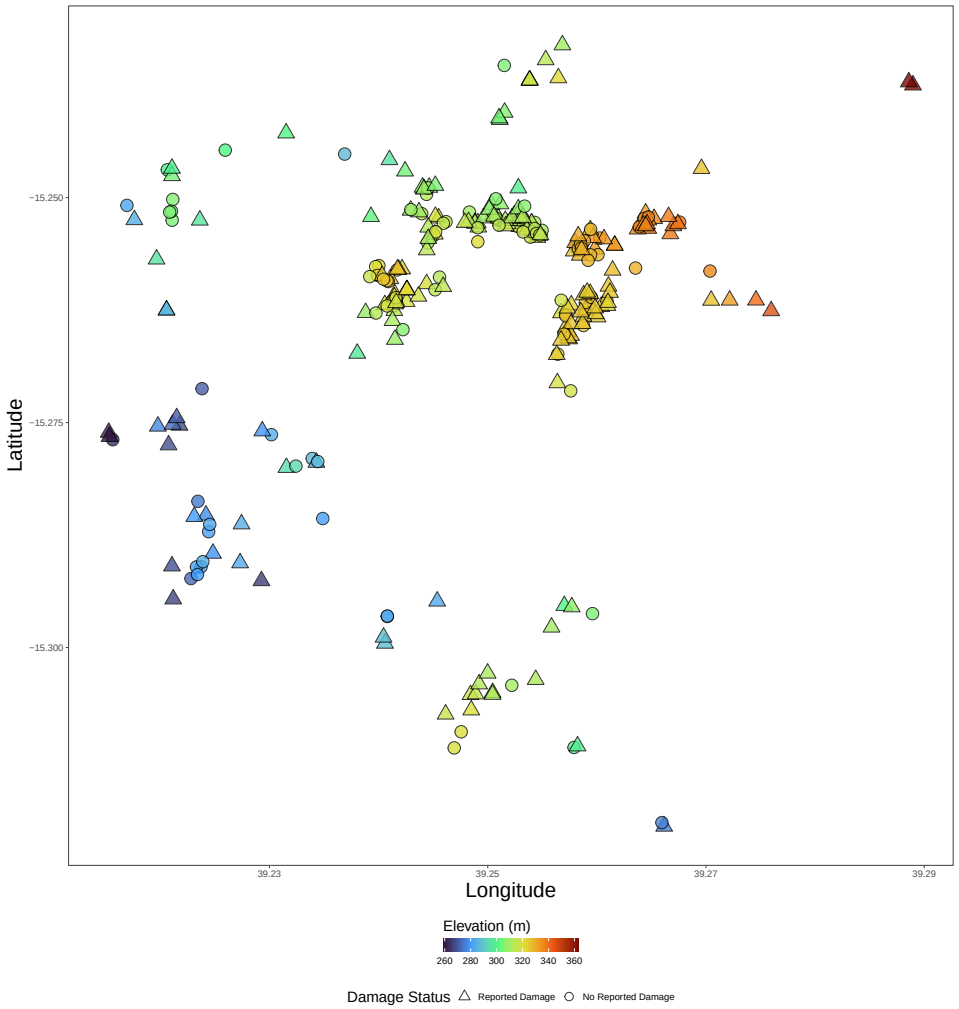
This is likely to represent a significant underestimate of the real returns to the program given the observed impact on social cohesion and social integration, which are both harder to quantify.

An alternative scenario is one in which instead of implementing the livelihoods/graduation program, UNHCR could have made a direct transfer of the full program costs to participating households. From our sample, average household size is about 5 persons - 4.9 persons for refugees and hosts 5.3. Moreover, the most recent estimates by the IMF show the average GDP/capita in Mozambique in 2022 per annum is about 588USD/person. This means that this alternative approach would have been equivalent to subsidizing the full income of a family of 5 for a year.

While we did not perform an experiment to test the impact of a direct transfer of the full estimated program costs vs the impact of the program, there is growing evidence that employment has intrinsic value, particularly for refugees. Hussam et al. (2022) conducts a direct comparison between providing cash grants and employment to refugees in Bangladesh and finds that employed males were 30 percent less likely to be depressed than their non-employed counterparts. Notably some 66 percent of those employed were willing to forgo cash payments to continue working temporarily for free.

