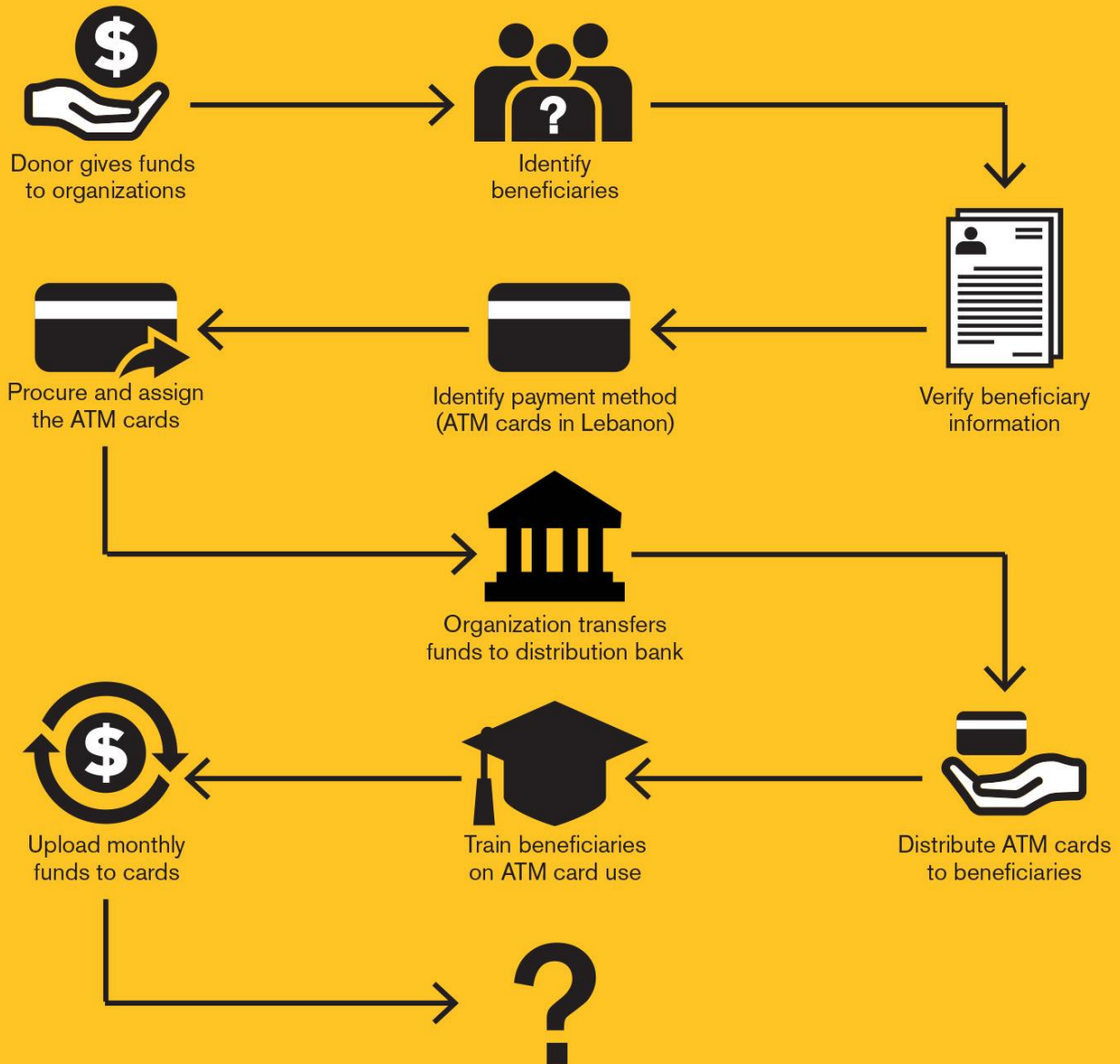




Emergency Economies: The Impact of Cash Assistance in Lebanon



An Impact Evaluation of the 2013-2014 Winter Cash Assistance Program for Syrian Refugees in Lebanon

August 2014

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Note to the Reader

In reporting the findings of this report, the research team adheres to the reporting guidelines adopted by the International Initiative for Impact Evaluation (Bose 2010) and aims to assist investigators, authors, reviewers, journal editors, and future researchers in understanding the study and interpreting its results. In doing so, the Research Team emphasizes the setting and background in which the study took place, underlying theories influencing the study, the research design, a detailed discussion of the intervention protocol and a thorough discussion of the results.

This report is written for a non-academic audience and thus avoids technical jargon and discussions wherever possible. The term 'winterization cash transfer' is used interchangeably with 'winter cash assistance.' The terms are derived from the UNHCR objective to provide support to refugees to stay warm in the winter months.

Preface

The IRC is delighted to share with you the results and recommendations from our impact evaluation on the UNHCR winter cash assistance program in Lebanon. The IRC commissioned this research for three principal reasons.

First, this research aligns with an organizational commitment to using and generating evidence on the effectiveness of humanitarian interventions by measuring impact on the lives of people they are intended to help. While the use of cash has increased significantly over the past decade,¹ there is little rigorous evidence of the impact of cash assistance programs in refugee crises. To our knowledge, **this is the first study to rigorously compare refugees receiving cash to those not receiving cash, which makes it possible to quantify the causal impact of the assistance.**

Second, the IRC, alongside the Government of Lebanon and much of the humanitarian and development community, has responded to the continued flow of Syrian refugees across Lebanon's borders. As a result of the Syrian refugee influx, the World Bank estimated that the Lebanese economy would incur a cost of \$7.5 billion.² This influx has placed enormous strain on the host populations that have welcomed them and the municipal services that have been stretched to accommodate the increased populations. However, the IRC thought it was also important to understand if there was flipside to the perceived refugee 'burden.' **In other words, to what extent did cash assistance have a positive impact on Lebanon's economy?**

Lastly, **the IRC wanted to understand whether there were any unintended negative consequences of cash assistance.** This meant addressing questions like "Does cash have inflationary effects on the economy?" and "Do recipients use cash for purchases such as alcohol or tobacco?" The IRC's aim was to gather evidence about the influence of cash on social dynamics between refugee recipients and host community non-recipients to contribute to validating or allaying potential concerns. The Research Team also gathered greater evidence around the appropriateness of cash in emergency refugee settings.

¹ Cash disbursements in humanitarian emergencies tripled between 2008 and 2012, peaking at \$262 million in 2010. Global Humanitarian Assistance Report 2013 <http://www.globalhumanitarianassistance.org/wp-content/uploads/2013/07/GHA-Report-2013.pdf>

²World Bank Economic and Social Impact Report. September 2013.

Executive Summary

This report describes the impacts of the winter cash transfer program run by UNHCR and partners from November 2013 to April 2014. The program gave \$575 USD via ATM cards to 87,700 registered Syrian refugees in Lebanon with the objective of keeping people warm and dry during cold winter months.



This research measured the impacts of cash on numerous metrics of household well-being, negative coping strategies, and food and non-food consumption. It tested whether cash produces negative consequences, such as local-level inflation or the drawing of more refugees to regions with assistance (a “pull factor”). And finally, it sought to estimate the multiplier effect of cash aid. For every dollar of cash assistance, how much would the Lebanese economy benefit?

The study was based on a rigorous design that allows the Research Team to quantify the causal impacts of the winterization program. According to selection criteria of the program, households residing above 500-meters altitude were eligible for cash assistance, while those living below 500 meters were not. In order to evaluate the program’s impact, the study compared beneficiaries residing slightly above 500 meters (treatment group) to similar non-beneficiaries residing slightly below (control group). Treatment and control groups had very similar characteristics prior to the start of the program. Differences measured after the program’s implementation represent causal impacts of cash assistance.

This research design is a key contribution to research on Syrian refugees in Lebanon, and more generally to research on the impacts of cash aid in a humanitarian crisis. This is the **first study**, to the researchers’ knowledge, to **rigorously compare refugees receiving cash to those not receiving cash, which makes it possible to quantify the causal**

impact of the assistance.

The research found a number of impacts from the cash assistance:

- The current value of cash assistance is too low to meet the program’s objective of allowing all beneficiaries to keep warm constantly throughout the winter and beneficiaries only partially use it for this purpose. Cash assistance for beneficiaries at high altitude during winter months increases spending on heating supplies, however, almost half of beneficiaries report that heating supplies were often not enough to keep warm. This is not because heating supplies are unavailable in the market, but because beneficiaries’ income is so low that they are forced to use the cash assistance to satisfy other basic needs, in particular food. Households spent the majority of cash assistance on food and water despite receiving food vouchers from WFP.
- The program did not have a meaningful impact on prices. Markets are able to provide sufficient quantities of the goods and services that beneficiaries demand. Across approximately 50 consumer goods the Research Team observed no meaningful trend toward higher prices in treatment communities.
- Cash assistance increases access to school and reduces child labor. The program also increases mutual support between beneficiaries and other community members, and decreases tensions within beneficiary households.
- The program has significant multiplier effects on the local economy. Each dollar that beneficiaries spend generates 2.13 dollars of GDP for the Lebanese economy.

- The vast majority of beneficiaries (more than 80 percent) prefer cash assistance compared to in-kind assistance (e.g., food parcels).
- The study found no evidence of a number of hypothesized negative consequences of cash assistance. For instance, there was no evidence of beneficiaries spending cash assistance irresponsibly or meaningfully reducing labor supply. The research did not find that cash assistance exacerbates corruption and exploitation.
- There is no evidence that cash assistance is a pull factor for refugees to settle in communities where cash is distributed.
- Refugee households have no savings and a household's labor income is not even high enough to cover the cost for food and water. The average value of currently outstanding cash loans is about \$500 USD per household.

This report is not an analysis of the program's rollout or the cost effectiveness of cash transfers. This research identifies the impact of cash transfers on beneficiaries and communities. In terms of lessons learned, this research should be considered in concert with the Danish Refugee Council (DRC) report on lessons learned from the winterization roll-out and the upcoming DFID study on the relative cost-effectiveness of cash transfer programs. These projects together contribute a wealth of evidence about how cash programs in Lebanon should be designed and implemented and what outcomes can be expected.

The report is organized in six sections. Sections One and Two provide an overview of the winterization program, the profile of beneficiaries included in the program and a review of the literature in which this study might be contextualized. Sections Three and Four detail the evaluation design and methodology. Section Five presents the results of the research and the final section provides an overview of key findings.

1.0 Introduction

1.1 Background of the Syrian Refugee Crisis

The toll of the Syrian conflict on innocent civilians has been immense. According to the United Nations (UN), the number of Syrians in need has skyrocketed to 10.8 million, 6 million of whom are internally displaced. Severe human rights violations continue to be committed by government and opposition forces. In the absence of an inclusive political solution, there is no end to the conflict in sight.³

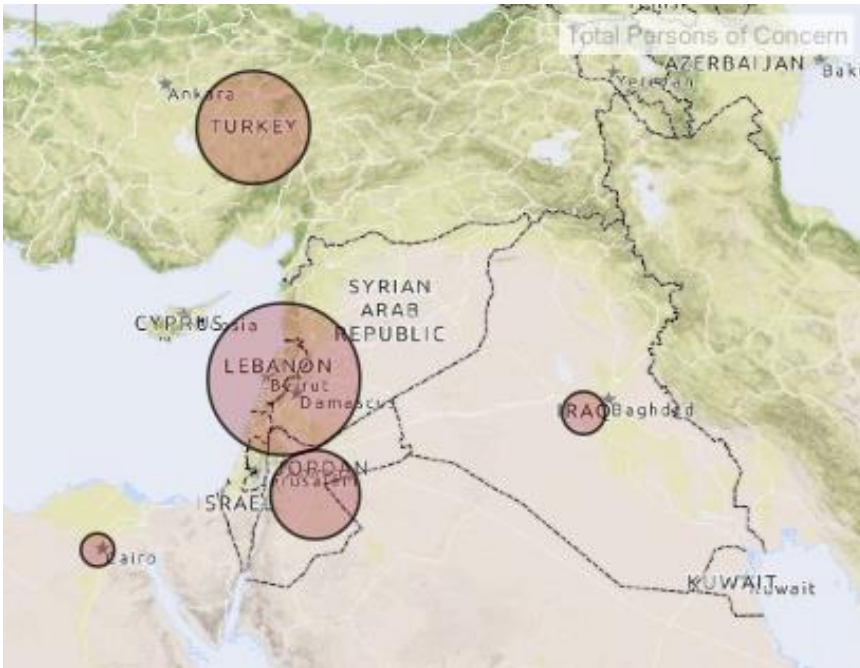


Figure 1 Distribution of Syrian Persons of concern by country⁵

Since the beginning of the conflict in 2011, Syrians have fled to Lebanon, Jordan, Turkey, Iraq, Egypt and beyond. The movement of Syrians due to the country's ongoing civil conflict has caused the world's largest ongoing refugee crisis.⁴

According to the UN, there are 2.9 million Syrian refugees in neighboring countries.⁵ Figure 1 shows the distribution of refugees across the region.

More Syrian refugees reside in Lebanon than in any other country. Lebanon is located directly next to the populous western area of Syria that has seen much intense fighting and brutality since the conflict began in 2011. The pace of the refugee flow has more than quadrupled since 2012. At the beginning of 2013 there were 130,799 Syrians registered with

UNHCR in Lebanon. By the beginning of April 2013 this had increased to a quarter of a million. By the beginning of 2014, there were 807,000 registered refugees. As of May 2014, more than one million Syrians were registered with UNHCR in Lebanon. According to UNHCR, as of August 2014 almost 40,000 were awaiting registration.⁶ The magnitude of the crisis can only be understood relative to Lebanon's population of around 4.5 million people.

Since refugee camps have not been established in Lebanon⁷, Syrian refugees live in over 1,000 villages and communities across the country and increasingly reside in informal settlements (IS). The influx of refugees over the last three years is overwhelming the already strained social, economic, and political fabric of the country. Tensions between host communities and refugees are rising, and relentless displacement threatens to destabilize the delicate political balance in Lebanon.

³ <http://www.un.org/apps/news/story.asp?NewsID=42079#.U5gqD5SSwfc>

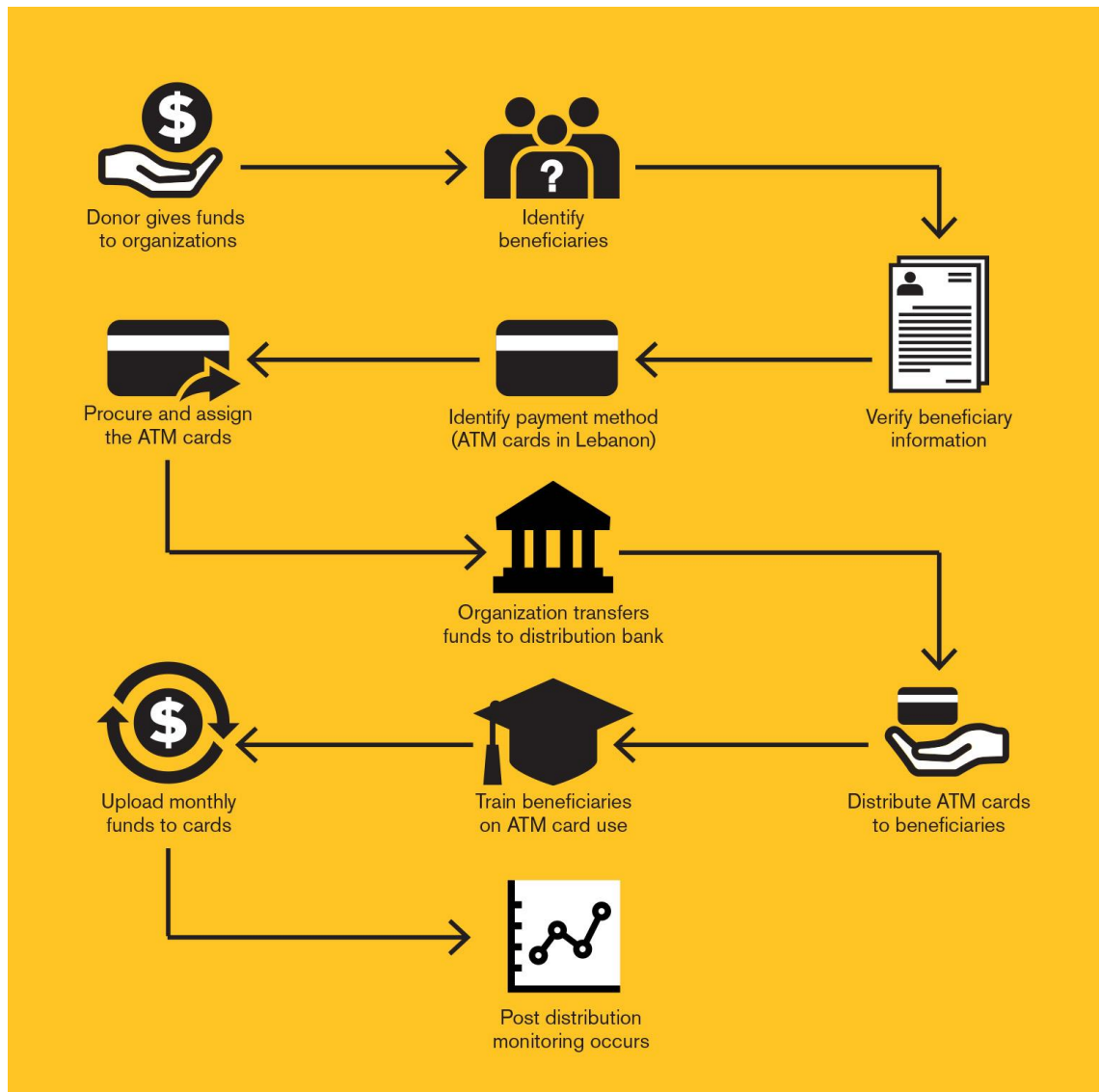
⁴ <http://www.unhcr.org/pages/49e486a76.html>, Afghanistan has more refugees outside the country borders, but if we include IDPs Syria is the largest.

⁵ UNHCR and UNOCHA as of 31 Jul 2014

⁶ <http://data.unhcr.org/syrianrefugees/country.php?id=122>

⁷ Plans have been drafted by UNHCR with the GOL for possible camps, but there is no official authorization and timing for such camps remains uncertain.

1.2 Description of the Winterization Cash Transfer Program



Starting in November 2013, an inter-agency winterization⁸ program began providing around 60 percent of all refugees from Syria (including Palestinians), Lebanese returnees, and some vulnerable Lebanese families with cash; tools for improving shelters; non-food items (NFI), such as blankets, children’s clothing, and stoves; and heating fuel. This report studies the impact of the cash transfer component.⁹ The cash program transferred cash to about 87,700 Syrian refugee families (in Lebanon) intended for the purchase of heating supplies.¹⁰ The goal of winterization was to help beneficiaries stay warm, dry, and healthy during the cold, wet winter months. Eligibility for the

⁸ By “winterization” the humanitarian community intends the process of assisting beneficiaries in staying warm, dry, and healthy during winter months.

⁹ UNHCR operated more than half of the cash assistance. According to UNHCR’s Winterization Partner Coordination Map (December 2013) implementing and operational partners included: ACTED, AMURT, AVSI, CARE, Caritas, CISP, DRC, Handicap International, Humedica, IOCC, IOM, Makhzoumi, MEDAIR, Mercy Corps, NRC, Oxfam, Save the Children, SHEILD, SIF, Solidar Suisse, and World Vision.

¹⁰ All aspects of the winterization program assisted about 96,700 vulnerable families of various targeted groups (Syrians, Palestinian Refugees from Syria, Lebanese returnees and vulnerable hosts). Around 87,700 received Cash through ATM cards, checks or Liban post, while around 9,000 received fuel vouchers. In addition, 21,000 households received one-off in-kind winterization assistance.

program was determined by a geographic criterion (refugees residing above 500-meters altitude were eligible) as well as demographic criteria.¹¹

The winterization cash program entitled eligible households to receive:

1. November 2013
220,000 LBP (\$147 USD, calculated as contributions for heating fuel [~\$100] and a stove [~\$50]);¹²
2. Dec 2013 – March 2014, approximately monthly
160,000 LBP (\$107 USD, totaling \$428 USD over four months) based on the amount calculated for heating fuel.

Each eligible household was notified via SMS that they were eligible to receive an ATM card at a distribution point. The head of household could pick up the card and receive a pin number. Beneficiaries were notified by SMS message when UNHCR and implementing and operational partners transferred cash to the ATM card. Eligible households could withdraw the money at any ATM. Anyone who had the card and pin could withdraw the money.

Although UNHCR and the implementing and operational partners generally told beneficiaries that the cash assistance was intended for the purchase of heating supplies, there were no restrictions on beneficiary expenditure.¹³ Therefore, beneficiaries could spend received cash as they wished.

All registered refugees with the vulnerability score above the cutoff received WFP food assistance through e-vouchers that they can use to buy food at specific stores. All survey respondents (both treatment and control groups) received the e-voucher. The monthly value of the food e-voucher was \$30 USD per person.

Overall, from January 2014 to March 2014 (excluding November and December 2013), the winterization program in Lebanon disbursed \$41.4 million USD to 87,700 recipients.

1.3 Beneficiary Selection

Based on the 2013 WFP-led Vulnerability Assessment of Syrian Refugees in Lebanon (VASyR), it was calculated that 72 percent of registered Syrian refugees were in need of assistance.¹⁴ UNHCR and WFP calculated demographic criteria to select 72 percent of the population for assistance. Specifically for the winterization cash transfer program, inter-agency funding could cover transfers for 87,700 households. To target this share of the population, UNHCR used the same demographic criteria and selected all eligible individuals at or above 500 meters altitude. To define the altitude criterion, UNHCR used the highest point within each town as the altitude for all households within

¹¹ Additionally, families living in “inadequate shelter” were targeted regardless of altitude. Because we surveyed households living between 450 and 500 meters, households living in inadequate shelter and informal settlements are rare in our sample. The vast majority of informal settlements are located near the sea (low altitudes) or in the east (high altitudes). The demographic criteria calculated a vulnerability score based on a weighted sum of the number of: children ages 0-2, children ages 3-4, children ages 5-12, children ages 13-15, children ages 16-18, able bodied adult males 18-59, disabled individuals in household, adults 51-61, adult dependents 61-70, adult dependents 71+, adult females 18-22, adult males 18-22, Children at Risk of not attending school. “Severe vulnerability” status was given to households that were elderly headed (HH size ≥ 2 and only one adult ≥ 59); only one non-dependent adult in household (HH size ≥ 2 and only one 18-59 year old in household); families with two or more disabled in the family (HH size ≥ 2 and disabled in family ≥ 2); elderly household with one or more disabled adult (HH size ≥ 2 and disabled ≥ 1 and only 1 adult ≥ 59); Unaccompanied/separated minor; child-headed household (HH size ≥ 2 and HH members are ages between 0 and 18).

¹² Eligible families also received blankets (1 per person)

¹³ The message the beneficiaries received varied across implementing and operational partners.

¹⁴ 72 percent of the population corresponds to 68 percent of the registered cases.

that town. The burden score was calculated using biometric data available in UNHCR registration records.¹⁵

The Research Team compares households above 500 meters altitude that received cash transfers to households below 500 meters altitude that did not receive cash transfer but were very similar before the cash program. Throughout this report, in keeping with the nature of the research design, the Research Team refers to cash transfer beneficiaries as the *treatment group* and non-beneficiaries as the *control group*. To be more specific, the treatment group is composed of households that have a vulnerability score greater than or equal to the cutoff and are located at or above 500-meters altitude. They received e-vouchers and cash transfers. The control group is composed of households that have a vulnerability score greater than or equal to the cutoff but are located *below* 500-meters altitude. These households received food e-vouchers and not cash transfers. But if they had been located at or above 500-meters altitude, they would have received both e-vouchers and cash transfers.

1.4 Beneficiary Profile

Note in all sections below, for the purposes of this survey, the Research Team defines a *household* as a group of people who spend most nights under the same roof and share in financial activities like income and spending. For instance, two “households” may live under the same roof if they operate independently of each other in financial matters. The statistics below are for the beneficiaries only, i.e., the treatment group. The descriptive statistics demonstrate that the sample is similar to the general population of Syrian refugees in Lebanon but generally poorer. This makes sense because the study only sampled individuals who were classified as “vulnerable” according the burden index.

The average beneficiary household has 6.11 persons. Figure 2 presents the age distribution within beneficiary households.

Age Distribution of Beneficiary Households	
	Average number of residents ¹⁶
Below age 5	1.17
Ages 5-9	1.29
Ages 10-14	0.83
Ages 15-19	0.43
Ages 20-29	0.73
Ages 30-49	1.27
Ages 50-69	0.31
Age 70 and above	0.04

Figure 2 Age distribution within beneficiary households

¹⁵ Syrians need to be registered to be eligible for UN winterization cash assistance, the program we study in this paper. Some NGOs run separate small-scale cash programs that can include or explicitly target the unregistered.

¹⁶ These figures are rounded to two decimal points.

Forty-three percent of beneficiaries in the sample live in a rented house, 36.6 percent in a rented apartment, 6.6 percent live in an unfinished shelter, and 5.1 percent in a garage or magasin.¹⁷

Thirty-seven percent of beneficiary households have an oven in their home and 69.8 percent have a heater. Beneficiary households have on average 4.9 blankets and 2.4 winter jackets. 52.8 percent have a fridge and 12.9 percent have a freezer. 2.6 percent have a car and 8.3 percent have a motorbike. 91.6 percent of households have a cell phone and 77 percent have a TV.¹⁸



16.1 percent of household heads have never attended school, 19.8 percent have completed primary school, 28.3 percent have completed high school, and 26.4 percent have completed secondary school. 7 percent have attended a technical school and 0.7 percent have a university degree. Household heads were self-identified and 84.3 percent of primary respondents are male. But the spouse was present in 34.5 percent of interviews.

With regard to health, beneficiaries report having been sick on average 2.6 days in the past four weeks.

Twenty-three percent of adults report working at least one day during the past four weeks and, among those, the average number of days worked was 11.7 days. Beneficiaries report low incomes, although reported cash income underestimates real income because respondents may have an incentive to underreport earnings. The Research Team notes that some economic activities may not require the exchange of currency, such as work for housing. Average household labor income of beneficiaries is about \$140 USD per month. 99 percent of beneficiary households reported zero savings. 77.4 percent of adult beneficiaries report zero working days during the past four weeks, which shows how scarce employment opportunities are for refugees in Lebanon.

49.88 percent of beneficiary households in the sample are “very highly vulnerable”, 17.11 percent are “highly vulnerable”, 12.47 percent are “borderline”, and 20.54 percent are “least vulnerable”, where vulnerability is defined as:

- Very highly vulnerable: Below Simple Minimum Expenditure Basket (SMEB, \$88 USD household per capita expenditure)
- Highly vulnerable: Between SMEB (\$88 USD household per capita expenditure) and Minimum Expenditure Basket (MEB, \$114 USD household per capita expenditure)
- Borderline: 100 percent-125 percent of MEB
- Least vulnerable: 125 percent + of MEB

¹⁷ These numbers refer to beneficiary households, which were residing between 500-meters and 550-meters altitude in November 2013, and may be different in other altitudes. We had few informal settlements (ISs) in our sample because most ISs are near the coast (low altitudes) or in the east (high altitudes). In general, these data are similar to other datasets but with fewer people in collective housing.

¹⁸ These assets statistics show that respondents are similar to the general refugee population but slightly poorer.