# E Climate Shock

**Figure E.1:** Spatial Distribution of Damage and Elevation. **Hosts Only.**



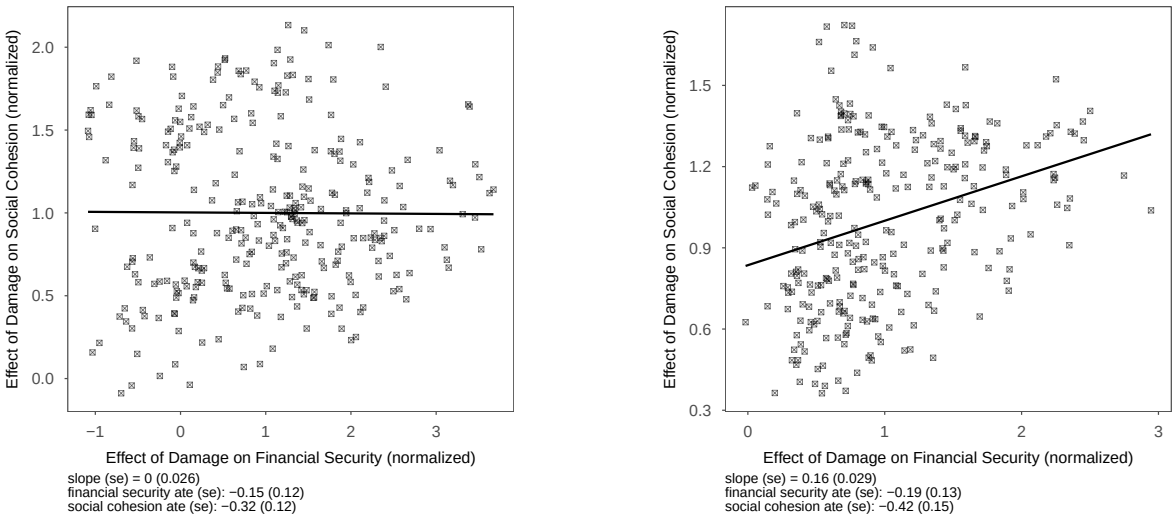

*Notes:* The figure displays the spatial distribution of surveyed households by damage status and elevation. Each point represents a household, with triangles indicating reported damage and circles indicating no reported damage. Point color corresponds to elevation in meters, with warmer colors (red/orange) representing higher elevations and cooler colors (blue/green) representing lower elevations.

Table E.1: Zero Stage. Geographic Exposure and House Damage. **Hosts Only**.

| | *Estimates From:* P(Damage) = elevation + lat + lon + $X_{it} \longrightarrow \widehat{\textbf{Damage}}$ | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Elevation | -0.00 | -0.66 | -3.37** | -7.45*** |
| | [0.00] | [0.78] | [1.35] | [2.31] |
| Latitude | 2.16** | 15.29 | 2.07** | 43.19** |
| | [0.93] | [15.88] | [0.93] | [18.68] |
| Longitude | 8.18*** | 8.74*** | -18.49* | -32.89*** |
| | [1.66] | [1.82] | [10.88] | [12.62] |
| Elevation * Latitude | . | -0.04 | . | -0.13** |
| | . | [0.05] | . | [0.06] |
| Elevation * Longitude | . | . | 0.09** | 0.14*** |
| | . | . | [0.03] | [0.04] |
| Nbr Participants-Waves | 1,196 | 1,196 | 1,196 | 1,196 |
| Adj. R-squared | 0.10 | 0.10 | 0.10 | 0.10 |
| **Zero Stage Instruments** | | | | |
| Elevation | Y | Y | Y | Y |
| Latitude | Y | Y | Y | Y |
| Longitude | Y | Y | Y | Y |
| Elevation * Latitude | N | Y | N | Y |
| Elevation * Longitude | N | N | Y | Y |

*Notes:* The table reports coefficients for elevation, latitude, and longitude in predicting house destruction from Cyclone Gombe. House Damage is an indicator variable that takes a value of 1 if the respondent reports that their house was damaged during Cyclone Gombe. All models control for age, gender, age interacted with gender, age squared, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique, a variable that captures community damage within a 1000m radius, weighted by distance, and an indicator for being surveyed in the delayed July 2022 batch. All estimates correspond to hosts only. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

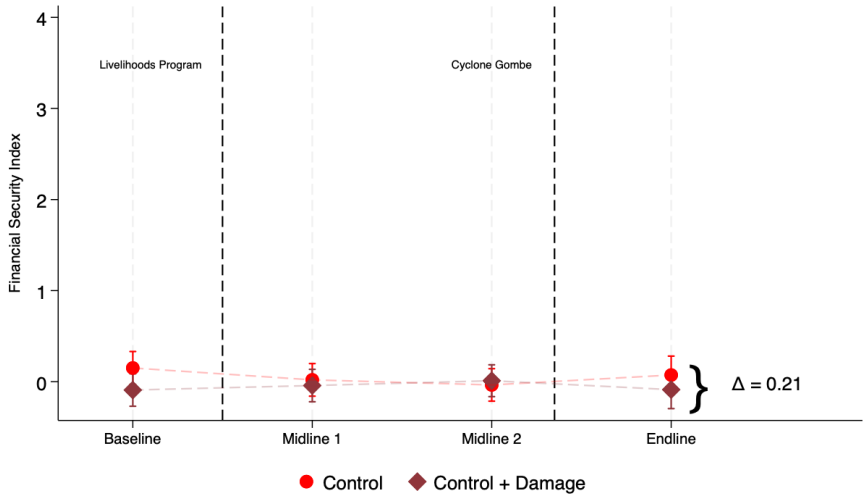
**Figure E.2:** Correlated Effects of Damage. **Hosts Only.**




**Panel A. Full Sample** **Panel B. Midline 2 to Endline**

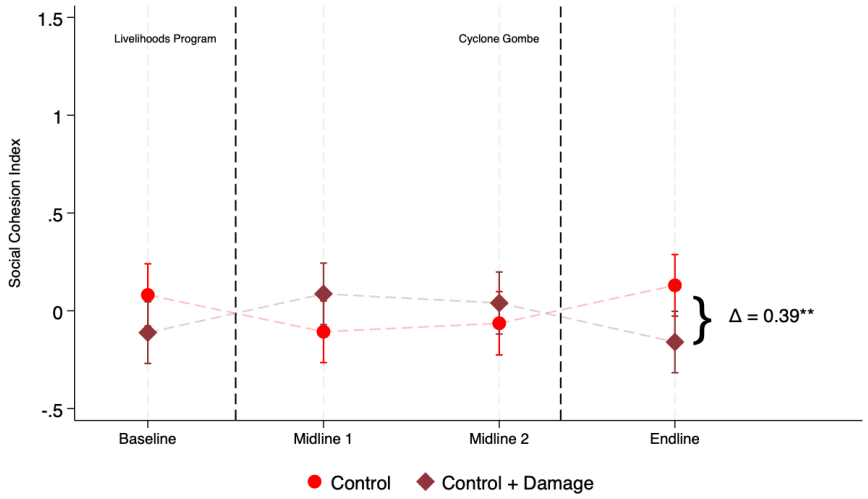
*Notes:* The figure shows the correlation between effects of damage on financial security (x-axis) and treatment effects on social cohesion (y-axis), computed by generalized random forests (Athey et al., 2019). Panel A shows the correlation of the effects of damage when using the full sample. Panel B shows the correlation of the effects of damage when restricting the sample to Midline 2 and Endline, i.e. the surveys just before and just after Cyclone Gombe. The average effects are comparable to our OLS estimates. Calibration tests show that the model for treatment effects is well fit by conventional standards, both in capturing the average effect, as well as heterogeneity in the underlying signal. The slope and standard error of the lines are shown below each graph. The y-axis is normalized by the average effect on social cohesion, and the x-axis is normalized by the average effect on financial security.

**Figure E.3:** Impact of Livelihoods and Gombe Shocks on Financial Security. **Control Group and Hosts Only**.




*Notes*: The figure shows the impact of the Livelihoods Program and Climate Shock on Financial Security across time, for the control group only. Financial Security is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6 month household income, whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. The y-axis shows the predicted value of Financial Security from a regression of Financial Security on the triple interaction of Treatment x survey x $\widehat{Damage}$ (including all double interactions and base effects).$\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. The model controls for age, gender, age squared, years of education, household size, first componment variable for housing amenities, years since arrival in Mozambique, age interacted with gender, a variable that captures average damage for neighbours within a 1000m radius, weighted by distance, and an indicator for July 2022 batch. The dependent variable is standardized to the control group's distribution, within each survey, and so point effects are measured in standard deviations. ***, **, and * indicate the difference $\Delta$ between the damage/non-damage groups at endline is significant at the 99%, 95%, and 90% levels, respectively.

**Figure E.4:** Impact of Treatment and Gombe Shock on Social Cohesion. **Control Group and Hosts Only**.




*Notes*: The figure shows the impact of the Livelihoods Program and Climate Shock on Social Cohesion across time, for the control group only. Social Cohesion is an index of 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support, and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. The y-axis shows the predicted value of Social Cohesion from a regression of Social Cohesion on the triple interaction of Treatment x survey x $\widehat{Damage}$ (including all double interactions and base effects).$\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. The model controls for age, gender, age squared, years of education, household size, first componment variable for housing amenities, years since arrival in Mozambique, age interacted with gender, a variable that captures average damage for neighbours within a 1000m radius, weighted by distance, and an indicator for July 2022 batch. The dependent variable is standardized to the control group's distribution, within each survey, and so point effects are measured in standard deviations. ***, **, and * indicate the difference $\Delta$ between the damage/non-damage groups at endline is significant at the 99%, 95%, and 90% levels, respectively.