2.0 Scientific Background for the Study

Over the last decade, conditional cash transfer (CCT) programs have become popular policy in developing countries to improve short-term wellbeing and foster long-term development.¹⁹

In some programs, poor families receive money conditional on investments in human capital, such as sending children to school or bringing them to health centers on a regular basis. In other cases, cash grants need to be invested in income-generating activities, for example as start-up capital for micro-enterprises. Fiszbein and Schady (2009) report statistics on the coverage of CCT programs: In terms of absolute coverage, CCTs range from 11 million families (Brazil) to 215,000 households (Chile) to pilot programs with a few thousand families (Kenya, Nicaragua). In terms of relative coverage, they range from approximately 40 percent of the population (Ecuador) to about 20 percent (Brazil, Mexico) to 1 percent (Cambodia). In terms of budget, the costs range from about 0.50 percent of gross domestic product (GDP) in countries such as Brazil, Ecuador, and Mexico to 0.08 percent of GDP (Chile). CCTs have expanded at a fast pace in the last decade. Not only has the number of countries with CCT programs increased, but also the size of many programs. Mexico's Progresa launched with about 300,000 beneficiary households in 1997 and now covers over 5 million households. Brazil's Bolsa Escola program was initially only implemented in Brasilia and the municipality of Campinas. Sequentially adopted by other local governments, the Bolsa Escola successor Bolsa Familia today serves 11 million families (46 million people) in Brazil. Colombia's cash transfer program Familias en Accion initially targeted 400,000 households, but it then expanded to cover 1.5 million beneficiary households by 2007. Almost all CCT programs target their benefits to the poorest households, administering higher shares of benefits to the lower end of the income distribution. Among the big, well-known programs, Mexico's Progresa delivers more than 45 percent of benefits to the poorest decile. Next in line are Chile and Jamaica with approximately 35-40 percent of benefits to their poorest deciles. Mexico's, Brazil's and Ecuador's CCT programs cover more than 60 percent of the poorest decile of their population. There is significant variation in the size of cash transfers across programs, from about 1 percent of pre-transfer household expenditures in Bangladesh to 29 percent in Nicaragua. In the case of Mexico's Progresa, the transfer represents 33 percent of the pre-transfer level of household consumption among households in the bottom quartile.

Researchers have devoted much attention to studying the impact of conditional cash transfers. For example, cash transfers in Brazil led to an increase of 7 percent in consumption. Similar magnitudes are found in Honduras and Mexico. In Nicaragua, the effect is as high as 30 percent. Poverty (as measured by the headcount index) fell by 3 percentage points in Colombia, 2 percentage points in Mexico, and 7 percentage points in Nicaragua. Furthermore, CCTs have led to significant increases in school enrollment rates. Glewwe and Olinto (2004), Maluccio and Flores (2005), Skoufias (2005), and Attanasio et al. (2005) find an increase in primary school enrollment from 75 percent in the control group to 93 percent in the treatment group in Nicaragua and from 82 percent to 85 percent in Honduras; an increase in secondary school enrollment from 70 percent to 78 percent in Mexico and from 64 percent to 77 percent in Colombia; a decrease in school drop-out rates from 13 percent to 9 percent in Mexico, from 7 percent to 2 percent in Nicaragua and from 9 percent to 5 percent in Honduras; a decrease in grade repetition from 37 percent to 33 percent in Mexico and from 18 percent to 13 percent in Honduras. Some evaluations have found that CCTs contributed to improvements in child height among some population groups. Furthermore, there is evidence that program beneficiaries have better health status and that CCTs improve cognitive development in early childhood (Macours et al. (2008); Paxson and Schady (2010)).

¹⁹ This study is a causal-inference impact evaluation and not a program analysis. As such, we largely focus the literature review on other causal-inference impact evaluations and not the wealth of high-quality program analyses that have been conducted on cash programs around the world.

Until now causal-inference research on CCTs and unconditional cash transfer programs (UCTs) have been largely confined to long-term poverty relief and development projects, rather than refugee settings and humanitarian aid. This is likely because cash transfer programs are still predominantly used in the livelihoods and food security sectors. Although cash transfer programs have been implemented in larger emergency responses since 2010, to date the majority of cash programs in emergencies have been small-scale (the Cash Learning Partnership, 2014).²⁰ To the author's



A beneficiary of cash assistance in Lebanon holds medications she was able to purchase for her and her husband.

knowledge, this is the first study to rigorously compare refugees receiving cash to those not receiving cash, which makes it possible to quantify the causal impact of cash assistance.

In addition to demonstrating the benefits of cash aid, this study found no evidence of a number of hypothesized negative consequences of cash assistance. Evidence does not show that beneficiaries spend their cash irresponsibly, that recipients meaningfully reduce labor supply, or that cash exacerbates corruption and exploitation.²¹ While it is possible that negative consequences of cash aid arise in certain circumstances, the research shows that, on average, this does not occur. The wide range of evidence cited in footnote

21 suggests that negative consequences are rare for different types of programs (with different durations and amounts) and different settings (Mexico, Nicaragua, Honduras, Kenya, Lebanon).

A large injection of cash may have adverse effects on prices and local markets.²² However, proponents of cash suggest that cash may have little effect on food prices and supplies in an open economy like Lebanon's.²³ In fact, the influx of cash may even stimulate local production. Economic theory would predict that only certain goods where supply is relatively inelastic, like the supply of housing, would be likely to witness inflationary pressure. As discussed in the analysis below, the Research Team finds that markets are able to provide sufficient quantities of the goods and services that beneficiaries demand. The program did not have a meaningful impact on prices, including rent. Across approximately 50 consumer goods, the study observed no meaningful trend toward higher prices in treatment communities.

This research suggests that cash beneficiaries use their money responsibly for essential purchases. Some argue that the poor allocate their resources efficiently due to their financial constraints.²⁴ Given this logic, studying the ways that beneficiaries spend their cash aid will provide valuable insight into the needs of beneficiary communities.

Cash transfers can be more cost-effective than in-kind programs. Unfortunately, this study does not address the added cost-effectiveness of this particular cash transfer program over alternative uses

²⁰ <http://www.cashlearning.org/resources/library/430-a-review-of-cash-transfer-programming-and-the-cash-learning-partnership-calp-20052015-and-beyond>

²¹ This is in line with existing empirical evidence. Cunha (2013) does not find evidence that cash recipients in Mexico spend cash irresponsibly. Alzua et al (2013) find that cash transfer programs in Mexico, Nicaragua, and Honduras do generate substantial reductions in labor supply of beneficiaries. In Kenya, Haushofer and Shapiro 2013 find no evidence of village-wide impacts of cash transfers on prices, wages, or crime. Furthermore, although cash may be easy for corrupt officials or armed groups to capture and exploit, a wealth of evidence suggests that these actors already capture in-kind aid. Recent research argues that food aid can prolong wars when warring groups profit from capturing aid supplies (Nunn and Qiang, 2014).

²² For instance, in Mexico Cunha et al. 2011 find that in-kind transfers lead to lower local prices (by increasing supply) whereas cash transfers have a null effect on prices.

²³ Blattman and Niehaus, Foreign Policy, May/June 2014.

²⁴ Duflo 2006

for the funding. Also, because agencies were simultaneously running many non-cash programs, including the WFP e-voucher program and others, it is likely that many of the savings opportunities that come with reduced administrative costs would not be realized. Previous studies have documented 15 percent savings from switching to cash transfer programming, Hoddinott et al. (2014) and Hidrobo et al. (2014). In these studies, the implementing agencies were simultaneously running a food program and a cash program. As such, the full savings potential of cash was probably not realized.

Despite the advantages of cash, it will not be the solution to every problem in a crisis setting. Research and theory suggest that certain problems will be better addressed by in-kind aid than by cash. This is most notably illustrated with the provision of public goods and goods that are inaccessible or scarce in the market. Preventive measures to fight health problems, a public good, may be best approached by providing people with items they would not buy on their own, such as soap for hand-washing or vaccines for children. These are examples of goods where the private cost may be greater than the private benefit, which would lead individuals to spend their money on goods with greater private benefits, such as food or shelter. But the collective benefit of these goods is greater than the collective cost, which is what makes efforts to promote widespread hand washing and successful vaccination so important. Also, cash will not address beneficiary needs well if they cannot buy a good in the market. This is why cash programs work best in functioning open markets where goods and capital can move freely.

3.0 Impact Evaluation Design

Randomized control trials (RCTs) and research designs that approximate them are important tools for social science and program evaluation. These designs enable social scientists to draw valid inferences about cause and effect.

The essential ingredient of rigorous research designs is random (or as-if random) assignment of people to treatment and control groups. People assigned to the treatment group are then given a 'treatment' such as a cash transfer program, while the control group is not. Where random assignments are possible, treatment and control group are virtually identical prior to the start of the program. Differences between treatment and control group after the start of the program measure the causal impact of the program.

In situations where random assignment is not possible, one can use research designs that *approximate* random assignment. For the impact analysis of the winterization cash transfer program, the Research Team uses a Regression Discontinuity design that exploits the targeting approach of the cash assistance program itself. Cash was given at high altitudes to target assistance for those living in the coldest areas during the winter months.²⁵ Households did not know beforehand that there would be an altitude eligibility cutoff. When the eligibility cutoff was set at 500 meters, households residing at, for example, 501 meters were included, while households residing at, for instance, 499 meters were not.

In order to evaluate the program's impact, the study compares outcomes of beneficiaries residing slightly above 500 meters (treatment group) to non-beneficiaries residing slightly below (control group). In other words, the study compares households residing slightly below 500 meters that did not receive cash (but would have received it if they had been residing above 500 meters) with households residing slightly above 500 meters that did receive cash (but would not have received it if

²⁵ Altitude was used to target those living in the coldest areas. 500 meters specifically was chosen, instead of 501 or 502, because it is an easy-to-remember multiple of 100. This further emphasizes the as-if random nature of the altitude cutoff, which allows us to make inferences about the effect of aid by comparing recipients to non-recipients with similar vulnerability scores.

they had been residing below 500 meters). The same demographic criteria were used at all altitudes to calculate vulnerability. Therefore the study is comparing households that are similar in their vulnerability scores and only slightly different in altitude.

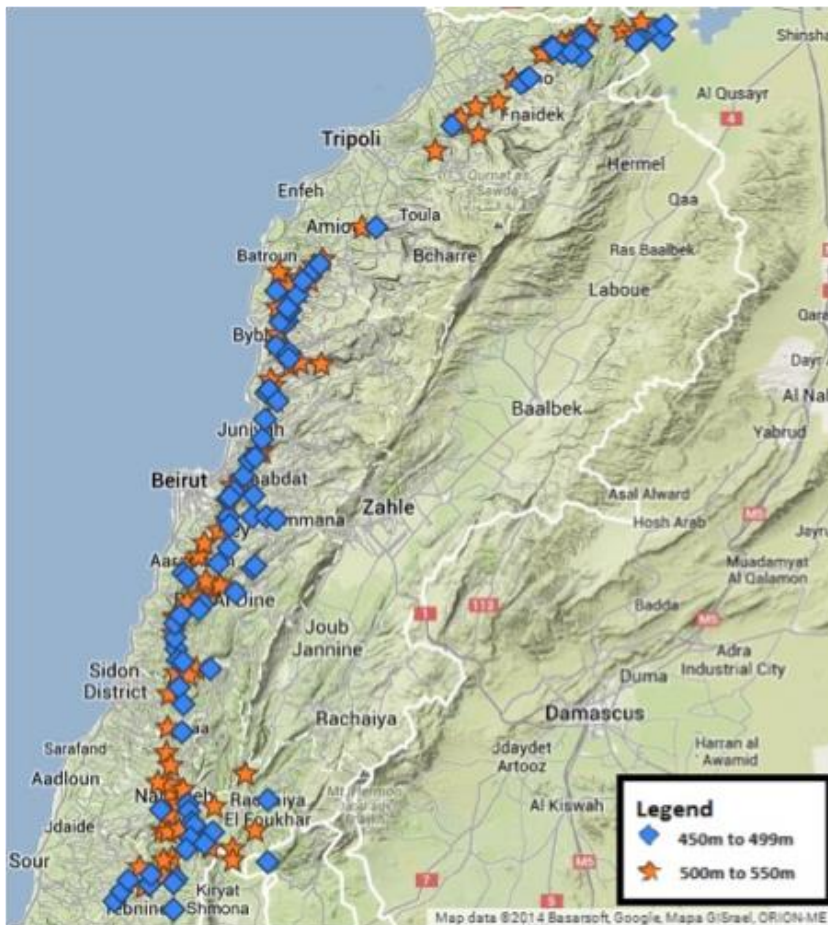


Figure 3. Research sites for survey

when the winterization program began. Respondents who researchers could contact were surveyed wherever they were currently living. In November 2013, when the program began, survey respondents lived in 15 of Lebanon’s 25 districts (*aqdia*).²⁷ Due to the fact that beneficiaries moved between the beginning and end of the program, the Research Team conducted interviews in all 25 districts.

Through a competitive sealed-envelope bidding process, a survey firm named Information International (hereinafter, the Survey Firm) was hired to interview these households in April and May 2014, directly after the end of the five-month program.²⁸ The household survey measured household expenditure and winter-related asset holdings, among others. The Survey Firm was able to interview 1360 of these 1789 households (633 in the treatment group and 727 in the control group), which provided a 76.5 percent response rate in the treatment group and 75.5 percent response rate in the

In this report, the Research Team refers to a household as belonging to the ‘control group’ if it did not receive cash assistance because it resides above 450 meters yet below 500 meters, but would have received cash assistance had it been residing above 500 meters. And it refers to a household as belonging to the ‘treatment group’ if it received cash because it resides above 500 meters yet below 550 meters, but would not have received cash had it been residing below 500 meters. According to UNHCR refugee registration records, there are 827 households in the treatment group and 962 households in the control group, i.e., 1789 households in total, within the window of analysis (450 meters to 550 meters altitude).²⁶ This includes only households that had a vulnerability score above the eligibility cutoff.

Because of Lebanon’s topography, the distribution of registered Syrian households living between 450 and 550 meters covers nearly the entire country, running from the north in Akkar to the south in Bint Jbeil.

Figure 3 illustrates the location of all towns where survey respondents lived at the time

²⁶ As mentioned above, UNHCR used the highest altitude point within each town as the altitude for all households within that town.

²⁷ Chouf, El Meten , Aley, Keswane, El Nabatieh, Jbeil, Akkar, El Minieh-Dennie, El Koura, El Batroun, Bent Jbeil, Sour, Marjaayoun, Hasbaya, Jezzine.