Table E.2: Falsification Tests for Damage Estimates. **Hosts Only**.

| | Gender Norm Index | Gender Norm Index | Must Obey Laws | Must Obey Laws | Voting is Important | Voting is Important |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Elevation | 0.01 | -0.88 | -0.00 | -1.25 | 0.01* | 4.88 |
| | [0.00] | [6.17] | [0.00] | [7.19] | [0.00] | [7.50] |
| Latitude | -2.58 | 24.23 | -1.18 | -36.64 | -0.22 | -90.63 |
| | [2.48] | [47.08] | [2.89] | [54.97] | [3.02] | [57.33] |
| Longitude | -8.78** | -4.13 | 1.79 | -23.58 | -5.40 | -6.24 |
| | [4.34] | [36.19] | [5.06] | [42.10] | [5.28] | [43.90] |
| Elevation * Latitude | . | -0.09 | . | 0.12 | . | 0.29 |
| | . | [0.15] | . | [0.18] | . | [0.19] |
| Elevation * Longitude | . | -0.01 | . | 0.08 | . | -0.01 |
| | . | [0.12] | . | [0.14] | . | [0.14] |
| Nbr Participants-Waves | 909 | 909 | 604 | 604 | 604 | 604 |
| Adj. R-squared | 0.02 | 0.02 | 0.00 | 0.00 | 0.02 | 0.03 |
| **Zero Stage Instruments** | | | | | | |
| Elevation | Y | Y | Y | Y | Y | Y |
| Latitude | Y | Y | Y | Y | Y | Y |
| Longitude | Y | Y | Y | Y | Y | Y |
| Elevation * Latitude | N | Y | N | Y | N | Y |
| Elevation * Longitude | N | Y | N | Y | N | Y |

*Notes:* The table reports coefficients for elevation, latitude, and longitude in predicting baseline levels of gender, political, civic and norms. All dependent variables are standardized to the control group's distribution, within each survey, so effects are measured in standard deviations of the control group. All models control for age, gender, age interacted with gender, age squared, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique, distance to the center of Maratane camp, a variable that captures average damage for neighbours within a 1000m radius, weighted by distance, an indicator for being surveyed in the delayed July 2022 batch. All estimates correspond to hosts only. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table E.3: Impact of Cyclone Gombe On Financial Security and Social Cohesion. Controlling for Different Community Damage Radii. **Hosts Only**.

| | Financial Security Index (1) | Financial Security Index (2) | Financial Security Index (3) | Financial Security Index (4) | Social Cohesion Index (5) | Social Cohesion Index (6) | Social Cohesion Index (7) | Social Cohesion Index (8) |
|---|---|---|---|---|---|---|---|---|
| | *Panel A: Treatment Group* | | | | | | | |
| $\widehat{Damage}$ x Post-Gombe | -0.65** | -0.80*** | -0.80*** | -0.80*** | -0.31 | -0.45** | -0.45** | -0.45** |
| | [0.27] | [0.26] | [0.26] | [0.26] | [0.24] | [0.22] | [0.22] | [0.22] |
| Nbr Participants-Waves | 289 | 322 | 322 | 322 | 289 | 322 | 322 | 322 |
| Adj. R-squared | 0.21 | 0.18 | 0.18 | 0.18 | 0.21 | 0.23 | 0.23 | 0.23 |
| | *Panel B: Full Sample* | | | | | | | |
| $\widehat{Damage}$ x Post-Gombe | -0.24** | -0.24** | -0.24** | -0.24** | -0.29** | -0.31*** | -0.31*** | -0.31*** |
| | [0.12] | [0.11] | [0.11] | [0.11] | [0.13] | [0.12] | [0.12] | [0.12] |
| Nbr Participants-Waves | 1,034 | 1,196 | 1,196 | 1,196 | 1,034 | 1,196 | 1,196 | 1,196 |
| Adj. R-squared | 0.21 | 0.20 | 0.20 | 0.20 | 0.10 | 0.10 | 0.10 | 0.10 |
| Controls | Y | Y | Y | Y | Y | Y | Y | Y |
| Community Damage Radius | 100m | 500m | 1000m | 2000m | 100m | 500m | 1000m | 2000m |
| **Zero Stage Instruments** | | | | | | | | |
| Elevation | Y | Y | Y | Y | Y | Y | Y | Y |
| Latitude | Y | Y | Y | Y | Y | Y | Y | Y |
| Longitude | Y | Y | Y | Y | Y | Y | Y | Y |

*Notes:* The table measures the impact of Cyclone Gombe on Financial Security (columns 1–4) and Social Cohesion (columns 5–8) across different community damage radii. Panel A restricts the sample to the treatment group; Panel B uses the full host sample. Each column controls for average damage to neighbours within the specified radius (100m, 500m, 1000m, 2000m), weighted by distance. Financial Security Index is an index of 6 variables (ease of paying a surprise bill, % of income saved last month, take home monthly pay, average monthly household income (over the past 6 months), whether the respondent has worked for at least one hour during the past week, and whether the respondent has a stable form of employment). Social Cohesion Index is an index which measures 5 proxies for social cohesion (in-group trust, out-group trust, proportion of out-group friends, willingness to share financial support, and willingness to share jobs). Both indices are constructed by first equally weighting the average z-scores of each indicator, and then by standardizing again with reference to the non-damaged group. $\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. Panel B additionally controls for Treatment. The dependent variables are standardized to the non-damaged group's distribution within each survey, so point effects are measured in standard deviations. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99% confidence level, respectively.

Table E.4: Impact of Cyclone Gombe On Components of Financial Security. **Hosts Only**.

| | HH Income (6m) | Take Home Monthly Pay | Pct. Income Saved | Pay Surprise Bill | Any Work | Salaried Employ-ment | Financial Security Index |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | *Panel A: Treatment Group* | | | | | | |
| $\widehat{Damage}$ x Post-Gombe | -1.08*** | -0.23 | -0.38** | -0.56* | -0.27 | -0.15 | -0.80*** |
| | [0.34] | [0.35] | [0.19] | [0.28] | [0.33] | [0.33] | [0.26] |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Nbr Participants-Waves | 322 | 242 | 322 | 319 | 217 | 217 | 322 |
| Adj. R-squared | 0.05 | -0.02 | 0.26 | 0.23 | -0.09 | 0.03 | 0.18 |
| | *Panel B: Full Sample* | | | | | | |
| $\widehat{Damage}$ x Post-Gombe | -0.36*** | -0.16 | -0.07 | 0.06 | -0.15 | -0.15 | -0.24** |
| | [0.12] | [0.14] | [0.09] | [0.12] | [0.15] | [0.14] | [0.11] |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Nbr Participants-Waves | 1,196 | 880 | 1,196 | 1,180 | 864 | 864 | 1,196 |
| Adj. R-squared | 0.07 | 0.07 | 0.33 | 0.10 | 0.00 | 0.11 | 0.20 |
| **Zero Stage Instruments** | | | | | | | |
| Elevation | Y | Y | Y | Y | Y | Y | Y |
| Latitude | Y | Y | Y | Y | Y | Y | Y |
| Longitude | Y | Y | Y | Y | Y | Y | Y |

*Notes:* The table measures the impact of Cyclone Gombe on Financial Security. HH Income (6m) is average monthly household income over the past 6 months (from reported earnings per month in various activities over the past 6 months). Take-Home pay (1m) is the respondent's reported take-home monthly pay in the previous month. Pct Income Saved is the % of income saved in the previous month. Pay Suprise Bill [0-3] measures the extent to which the respondent feels they can pay a surprise bill of 6000 mtc, ranging for not at all (0) to very easily (3). Any Work measures whether the respondent has worked for at least one hour during the past week. Salaried Employment measures whether the respondent has a stable form of employment. Financial Security Index is an index of 6 proxies for financial security (ease of paying a surprise bill, % of income saved in the previous month, take home monthly pay, and average monthly household income (over the past 6 months), whether the respondent has worked for at least one hour during the past week, whether the respondent has a stable form of employment), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the non-damaged group. $\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. All models additionally control for household size, a variable that captures average damage for neighbours within a 1000m radius, weighted by distance, Treatment, and an indicator for being surveyed in the delayed 2022 survey batch. The dependent variable is standardized to the non-damaged group's distribution, within each survey, and so point effects are measured in standard deviations. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table E.5: Impact of Cyclone Gombe On Components of Social Cohesion. **Hosts Only**.

| | Trust In-Group | Trust Out-Group | Prop Out-Group Friends | Share Fin. Support | Share Jobs | Social Cohesion Index |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | *Panel A: Treatment Group* | | | | | |
| $\widehat{Damage}$ x Post-Gombe | -0.11 | -0.37 | -0.21 | -0.12 | -0.17 | -0.37* |
| | [0.29] | [0.27] | [0.23] | [0.29] | [0.28] | [0.22] |
| Controls | Y | Y | Y | Y | Y | Y |
| Nbr Participants-Waves | 224 | 224 | 322 | 246 | 246 | 322 |
| Adj. R-squared | 0.15 | 0.24 | 0.15 | 0.10 | 0.15 | 0.23 |
| | *Panel B: Full Sample* | | | | | |
| $\widehat{Damage}$ x Post-Gombe | 0.06 | -0.41*** | -0.23* | -0.19 | -0.20 | -0.32*** |
| | [0.15] | [0.15] | [0.12] | [0.14] | [0.14] | [0.12] |
| Controls | Y | Y | Y | Y | Y | Y |
| Nbr Participants-Waves | 651 | 645 | 1,196 | 909 | 908 | 1,196 |
| Adj. R-squared | 0.15 | 0.16 | 0.09 | 0.02 | 0.07 | 0.10 |
| **Zero Stage Instruments** | | | | | | |
| Elevation | Y | Y | Y | Y | Y | Y |
| Latitude | Y | Y | Y | Y | Y | Y |
| Longitude | Y | Y | Y | Y | Y | Y |