²⁸ The final cash transfer, the “March Cycle,” was distributed on April 24, 2014. The first day of survey conduct was April 25, 2014.

control group.²⁹ Even though the control group is larger, this does not affect the assumptions of balance and comparability between the two groups, which the study demonstrates below.³⁰

Power calculations require assumptions about the magnitude of the effects the research sought to study. By testing various possible effect magnitudes, the Research Team identified the necessary sample size to identify a true effect as somewhere between 850 and 1300. Anticipating high non-response rates, the team selected an altitude window that included 135 percent as many households as the study's power calculations required. Given this window and the observed non-response rate, the study's final sample size of 1360 satisfies the more conservative estimates to ensure sufficient statistical power.

To demonstrate the credibility of our research design, the Research Team used UNHCR's demographic data to compare pre-treatment characteristics between the treatment and control groups. Among the demographic variables that were available, 21 of 24 variables are balanced. Therefore, prior to the start of the program, households in treatment and control group were very similar.³¹ For example, Figure 4 shows that households in treatment and control groups have, on average, the same demographic structure (i.e., same number of children, teenagers, adults) prior the start of the program.³²

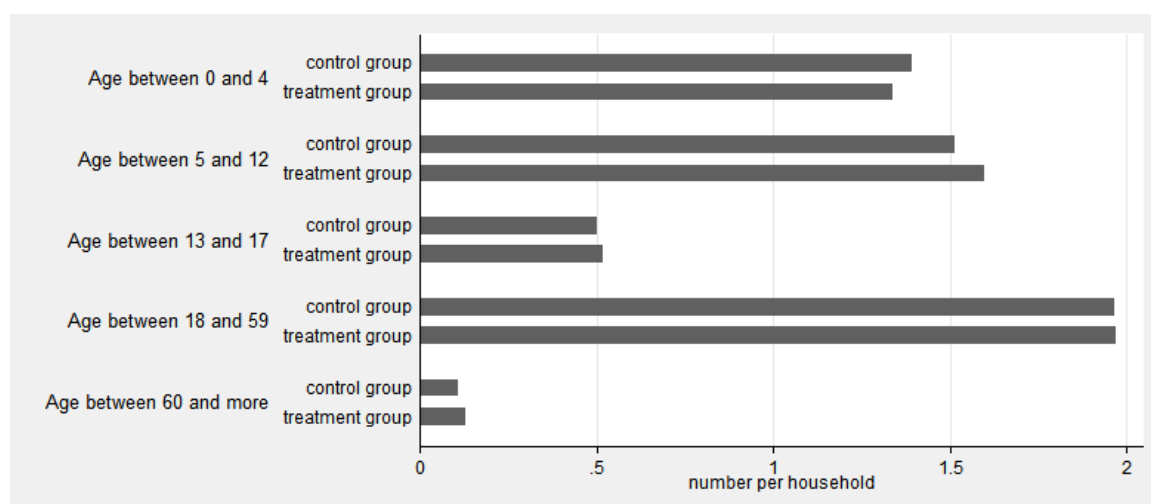


Figure 4 Demographic characteristics of treatment and control group prior to the start of the program

²⁹ As discussed later in the report, the final sample size of 1360 satisfies the more conservative estimates to ensure sufficient statistical power.

³⁰ The population for this study (i.e., our intention-to-treat analysis) is registered Syrian households that met the demographic and geographic criteria specified above. There were 1851 individual who met these criteria in November 2013. The team surveyed 1361 of them. The remaining 490 were not interviewed because of attrition (e.g., inaccurate contact information available with UNHCR, they moved back to Syria, or refused to be interviewed [62 were no longer registered with UNHCR when we started our survey, 63 households refused to be interview, 322 could not be contacted over the phone (number closed, no answer, and wrong number), and the remainder had moved and could not be reached.]). When the researchers started data collection 62 households had left UNHCR's database, leaving 1789 households in our sample. Given 1361 complete interviews, the study had attrition rates of 24-26 percent depending on which calculation you use, which includes a 3.5% refusal rate.

³¹ Balance means that differences are not statistically significant (all p-values are above 0.1). The number of residents of every age group was balanced between treatment and control groups. This reveals that households in treatment and control groups had, on average, the same demographic structure (i.e., same number of children, teenagers, adults) prior the start of the program. The population of the towns where respondents lived was balanced. Education levels for household members above 30 were also balanced. The Research Team subsetted on age because this was measured post-treatment, and we want to only consider people old enough that receiving cash would not have an effect on their education levels. The number of disabled and non-disabled individuals in households within age groups was also balanced, except for three categories. We found imbalance in "Males not disabled ages 51 – 59", "(both genders) Disabled ages 13 – 15", and "(both genders) Disabled ages 16 – 17". The differences are small in absolute terms.

³² Displayed differences are not statistically significant (p-values are above 0.1)

If treatment and control group have similar characteristics prior to the start of the program, then any difference after the start (e.g., in the April/May household survey) measures the program's causal impact. All other aid programs were equally distributed between the two groups. For instance, all registered refugees with the vulnerability score above the cutoff received food assistance through e-vouchers that they can use to buy food at specific stores. Thus all respondents in the sample received e-vouchers, but only those who were living above 500 meters in November 2013 received cash aid.³³

This research design is a key contribution to research on Syrian refugees in Lebanon, and more generally to research on the impacts of cash aid to refugees in a humanitarian crisis. This is the first study, to the researchers' knowledge, that rigorously compares refugees receiving cash to those not receiving cash, which makes it possible to quantify the causal impact of cash assistance.

A limitation of this research design, however, is that results will not be representative of all beneficiaries of the winterization cash transfer program. Results will only be representative for those who have characteristics like those residing around 500 meters. This is an inevitable trade-off. One can only measure a causal effect if one has a control group that, prior to the start of the program, has similar characteristics to the treatment group. This is only the case around the 500-meter altitude cutoff.

4.0 Data Collection in April and May 2014

4.1 Household Questionnaire

The questionnaire consisted of 226 questions. The primary respondent in each household was the person mainly responsible for how the household spends its money. An interview took about one hour. The research team began developing the questionnaire in February 2014, drawing from previous surveys, when possible. A town-level stratified random sample of households was asked 81 additional questions on local prices and market characteristics.³⁴

4.2 Translation & Pre-testing

The survey questionnaire was translated from English to Arabic by the Survey Firm. The initial Arabic version was translated back into English by IRC staff, who had not seen the initial English version of the survey. After review, revisions were sent to the Survey Company. The Research Manager reviewed the new Arabic version of the survey to verify that all requested changes had been made.

There were two stages of pre-testing. The Research Manager and two IRC staff members conducted a one-day, four-household pretest in Halba, Akkar. After enumerator training (discussed below), the Survey Firm ran a pilot test, including ten pilot surveys, eight in Khirbat Daoud, Akkar and two in Al Bourjein, Chouf. The Survey Firm submitted a pilot report to IRC and the survey questionnaire was revised.

4.3 Stakeholder Feedback

IRC sent the questionnaire to the members of the Cash Working Group in Lebanon, which consists of representatives of non-governmental and UN organizations, for feedback. IRC received helpful feedback from staff of UNHCR, UNICEF, DRC, Save the Children, ACF International, and ECHO. The Research Team incorporated the suggestions to the greatest extent possible.

4.4 Enumerator Recruitment & Training

The Survey Firm used enumerators from its survey staff, who all received training in general survey methods when they began work with the Survey Firm. The Research Manager and a manager from

³³ The research design allows confident statements that the cash transfer *caused* the difference in outcomes between the treatment and control group and about the scale of the difference. *How* the cash caused a difference in a particular outcome is a different – and very challenging – research question about causal mediators and causal pathways that could require a research project to study causal pathways for each outcome.

³⁴ The town-level stratified sample selected up to four respondents in each village. If a village had four or fewer respondents from our full sample, then all households in that village were interviewed.

the Survey Firm conducted two working days of training with the enumerators from each region. By training with each region's staff individually, the Research Manager had more opportunity for direct communication with the enumerators to ensure thorough understanding of the project and the survey questionnaire. Training stressed the precise meaning of the concepts, given the complexity of some of the items. By doing so, the Research Team augmented consistency in survey enumeration, including not only the written script but also the presentation of examples and the appropriate responses to respondents' questions. The stress placed on consistency was founded on previous studies' findings that small changes in protocols and enumerator behavior can result in large changes to respondents' behavior.

4.5 Survey Implementation and Logistics

The survey was administered in April and May 2014, beginning about five months after the start of the program and one day after the program's final cash transfer. The Survey Firm and the Research Manager led data collection. The Research Manager spent more than 20 days in the field and sat in on more than 80 interviews. Before each day of data collection, the Survey Firm called the local Ministry of the Interior office (*al-baladiyya*) and also checked in upon arrival to confirm permissions.

Most households were contacted via phone prior to the interviews. The Survey Firm attempted to locate any households who could not be contacted by phone upon arriving on site.³⁵

Enumerators worked in pairs, with one conversing and reading and the second writing. Enumerators collected the data using anonymous paper-and-pencil interviewing. On average, survey teams conducted five interviews per day. Usually, other people were present in interviews including friends, family, and neighbors. Most living spaces are small with only one area to sit – often on the beds.

As is standard survey procedure and in keeping with Yale University's human subjects guidelines, during the informed consent process, enumerators informed all participants that they could refuse to answer any question and they could end the interview at any point with absolutely no consequences.

4.6 Auditors

IRC hired auditors to confirm the quality of data collection and data. First, auditors accompanied data collection teams in the field each Wednesday to ensure that enumerators maintained high standards of work. Second, auditors called 371 households to confirm the quality of survey work.

4.7 Data Entry

The Survey Firm used a Microsoft Access form for data entry. The form was constructed in partnership between the Research Manager and the Survey Firm. The form had logical rules and checks to catch and minimize data entry errors (by enumerators or data entry staff). Logical rules automatically followed skip patterns for data entry. If illogical responses were recorded on the survey form itself the Survey Firm would call the household to confirm survey responses.

4.8 Problems and Concerns

Respondents may provide enumerators with inaccurate information if they believe that the survey constitutes a reassessment of their household's need. The Research Team took two steps to reduce this bias. First, enumerators were trained to emphasize that the survey is not a household-level needs assessment. The enumerators read text both at the beginning and in the middle of the survey that stated, "The following survey is not being used to re-assess your household's need for aid. Your answers will not be used to re-determine your household's amount of aid." Second, during data entry, the Survey Firm flagged illogical responses and called the house again to confirm or improve responses. For instance, if a household reported that total spending was \$200 USD per month but then later said they spend \$250 USD per month on food, the Survey Firm would make a verification

³⁵ 1861 individuals met the selection criteria in November 2013 at the beginning of the program. By the time the researchers sought respondents for the survey in April 2014, 62 households were no longer present in UNHCR data. So when surveying began, there were 1789 households in the sample. Given 1361 complete interviews, the study had attrition rates of 24-26 percent depending on which calculation you use.

call. Errors may also be caused by enumerator error, so the phone calls served as an important component of quality control.

5.0 Impacts of the Winter Cash Transfer Program

5.1 Impacts on receiving households

1. HOW DO HOUSEHOLDS SPEND THE CASH ASSISTANCE?



Figure 5 displays winter-related asset holdings. Households in the treatment group are significantly more likely to own an oven and heater. There was no evidence of a difference in owning blankets, winter jackets, or gloves. This suggests that **beneficiaries use part of the cash assistance to purchase these winter items.**³⁶

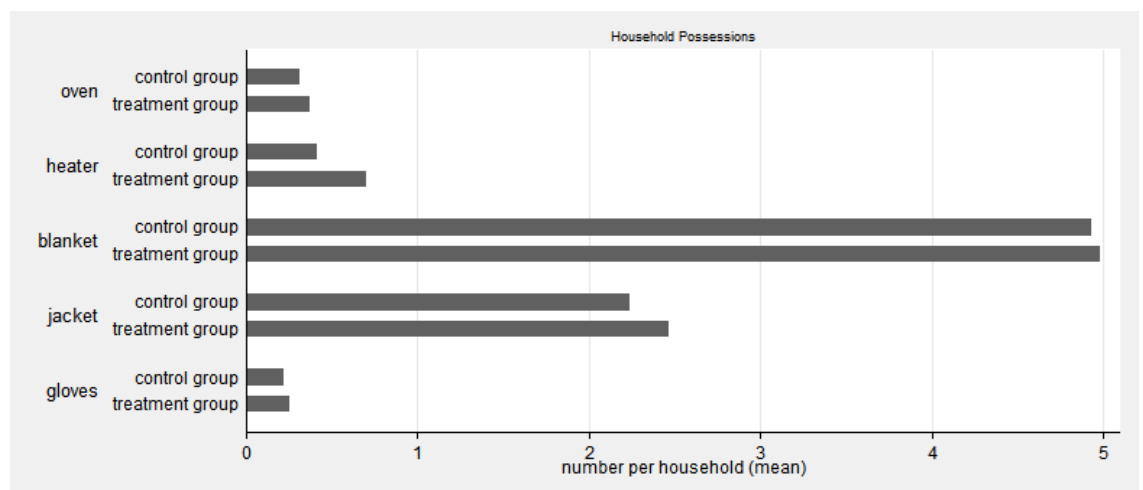


Figure 5 Impact on winter-related asset holdings

Figure 6 shows household expenditure for heating fuel over the past 30 days. Households in the treatment group spend on average \$6 USD more on heating fuel than households in the control

³⁶ All respondent households received one blanket per person in November 2013, which explains the high number of blankets and the lack of any significant difference between treatment and control group. P-value=0.06 for oven, P-value < 0.001 for heater, P-value=0.78 for blanket, P-value=0.18 for jacket, P-value=0.56 for gloves. P-values indicate whether the data is consistent with the null hypothesis that the cash program had no effect. Small P-values indicate that the data would be highly unlikely if the null-hypothesis were true. In the text differences between treatment and control group are called "statistically significant" if the P-value is smaller than 0.10.

group.³⁷ The figure also displays expenditure for clothing. Households in the treatment group spent \$4 USD more on clothing over the past 30 days compared to the control group.³⁸ Both of these are statistically significant differences.

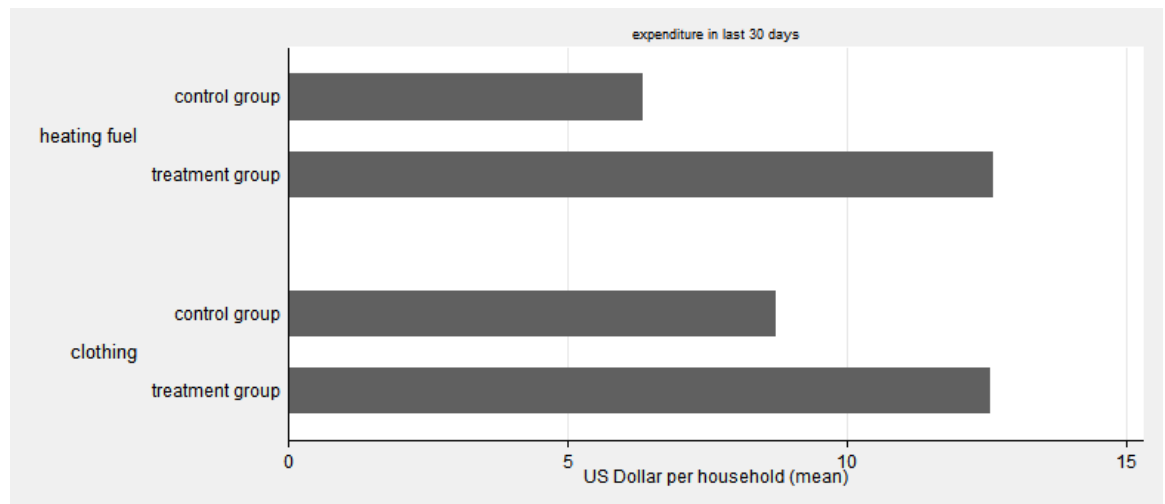


Figure 6 Impact on winter-related expenditure

Considering that a beneficiary household receives about \$100 USD cash assistance per month, this suggests that \$10 USD of the \$100 USD cash assistance is spent on heating fuel and clothing. Figure 7 reveals that the majority of cash assistance is spent on food and water despite the fact that recipients received food e-vouchers from WFP. Treatment group households spend on average \$24.71 USD more per month (significantly more) on food and water than control group households.³⁹

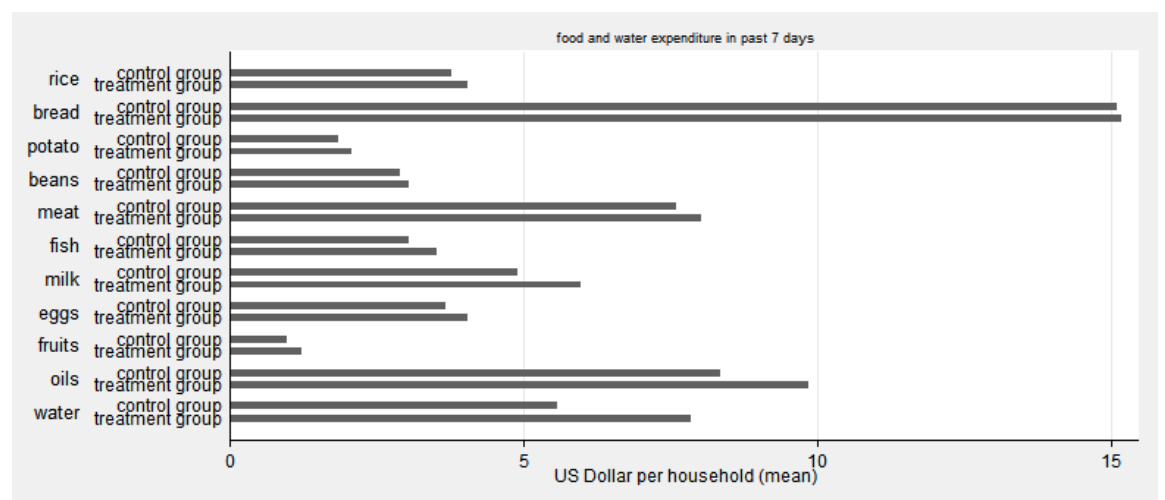


Figure 7 Impact on expenditure for food and water

Does this mean that households need less than \$100 USD per month to keep warm? The answer is no. Figure 8 reveals that, despite cash assistance, still some 45 percent of households in the treatment group report that heating supplies were often not enough to keep warm. Although this is significantly less than in the control group (a 22 percentage point decrease from 67 percent in the control group), it indicates that a large number of households were still unable to keep warm despite cash assistance.⁴⁰ Furthermore, there is no difference in the number of sick days between treatment

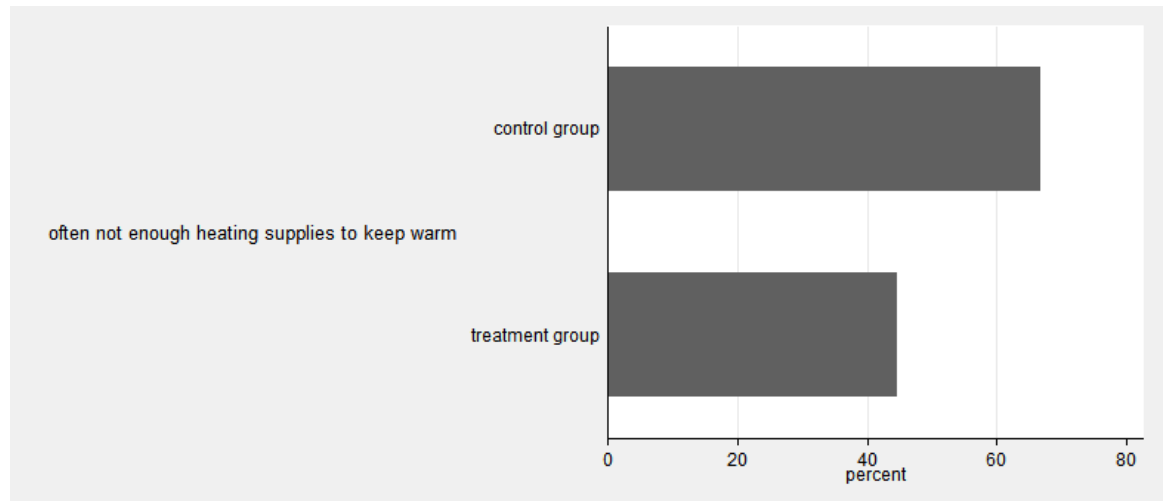
³⁷ P-value < 0.001

³⁸ P-value=0.01. We'll show in the next section that the difference in expenditure is not driven by an increase in prices.

³⁹ P-value < 0.001

⁴⁰ P-value < 0.001

and control group, suggesting that cash assistance was not large enough to generate substantial



health improvements.

Figure 8 Impact on being able to keep warm

How is it possible that beneficiaries decide not to spend the entire amount of received cash assistance on heating supplies, but still report that heating supplies were often not enough to keep warm? It is *not* due to lack of heating supplies in stores and in the market in general. Surveys asked, “Were there times where you could not buy heating supplies even though you wanted to buy and had the money, for example because you could not find a seller, or the seller was too far away, or the seller was out of stock?” Less than one percent of respondents answered “often.”

Beneficiaries spent a small proportion of their cash assistance on winter goods because their income and savings are so low that they are forced to use the cash partly to satisfy other more essential or immediate basic needs, in particular food and water. Figure 9 illustrates the difficulties facing beneficiary households. Average household labor income of beneficiaries is about \$140 USD per month. **Ninety-nine percent of beneficiary households reported zero savings.** Household labor income and savings are not enough to satisfy the costs of food and water because, as Figure 9 reveals, food and water expenditure alone is about \$320 USD per month, including spending from the e-vouchers (which is less than \$2 USD per day per capita given the average family size of 6.2). Households take on debt to buy food (the **average value of currently outstanding cash loans is about \$500 USD per household**). The fact that household labor income and savings are insufficient to cover the costs of food may explain why beneficiaries only use a small fraction of received cash assistance to buy heating supplies. Beneficiaries are forced to use parts of the cash assistance to satisfy basic needs like food and water.

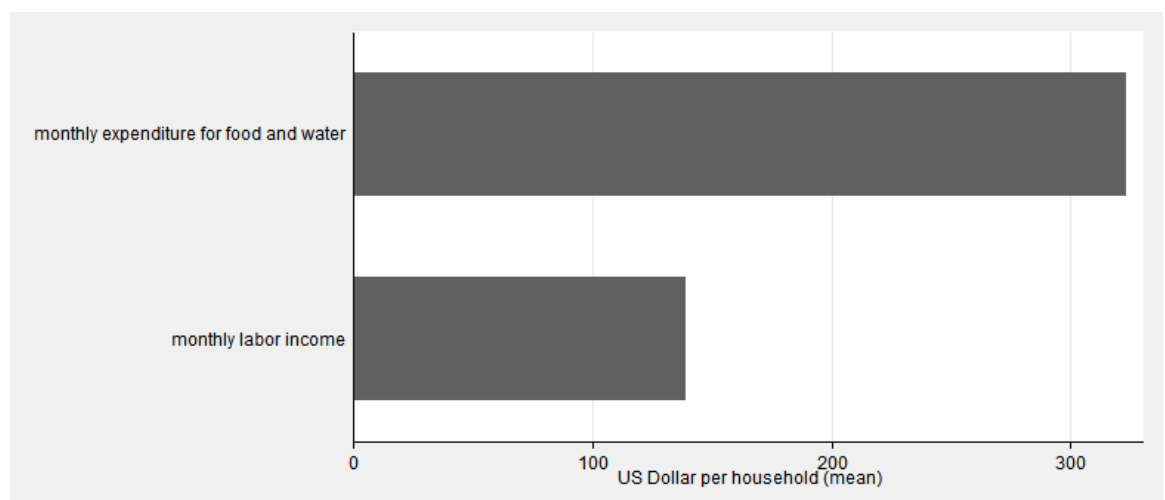


Figure 9 Treatment group's labor income versus expenditure for food and water

This implies that **cash assistance amounts would need to be increased in order to increase the number of beneficiary households who keep warm. The amount of cash assistance must be large enough to satisfy all basic needs (including food), not simply heating.** Figure 100 reveals that the majority of beneficiaries do not consider the current amount of cash assistance sufficient to ensure they are warm throughout the winter.

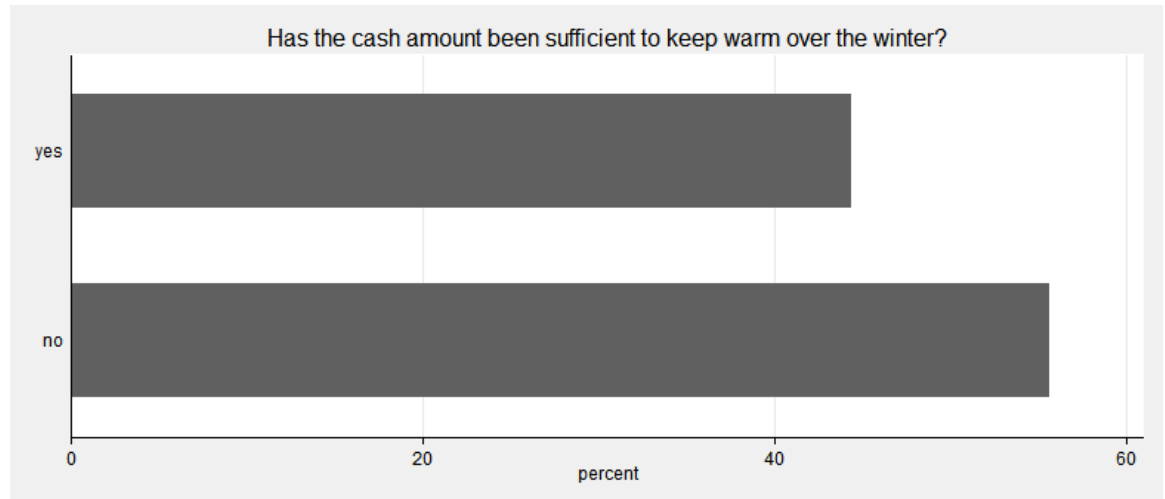


Figure 10 Do beneficiaries consider the cash amount as sufficient?

2. DOES CASH ASSISTANCE REDUCE INDEBTEDNESS?

Figure 11 shows the value of currently outstanding loans. The value of currently outstanding loans, both formal and informal, of the treatment group is on average \$500 USD per household, compared to \$513 USD in the control group.⁴¹ This difference is not statistically significant.

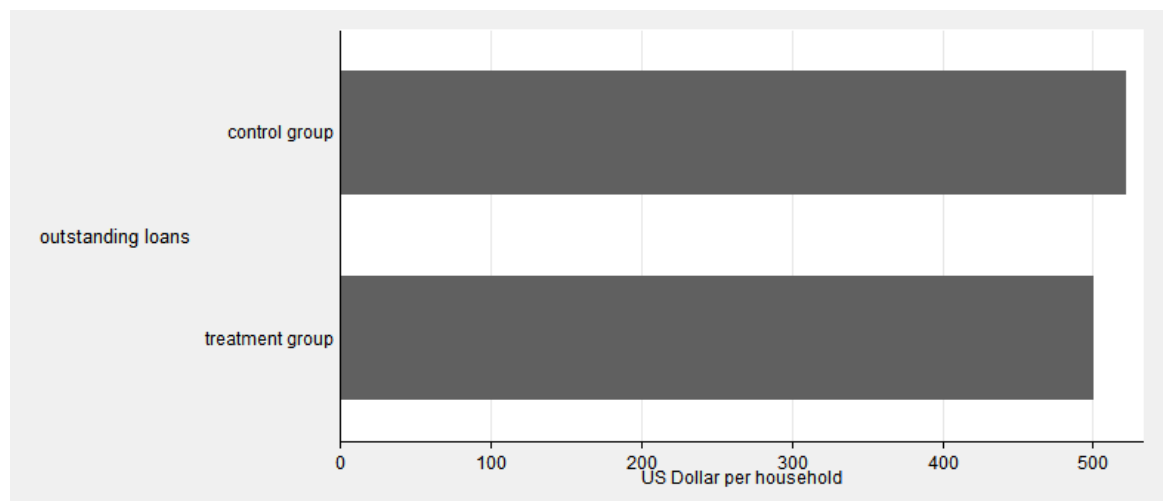


Figure 11 Impact on debt

This is consistent with evidence presented in previous sections. There, the research showed that labor income and savings are insufficient to cover the costs of food and other basic needs, and that households take on debt to finance the gap. **Even with cash, all beneficiaries still need more assistance. Cash assistance, however, narrows a household's shortfall and thus reduces the need to take out loans, but only slightly due to the relatively small size of the winterization cash transfer.**

⁴¹ P-value=0.59

3. DOES CASH ASSISTANCE DECREASE THE INCIDENCE OF NEGATIVE COPING STRATEGIES?

Figure 122 and Figure 13 display the strategies that households employed to cope with a lack of food or money.⁴² **Households in the treatment group have a lower incidence of negative coping strategies, including child labor, dangerous work, and multiple forms of dietary restriction.**⁴³

Figure 122 displays responses to the question “In the last 7 days, how many days has your household had to employ one of the following strategies to cope with a lack of food or money to buy it?” As Figure 122 shows, we observed statistically significant decreases in relying on less preferred food, reducing the number meals per day, and restricting the consumption of adults so children can eat.⁴⁴ Households in the control group rely on consuming less preferred/less expensive food during almost five of seven days. This compares to about four days in the treatment group. Furthermore, households in the control group rely more frequently on negative dietary coping strategies.