*Notes:* The table measures the impact of Cyclone Gombe on the components of Social Cohesion. Trust ingroup [1-10] asks the respondent how trusting they are of members of their ingroup (hosts). Trust outgroup [1-10] asks the respondent how trusting they are of members of their outgroup (refugees). Prop outgroup friends [0-1] asks the respondent what proportion of their friends belong to the outgroup. Share Fin. Support and Share Jobs measure the extent to which the respondent feels that Mozambicans should not be prioritized in accessing government financial support and in accessing jobs (both, on a scale of 1-5). Social Cohesion is an index which measures 5 proxies for social cohesion (trust in-group, trust out-group, proportion of out-group friends, willingness to share financial support and willingness to share jobs), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardizing these again with reference to the non-damaged group. $\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. All models additionally control for household size, a variable that captures average damage for neighbours within a 1000m radius, weighted by distance, Treatment, and an indicator for being surveyed in the delayed 2022 survey batch. The dependent variable is standardized to the non-damaged group's distribution, within each survey, and so point effects are measured in standard deviations. All models include respondent and survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Table E.6: Impact of Livelihoods Program and Cyclone Gombe On Ability to Pay Surprise Bill. **Hosts Only**.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Panel A: Ability to Pay Surprise Bill = Treatment× Post+$Xit$ | | | |
| Treatment | -0.18 | -0.09 | -0.08 | -0.08 |
| | [0.13] | [0.13] | [0.13] | [0.13] |
| Post | 0.16* | 0.22*** | 0.22*** | 0.22*** |
| | [0.09] | [0.08] | [0.08] | [0.08] |
| Treatment x Post | 1.27*** | 1.13*** | 1.13*** | 1.13*** |
| | [0.15] | [0.14] | [0.14] | [0.14] |
| Nbr Participants-Waves | 1,055 | 1,225 | 1,225 | 1,225 |
| Adj. R-squared | 0.15 | 0.13 | 0.13 | 0.13 |
| Controls | Y | Y | Y | Y |
| Community Treatment Radius | 100m | 500m | 1000m | 2000m |
| | Panel B: Ability to Pay Surprise Bill = $\widehat{Damage}_i$ × Post+$Xit$ | | | |
| $\widehat{Damage}$ | 0.08 | 0.07 | 0.08 | 0.08 |
| | [0.08] | [0.08] | [0.08] | [0.08] |
| $\widehat{Damage}$ x Post-Gombe | 0.01 | 0.03 | 0.03 | 0.03 |
| | [0.13] | [0.12] | [0.12] | [0.12] |
| Post-Gombe | -0.54*** | -0.58*** | -0.58*** | -0.58*** |
| | [0.08] | [0.08] | [0.08] | [0.08] |
| Nbr Participants-Waves | 1,020 | 1,180 | 1,180 | 1,180 |
| Adj. R-squared | 0.11 | 0.11 | 0.11 | 0.11 |
| Controls | Y | Y | Y | Y |
| Community Damage Radius | 100m | 500m | 1000m | 2000m |
| **Zero Stage Instruments (Panel B only)** | | | | |
| Elevation | Y | Y | Y | Y |
| Latitude | Y | Y | Y | Y |
| Longitude | Y | Y | Y | Y |

*Notes:* The table measures the impact of the Livelihoods Program (Panel A) and Cyclone Gombe (Panel B) on Ability to Pay Surprise Bill. Ability to Pay a Surprise Bill is the response to a question about how easy it would be to pay an unexpected expense of 4500 meticais. Higher values indicate greater ease. Panel A shows the effect of the Livelihoods Program. Panel B shows the effect of Cyclone Gombe. Each column in Panel A uses a different radius for the community treatment variable (average treatment for neighbours during the Livelihoods Program within the specified radius, weighted by distance). Each column in Panel B uses a different radius for the community damage variable (average damage for neighbours within the specified radius, weighted by distance). $\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. All models control for age, gender, age interacted with gender, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, distance to the center of Maratane camp, and an indicator for being surveyed in the delayed 2022 survey batch. Panel B specification further controls for treatment. Variables are standardized against the baseline distribution. *, **, and *** indicate statistical significance at the 90%, 95%, and 99% confidence level, respectively.