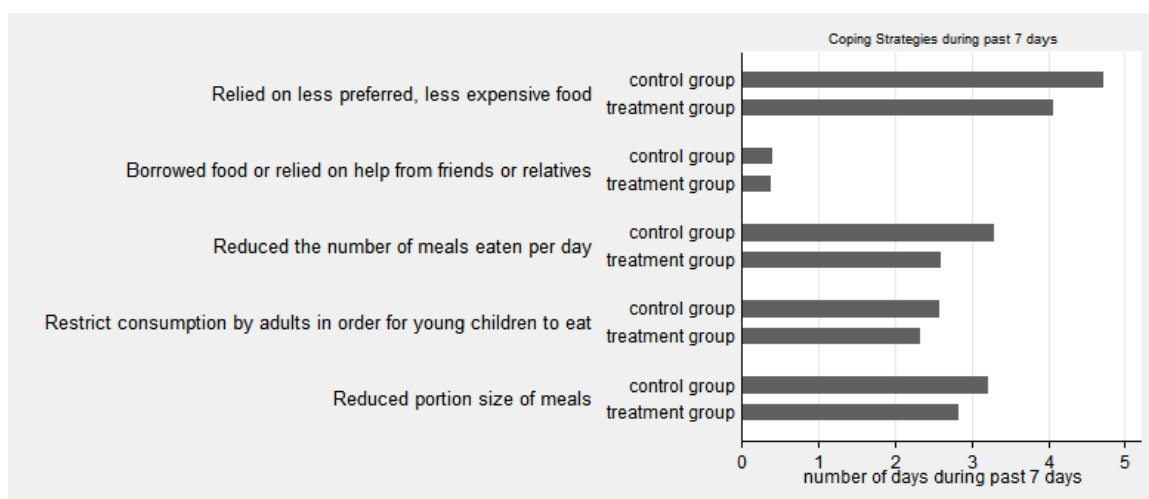


Figure 12 Impact on coping strategies

Figure 13 shows responses to the question “During the last month, did your household have to do any of the following things because there was not enough money to buy essentials for living?” The Research Team observed statistically significant decreases in child labor, dangerous work, and selling productive assets. About 10 percent of households in the control group had to send children to work, compared to four percent in the treatment group. This suggests that **cash assistance reduces child labor**. This result is in line with the broad evidence from other studies that cash transfers, conditional and unconditional, lower the incidence of child labor (see De Hopp and Rosati 2014 for a literature review). Furthermore, the study asked about dangerous work, which was defined as work that put the worker in physical danger that they would not do if they had enough money. About 13 percent of households in the control group undertook such work compared to about six percent in the treatment group. Almost 10 percent of households in the control group had to sell productive assets, compared to four percent in the treatment group.⁴⁵

⁴² 84.3 percent of primary respondents are male. But in 34.5 percent of interviews the spouse was present during the interview.

⁴³ Dangerous work is the same as risky activities. Both words generally translate to khatira in Arabic. The prompt explained that we were discussing activities for profit that put one in physical danger.

⁴⁴ P-value < 0.001, P-value < 0.001 for “Relied on less preferred food”, p-value=0.88 for “Borrowed food...”, p-value < 0.001, P-value < 0.001 for “Reduced the number of meals”, p-value=0.16 for “Restrict consumption by adults”, p-value=0.04 for “Reduced portion size”.

⁴⁵ All p-values < 0.001

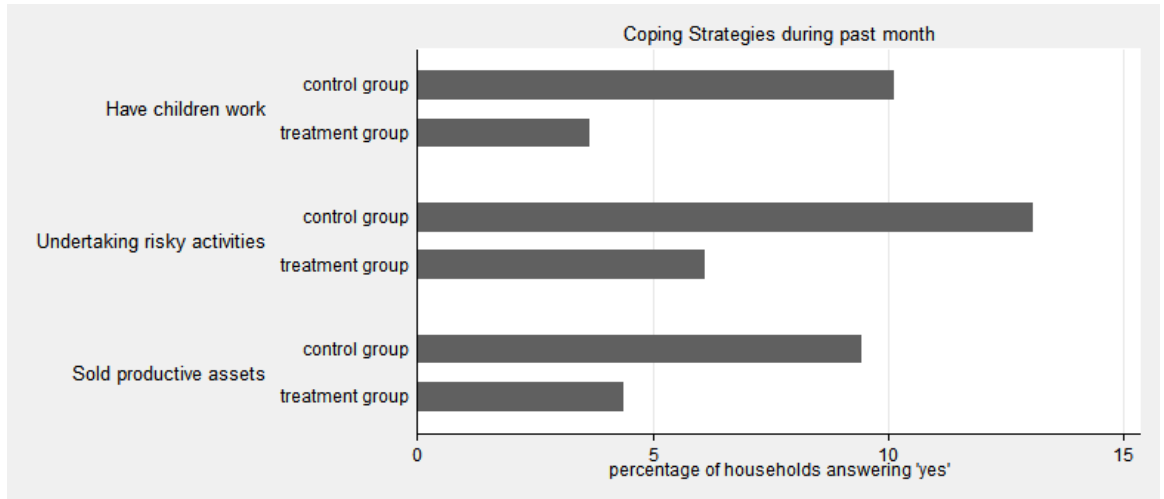


Figure 13 Impact on coping strategies (cont'd)

4. DOES CASH ASSISTANCE INCREASE ACCESS TO EDUCATION?

Syrian refugee children in Lebanon can attend Lebanese schools if there is capacity at the local school. There are no formal school fees at government schools, but Syrians need to pay for transportation to and from school, books, and other supplies. These costs can be prohibitive for many refugees. **Cash assistance can increase children's access to school by increasing a parent's ability to cover the necessary costs and decreasing the need to send children to earn money.**

Figure 14 compares school access to education in treatment and control group. In the control group about 33 percent of children are currently enrolled in school, compared to about 39 percent in the treatment group.⁴⁶ This suggests that cash assistance increases access to education.

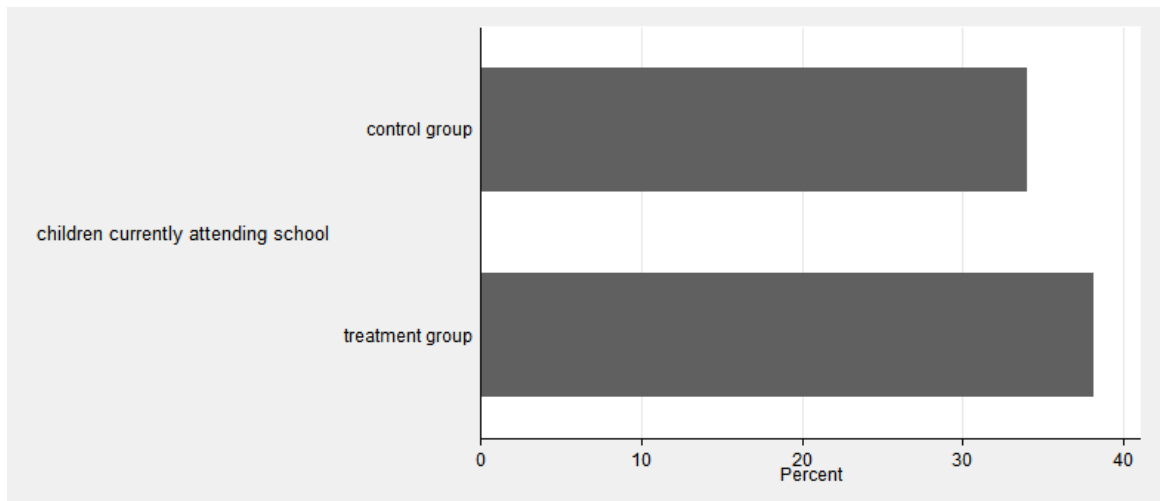


Figure 14 Impact on access to education

⁴⁶ P-value=0.01

5. HOW DOES CASH ASSISTANCE AFFECT RELATIONSHIPS WITHIN THE HOUSEHOLD?

Figure 15 suggests that **cash assistance also improves relationships within the household**. The figure displays the average number of disputes between adult household members during the prior four weeks. It is important to note that 84.3 percent of primary respondents are male and that in 34.5 percent of interviews, the spouse was present during the interview. While there was, on average, more than one dispute between household members in the control group, there was less than one dispute between household members in the treatment group.⁴⁷

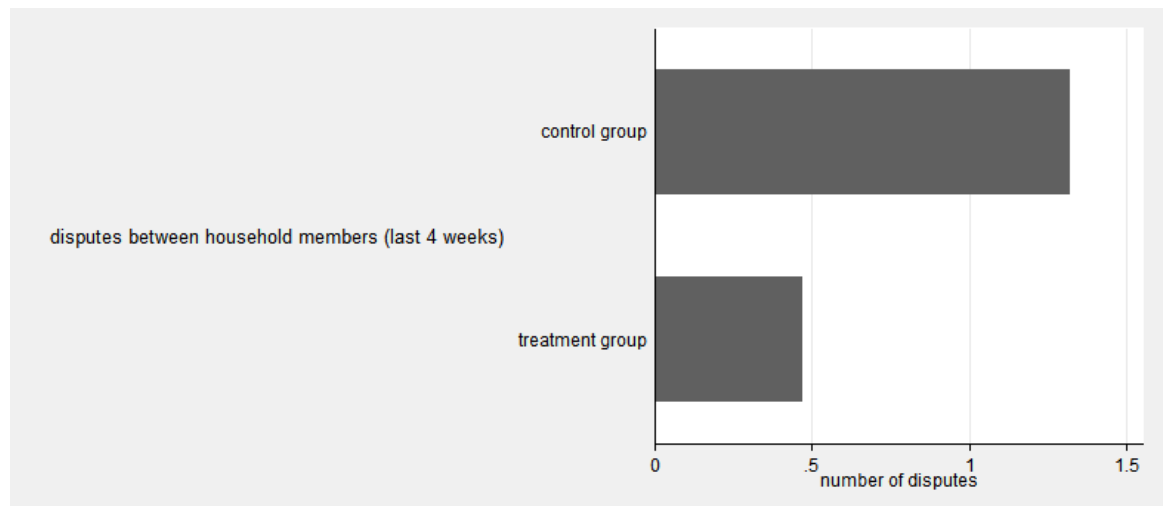
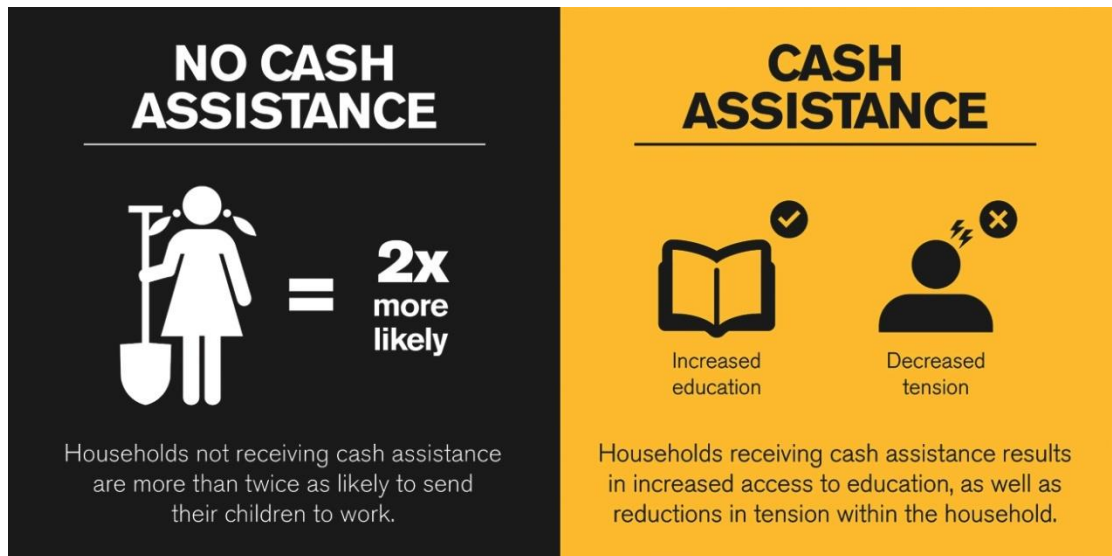


Figure 15 Impact on intra-household relationships

In theory, the relationship between household income and intra-household conflict can go both ways. Cash assistance may trigger disputes between household members about how the money is spent. The Research Team does not expect this effect to be substantial. As shown in previous sections, beneficiary income and savings, even supplemented with cash assistance, is insufficient to cover a household's costs for food, water, heating, etc. One might therefore expect that there is little disagreement among household members that received cash assistance on how the assistance should be spent on these items. However, this would require further investigation to confirm.

On the other hand, when income is very low, disputes may arise due to stress and dissatisfaction of household members with the current situation. Cash assistance seems likely to increase satisfaction (or at least decrease dissatisfaction) of household members and therefore reduce dispute. Figure 15 suggests that the latter effect outweighs the "how the money is spent" effect. The treatment group is less likely to have disputes than the control group. Surprisingly, however, the treatment group did not report better psychological well-being in the survey, which complicates the explanatory power of this mechanism.

⁴⁷ P-value < 0.001



6. ARE THERE ANY UNDESIRED IMPACTS?

Does cash assistance make recipients reduce labor supply?

A concern raised by some critics is that cash assistance may discourage labor supply of beneficiaries because cash assistance reduces the need to make money through work.⁴⁸ Figure 16 shows that these fears are unfounded in the case of the winterization cash transfer program. The figure shows the average number of days that an adult household member worked during the prior four weeks. The difference between treatment and control group is statistically significant but not meaningfully large. One can thus not affirm that cash assistance generates meaningful disincentives to work. This difference may be explained by the findings in Figure 13 that recipients are much less likely to undertake dangerous work to earn money.

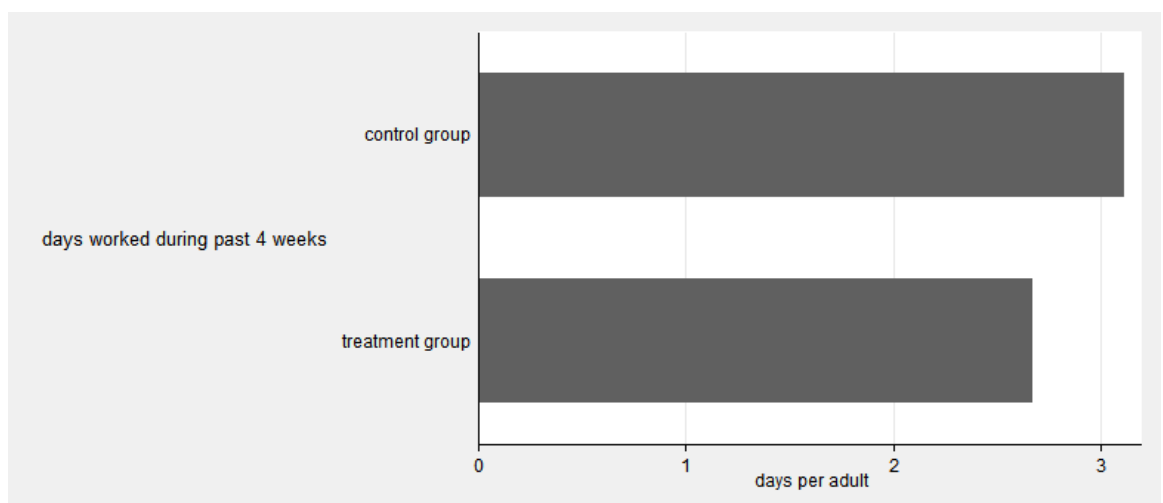


Figure 16 Impact on adult labor supply

Labor supply is very low in both treatment and control group. An adult worked about three days during the past four weeks (3.1 days in the control group compared to 2.7 days in the treatment

⁴⁸ The existing empirical evidence on the topic is mixed. Some studies find no effects on labor supply (Parker and Skoufias, 2000; Foguel and de Barros, 2008, Haushofer and Shapiro, 2013) while others find positive effects (Ribas and Soares, 2011; Alzua et al., 2012), while again others find negative effects (Tavarez, 2010). Blattman, Fiala, and Martinez 2013 and Blattman et al. 2013 found an increase in hours worked when in a cash transfer program with features encouraging investment.

group).⁴⁹ This shows how scarce employment opportunities are for Syrian refugees in Lebanon and partially explains the low labor income of refugees documented in section 4.1.

Is cash assistance spent on “vice goods”?

The study confirms existing evidence from other contexts that **cash assistance is not spent on undesired items**. Figure 17 shows that there is no negative impact of winterization cash transfer program on undesired spending. Displayed are expenditures for ‘vice goods’ (e.g., alcohol, tobacco etc.) during the past 30 days. There is no significant difference in spending on beverages or sweets, but there is a significantly lower amount of tobacco spending. Overall, this suggests that households in the treatment group spent slightly less on vice goods.⁵⁰ Given that vice goods are often used to alleviate stress, these results are potential evidence that cash assistance reduces tensions of beneficiaries.

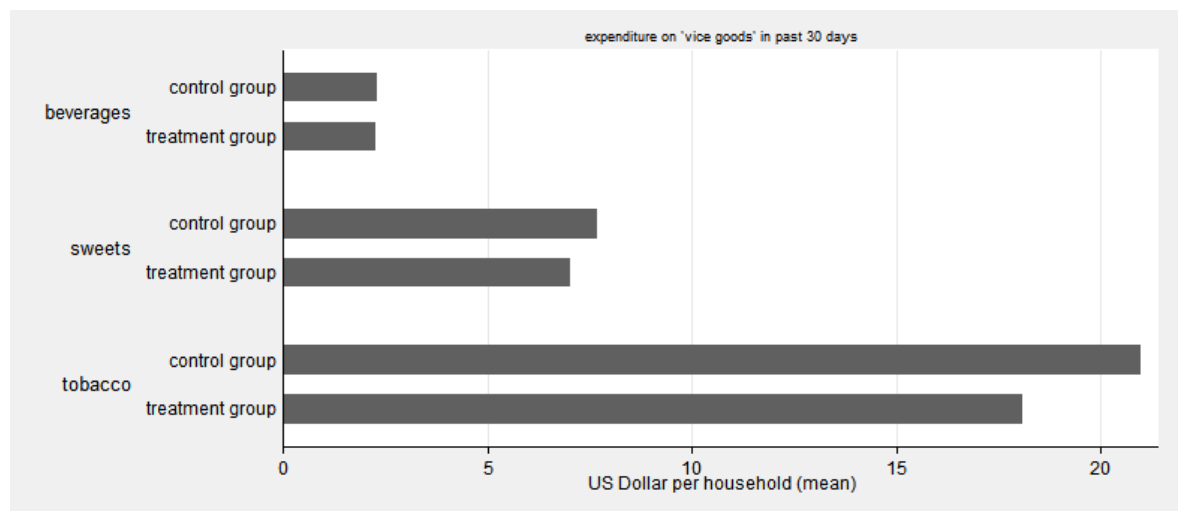


Figure 17 Impact on vice-good spending

Is cash assistance “captured” by elites?

Another concern is that locally influential groups abuse or capture cash assistance. For example, it could be the case that community leaders or other elites (e.g., local politicians, police or military, government officials, workers of humanitarian organizations, religious institutions, etc.) collect “fees” from beneficiaries. These concerns are unfounded in the case of the winterization cash transfer program since **no household in the sample reported to have ever been asked for money by a local interest group**.

⁴⁹ P-value=0.05

⁵⁰ P-value=0.88 for beverages, p-value=0.47 for sweets, and p-value=0.05 for tobacco.

7. DO HOUSEHOLDS PREFER CASH ASSISTANCE OR IN-KIND TRANSFERS?

All survey respondents have received in-kind food assistance in the form of the WFP e-voucher card. Both treatment and control group households were asked about their preferred way of receiving assistance. **About 80 percent of respondents prefer cash assistance only** (Figure 18). Less than five percent prefer only in-kind transfers. And a bit more than 15 percent prefer both cash and in-kind transfers.

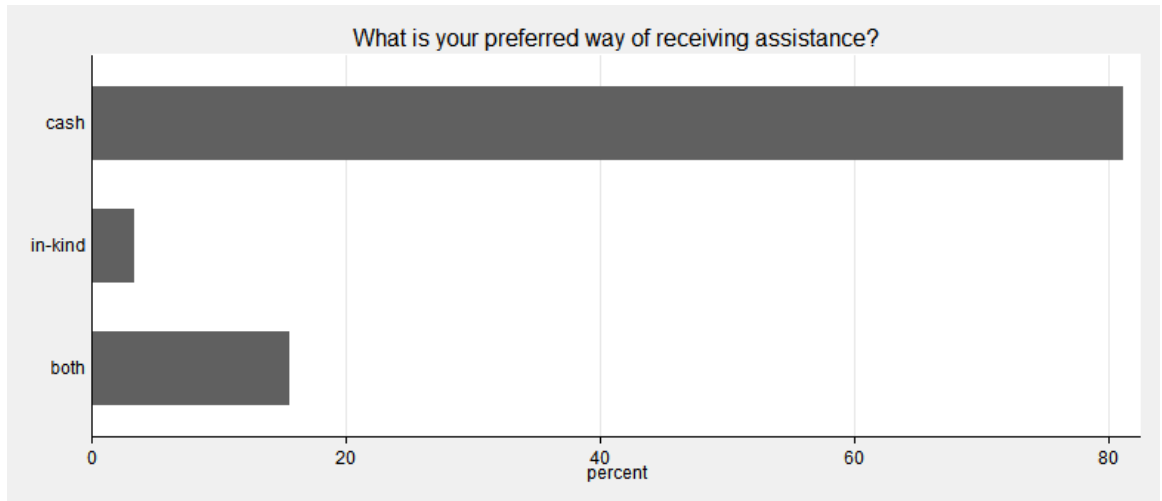


Figure 18 Do households prefer cash assistance or in-kind transfers?

Households that prefer in-kind or both were asked which goods they prefer to receive in kind. Almost 90 percent answered food (Figure 19). The prioritization of food aligns with existing findings from other cash transfer programs.⁵¹ The preference of some households to receive food parcels over cash could be because, every month, inflation reduces the purchasing power of cash recipients.

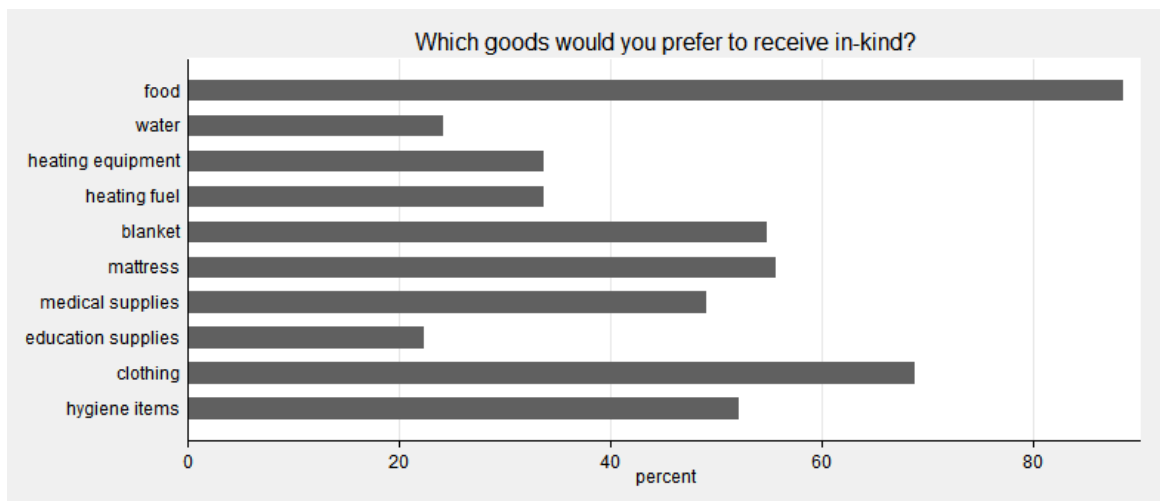


Figure 19 Which goods do households prefer to receive in-kind?

The minority that prefers to receive some or only in-kind assistance may be in locations where shops to purchase food are distant. Figure 20 shows that, on average, households need to travel about ten kilometers to the shop where they buy the majority of their food. Furthermore, the average distance to the ATM where households withdraw money is 19.6 km. Travel is costly in both monetary terms (transport costs) and in terms of time spent. This likely explains the preference of some households

⁵¹ In a 2013 systematic review of findings on cash transfers, GiveWell found that a majority of cash evaluations found significant increases in food consumptions in Mexico, Nicaragua, and Kenya.

for in-kind transfers over cash assistance. Figure 21 shows that households that reside in areas distant⁵² from markets are less likely to prefer only cash assistance and more likely to prefer in-kind or a combination of both.⁵³

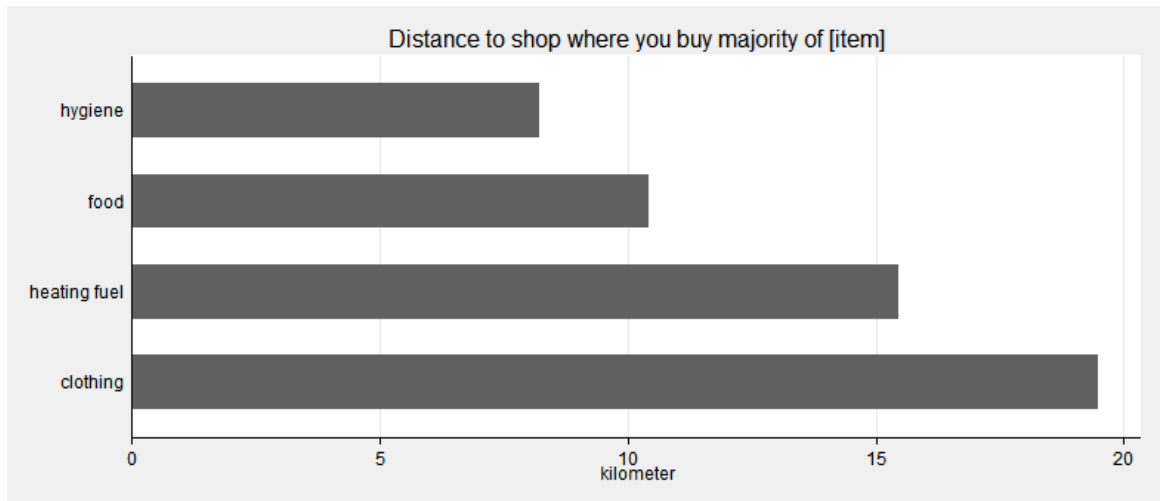


Figure 20 Distance to shop where households buy items

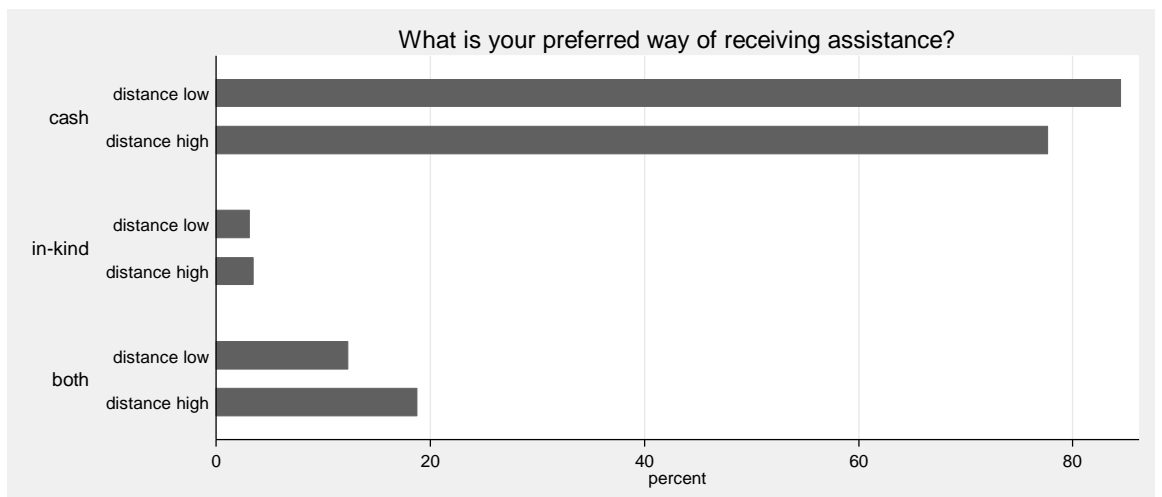


Figure 21 Do households prefer cash assistance or in-kind transfers – disaggregated by distance to market

5.2 Impacts on the economy and community

1. HOW DOES CASH ASSISTANCE AFFECT THE LOCAL ECONOMY?

Cash assistance to refugees constitutes a demand shock for the local economy. It is a priori not clear if and how fast the supply side can react to this sudden increase in demand. If supply is inelastic (unresponsive), then beneficiaries of cash assistance will be unable to buy what they need because the goods will not be available in sufficient quantities.