Table E.7: Impact of Livelihoods Program and Cyclone Gombe On Drawing from Savings. **Hosts Only**.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Panel A: Drawing from Savings = Treatment× Post+$Xit$ | | | |
| Treatment | 0.00 | 0.09 | 0.09 | 0.10 |
| | [0.15] | [0.15] | [0.15] | [0.15] |
| Post | 0.09 | 0.15* | 0.15* | 0.15* |
| | [0.09] | [0.08] | [0.08] | [0.08] |
| Treatment x Post | 1.45*** | 1.25*** | 1.25*** | 1.25*** |
| | [0.18] | [0.18] | [0.18] | [0.18] |
| Nbr Participants-Waves | 1,069 | 1,241 | 1,241 | 1,241 |
| Adj. R-squared | 0.17 | 0.16 | 0.16 | 0.16 |
| Controls | Y | Y | Y | Y |
| Community Treatment Radius | 100m | 500m | 1000m | 2000m |
| | Panel B: Drawing from Savings = $\widehat{Damage}_i$ × Post+$Xit$ | | | |
| $\widehat{Damage}$ | 0.03 | 0.07 | 0.07 | 0.07 |
| | [0.11] | [0.10] | [0.10] | [0.10] |
| $\widehat{Damage}$ x Post-Gombe | 0.02 | -0.05 | -0.05 | -0.05 |
| | [0.14] | [0.13] | [0.13] | [0.13] |
| Post-Gombe | -0.58*** | -0.58*** | -0.59*** | -0.59*** |
| | [0.10] | [0.09] | [0.09] | [0.09] |
| Nbr Participants-Waves | 1,034 | 1,196 | 1,196 | 1,196 |
| Adj. R-squared | 0.14 | 0.14 | 0.14 | 0.14 |
| Controls | Y | Y | Y | Y |
| Community Damage Radius | 100m | 500m | 1000m | 2000m |
| **Zero Stage Instruments (Panel B only)** | | | | |
| Elevation | Y | Y | Y | Y |
| Latitude | Y | Y | Y | Y |
| Longitude | Y | Y | Y | Y |

*Notes:* The table measures the impact of the Livelihoods Program (Panel A) and Cyclone Gombe (Panel B) on Drawing from Savings. Drawing from Savings is the response to a question about whether the respondent would draw from savings to pay an unexpected expense. Higher values indicate greater likelihood of using savings. Panel A shows the effect of the Livelihoods Program. Panel B shows the effect of Cyclone Gombe. Each column in Panel A uses a different radius for the community treatment variable (average treatment for neighbours during the Livelihoods Program within the specified radius, weighted by distance). Each column in Panel B uses a different radius for the community damage variable (average damage for neighbours within the specified radius, weighted by distance). $\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. All models control for age, gender, age interacted with gender, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, distance to the center of Maratane camp, and an indicator for being surveyed in the delayed 2022 survey batch. Panel B specification further controls for treatment. Variables are standardized against the baseline distribution. *, **, and *** indicate statistical significance at the 90%, 95%, and 99% confidence level, respectively.

Table E.8: Impact of Livelihoods Program and Cyclone Gombe On Present Bias. **Hosts Only**.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Panel A: Present Bias = Treatment+$Xit$ | | | |
| Treatment | 0.11 | 0.10 | 0.10 | 0.09 |
| | [0.07] | [0.07] | [0.07] | [0.07] |
| Nbr Participants-Waves | 792 | 917 | 917 | 917 |
| Adj. R-squared | 0.01 | 0.01 | 0.01 | 0.01 |
| Community Treatment Radius | 100m | 500m | 1000m | 2000m |
| | Panel B: Present Bias = $\widehat{Damage}_i$ × Post+$Xit$ | | | |
| $\widehat{Damage}$ | -0.06 | -0.06 | -0.06 | -0.07 |
| | [0.10] | [0.09] | [0.09] | [0.09] |
| $\widehat{Damage}$ x Post-Gombe | 0.02 | 0.07 | 0.07 | 0.07 |
| | [0.10] | [0.10] | [0.10] | [0.10] |
| Post-Gombe | 0.61*** | 0.57*** | 0.57*** | 0.57*** |
| | [0.07] | [0.07] | [0.07] | [0.07] |
| Nbr Participants-Waves | 774 | 894 | 894 | 894 |
| Adj. R-squared | 0.11 | 0.11 | 0.11 | 0.11 |
| Controls | Y | Y | Y | Y |
| Community Damage Radius | 100m | 500m | 1000m | 2000m |
| **Zero Stage Instruments (Panel B only)** | | | | |
| Elevation | Y | Y | Y | Y |
| Latitude | Y | Y | Y | Y |
| Longitude | Y | Y | Y | Y |

*Notes:* The table measures the impact of the Livelihoods Program (Panel A) and Cyclone Gombe (Panel B) on Present Bias. Present Bias is measured using a multiple price list question asking respondents whether they prefer 100 meticais tomorrow or a larger amount (110, 120, 130, or 140 meticais) in 1 week. Higher values indicate more present bias (prefer immediate smaller payments over delayed larger amounts). Panel A shows the effect of the Livelihoods Program. Panel B shows the effect of Cyclone Gombe. Each column in Panel A uses a different radius for the community treatment variable (average treatment for neighbours during the Livelihoods Program within the specified radius, weighted by distance). Each column in Panel B uses a different radius for the community damage variable (average damage for neighbours within the specified radius, weighted by distance). $\widehat{Damage}$ is a binary indicator equal to 1 if a respondent's predicted damage is above the median within their survey and treatment group. Predicted damage is obtained from a regression of self-reported house damage on elevation, latitude, longitude, and controls. All models control for age, gender, age interacted with gender, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, distance to the center of Maratane camp, and an indicator for being surveyed in the delayed 2022 survey batch. Panel B specification further controls for treatment. Variables are standardized against the baseline distribution. *, **, and *** indicate statistical significance at the 90%, 95%, and 99% confidence level, respectively.

Table E.9: Heterogeneous Effects of Cyclone Gombe on Behavioral Variables by Pre-Gombe Financial Security. **Hosts Only**.

| | Present Bias | Surprise Bill | Drawing from Savings |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Effect of Post-Gombe by Baseline FS Quartile:* | | | |
| Q1 (Lowest FS) | 0.45*** | -0.47*** | -0.22*** |
| | [ 0.10] | [ 0.10] | [ 0.04] |
| Q2 | 0.86*** | -0.55*** | -0.26*** |
| | [ 0.10] | [ 0.08] | [ 0.06] |
| Q3 | 0.57*** | -0.48*** | -0.54*** |
| | [ 0.09] | [ 0.12] | [ 0.08] |
| Q4 (Highest FS) | 0.55*** | -0.52*** | -0.49*** |
| | [ 0.09] | [ 0.13] | [ 0.12] |
| Controls | Y | Y | Y |
| Nbr Participants-Waves | 880 | 1,160 | 1,175 |
| Joint F-test (interactions) | 3.16 | 0.18 | 4.99 |

*Notes:* The table shows heterogeneous effects of Cyclone Gombe on financial behavior variables by baseline (pre-cyclone) financial security quartile. Respondents are divided into quartiles based on their Financial Security Index at ML2 (survey 3). Financial Security Index is an index of 6 variables (ease of paying a surprise bill, % of income saved last month, take home monthly pay, 6 month household income, whether the respondent has worked for at least one hour during the past week, and whether the respondent is a salaried employee). Each cell shows the total effect of Post-Gombe for that quartile (i.e., the sum of the main effect and the interaction term). Q1 represents respondents with the lowest pre-cyclone financial security, Q4 the highest. The Joint F-test tests whether the interaction terms (Post-Gombe × FS Quartile) are jointly significant, indicating heterogeneous effects. All models control for age, gender, age interacted with gender, years of education, household size, housing amenities, whether the respondent speaks portuguese, distance to the center of Maratane camp, average damage for neighbours, within a 1000m radius, weighted by distance, treatment status, and an indicator for having been surveyed in the delayed July 2022 batch. Standard errors clustered at the individual level. *, **, and *** indicate statistical significance at the 90%, 95%, and 99% confidence level, respectively.

Table E.10: Placebo Test for Seasonality. **Control Group Hosts Only**.

| | Ability to Pay Surprise Bill (1) | Drawing from Savings (2) |
|---|---|---|
| Midline 1 (May 2021, Harvest) | 1.06*** | 0.59*** |
| | [0.12] | [0.13] |
| Midline 2 (Dec 2021, Non-Harvest) | -0.16 | 0.01 |
| | [0.10] | [0.09] |
| Controls | Y | Y |
| Nbr Participants-Waves | 668 | 679 |
| Adj. R-squared | 0.19 | 0.05 |

*Notes:* The table reports a placebo test for seasonality. The sample is restricted to control group hosts only (Treatment=0). The specification compares baseline to midline 1 (May 2021) and midline 2 (December 2021), neither of which coincided with the cyclone. Midline 1 (May 2021) was conducted during harvest season; midline 2 (December 2021) was not. Coefficients show the change in each outcome from baseline for control group hosts. Ability to Pay a Surprise Bill is the response to a question about how easy it would be to pay an unexpected expense of 4500 meticais. Drawing from Savings measures whether the respondent would draw from savings to pay an unexpected expense. Both variables are standardized against the baseline control group distribution. If generic seasonality drove the Post-Gombe decline observed in Tables E.7 and E.8, a similar negative coefficient would be expected at both midlines. All models control for age, gender, age interacted with gender, years of education, household size, first component variable for housing amenities, whether the respondent speaks Portuguese, distance to the center of Maratane camp, and an indicator for being surveyed in the delayed 2022 survey batch. Standard errors clustered at the individual level. *, **, and *** indicate statistical significance at the 90%, 95%, and 99% confidence level, respectively.