Whether the supply is elastic or inelastic can be inferred from changes in community prices. When supply is inelastic, cash assistance will cause inflation (prices go up). On the other hand, prices that do not change will suggest that supply is elastic.

⁵² Where “high distance” is defined as being above the average distance to shop where household buys food, “low distance” otherwise.

⁵³ P-value < 0.001 for cash, p-value=0.7 for in-kind, P-value < 0.001 for both.

Households in treatment and control group were asked about prices in their community for a total of 48 food and non-food items (including heating supplies and housing). **For all commodities studied, the Research Team observed no more than minor price differences in towns with winterization beneficiaries. This suggests that the cash did not have undesirable impacts on local prices.** For 47 of these 48 items, the team did not observe statistically significant differences between treatment and control group. Only the price of bulgur is 8 percent higher in the treatment group.⁵⁴ This suggests that supply is elastic and that markets are able to provide sufficient quantities of the goods and services that beneficiaries demand.

Importantly, the study finds no difference in housing prices. **The data also suggests that the treatment group does not pay higher rents than the control group** (\$189 control group, \$174 treatment group, not a significant difference).⁵⁵

A beneficiary household that spends the cash transfer generates additional income for the local economy, including Lebanese nationals. The generation of additional income can be distinguished into “first-round” and “higher-round” effects. The first-round effect is the additional income generated by the initial spending of beneficiaries. For example, if a beneficiary household buys food worth \$100 USD at a local shop, then the income of the shop owner increases by \$100 USD. However the shop owner uses this \$100 USD (whether to buy more goods, to pay back pre-existing debt and bills, or to save), the shop owner has an additional \$100 USD that will be split between savings (*not* passed on to other market actors) and spending (passed on to other market actors).⁵⁶

Higher-round effects describe the additional income from subsequent rounds of spending (e.g. the shop owner spends \$25 USD on a book with this income, which increases the income of the book shop owner by \$25 USD, and so forth). For this analysis, the Research Team assumes that people are spending their money within Lebanon.

In terms of first-round effects, in section 1.5, the report explained that beneficiary households received 220,000 LBP (\$147 USD) in November, calculated as contributions for heating fuel and a stove. Every month after that, the beneficiary households received 160,000 LBP (\$107 USD, totaling \$428 USD over four months). The total amount of cash that a beneficiary received is thus \$575 USD, i.e. \$115 USD per month on average. The Research Team finds no difference in savings or debt between treatment and control group. Furthermore, there is no difference in remittances to Syria. This suggests that beneficiaries spent the entire cash transfer in Lebanon on consumption goods. That is not surprising. In section 5.1 the study shows that beneficiary income, even after including cash assistance, is not high enough to cover all costs of households. There is thus no surplus that beneficiary households could save. In section 5.1, the study further establishes that beneficiaries spend the majority of received cash on food and water. Figure 20 shows the average distance to shops where households make purchases. For example, the average distance to the place where beneficiaries buy the majority of their food is 10.4 km. Thus, beneficiaries spent the money in local shops or markets, generating additional income for Lebanese producers and traders. The total number of beneficiary households is 87,700. A crude estimate of the first-round additional income generated by the cash program is thus $87,700 \times \$575 \text{ USD} = \51 Million USD . The true estimate is likely to be a bit lower than this number for the following reasons: First, the Research Team does not know whether indeed 87,700 households received or withdrew the full \$575 USD. The team has not yet been able to obtain bank transaction records for all beneficiaries. The study is thus unable to identify how much cash each of the 87,700 eligible households indeed received. Second, the impact

⁵⁴ p-value=0.10

⁵⁵ p-value=0.15

⁵⁶ Paying debts or loans to local lenders is considered spending because it passes on money within the country. The only difference between buying a physical product (e.g., milk) and a financial product (e.g., a loan) is that, for the physical product, you receive the item when you pay. For a loan, you receive the product before you pay. For estimating multiplier effects, we are interested in when people *pay* for a good, not when they *receive* it. Therefore, it does not affect the multiplier effect estimation if shop owners use income to pay back existing loans. Paying for loans still passes on money within the Lebanese economy that the seller (e.g., the creditor) can then use for other economic activity.

of cash assistance on consumption and savings reported in this and previous sections is only representative for the 827 beneficiary households residing between 500-meters and 550-meters altitude. The study cannot rule out that the impact on savings and remittances is different for beneficiaries residing in higher altitudes. For example, in the unlikely case that beneficiaries at higher altitudes do save a fraction of the cash transfer, then the estimate of additional income generated by the cash program would be lower than \$51 Million USD. However, the Research Team finds it reasonable to believe that if beneficiaries in the 500 to 550 meter window do not save cash assistance, then households at higher altitudes do not save either. This is because the climate in higher altitudes is colder, and thus spending on heating fuel is likely to be higher. Therefore, in higher altitudes, households have an even lower capacity to save than households in lower altitudes.

Higher-round effects can be calculated by the formula: $dY=C/(1-MPC)$.⁵⁷

That is, the total amount of additional Gross Domestic Product (dY) generated by one beneficiary household is calculated by dividing the amount of winterization cash that the beneficiary household spends (C) by one minus the marginal propensity to consume (MPC). Above the study established that beneficiaries spend (consume) the entire cash transfer, i.e., C=575. The Research Team is not aware of any previous studies that have estimated the MPC for Lebanon. However, Glystos (2005) estimates an MPC of 0.53 for the nearby country of Jordan. Using Jordan's MPC provides a conservative (smaller) estimate of the multiplier effect. Jordan's MPC of 0.53 is relatively low compared to other countries in the region (Glystos 2005 estimates the MPC of Egypt with 0.73 and the MPC of Morocco with 0.60), meaning that Lebanon's true (but unmeasured) MPC could potentially be higher. If Lebanon's were in fact higher than 0.53 (as in Egypt and Morocco), then the calculated multiplier effect would be larger. Consequently, the study uses Jordan's MPC for the multiplier analysis to provide a conservative estimate.

The total amount of additional Gross Domestic Product (GDP) that each beneficiary households generates for the Lebanese economy is then given by: $dY=575/(1-0.53)=1223.40$ USD

The multiplier is: $M=1/(1-0.53)=2.13$

Each dollar of cash assistance spent by a treatment group household generates 2.13 dollar of GDP for the Lebanese economy. The magnitude of the multiplier is similar to other recent studies that analyze the multiplier effects of cash transfers in a different context (Figure 22). Staunton (2011) estimates a multiplier of 2.59 for a cash transfer program in Zimbabwe. Neri et al. (2013) estimate a multiplier of 1.78 for the *Bolsa Familia* cash transfer program in Brazil.

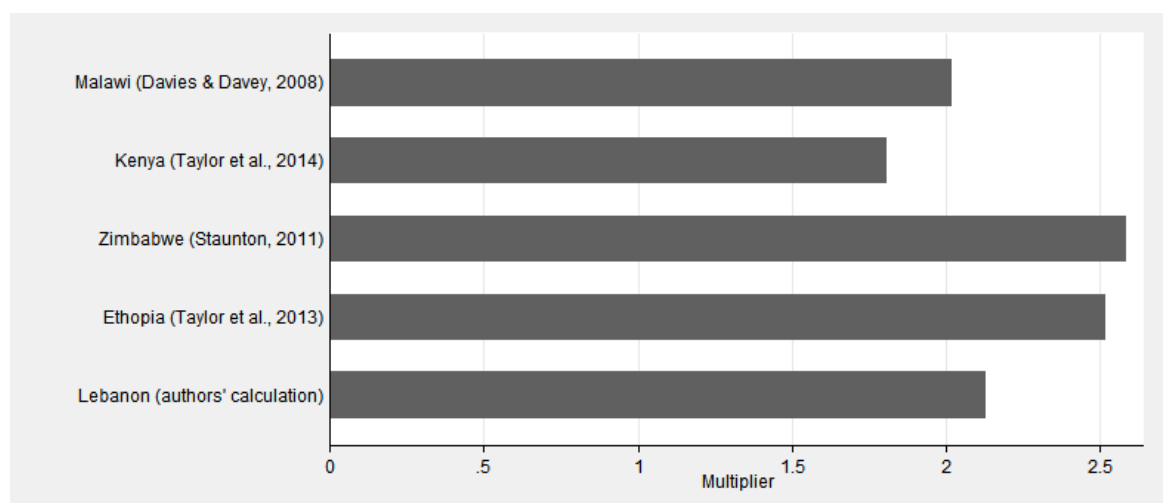
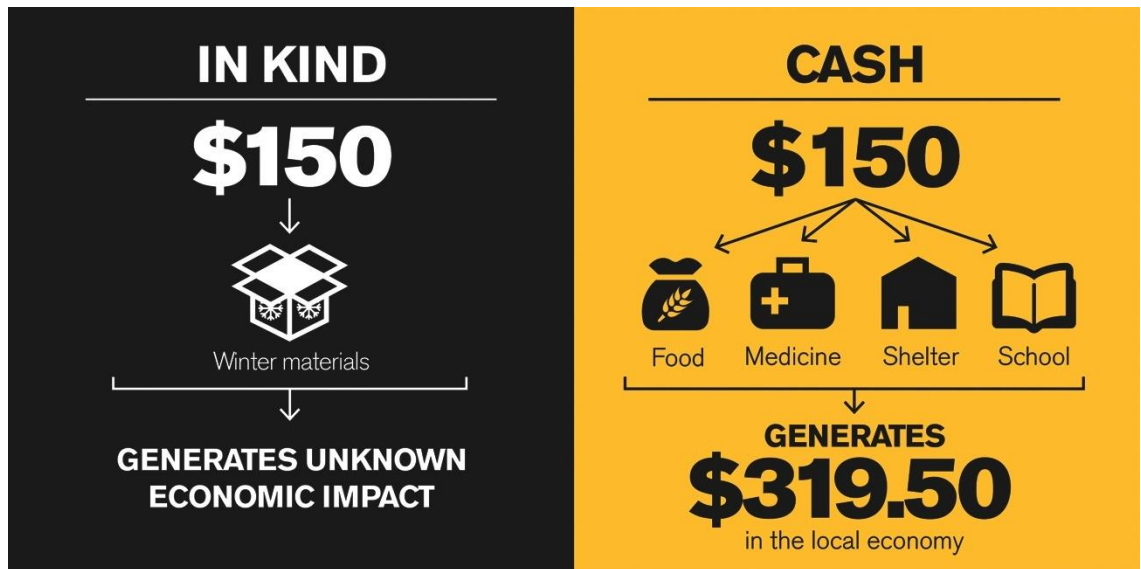


Figure 22 Multiplier effects in a comparative perspective

⁵⁷ See for example Robinson (2006) for technical details.



2. HOW DOES CASH ASSISTANCE AFFECT COMMUNITY RELATIONSHIPS?

Figure 23 and Figure 24 suggest that **cash assistance improves relationships between beneficiaries and other community members**. Figure 23 reveals that treatment group households are more likely to receive help from Lebanese community members. *Help* was defined in a survey prompt as “*help looking after your children, help when you are sick, help with housework, or giving money often*”. Thirty-one percent of households in the treatment group report having received help at some point from Lebanese community members, compared to 26 percent in the control group. At the same time, treatment group households are more likely to provide help to Lebanese community members. This suggests that **cash assistance increases mutual support between beneficiaries and non-beneficiaries**. This is in line with results of previous studies. Angelucci & DeGiorgi (2009) find that cash recipients share part of the cash transfer with other community members. This is because beneficiaries assume that they will need the help of these community members in the future (“I help you today, you help me tomorrow”). Another possible pathway could be triggered when beneficiaries have more non-monetary resources (e.g., time and emotional energy) to invest in building social ties. The study’s results, especially the section on spending habits and aid preferences, suggest that basic economic needs were the foremost concern of the respondents. As economic pressures are reduced, beneficiaries will have more time to meet other needs, such as developing mutually supportive social ties. The increase in mutual support may then explain why the treatment group is less likely to be insulted by Lebanese community members: 90 percent of households in the control group report to have never been insulted by Lebanese community members, compared to 94 percent in the treatment group.⁵⁸

⁵⁸ P-value < 0.001 for “never insulted”, p-value=0.43 for “never physically aggressed”, p-value=0.12 for “received help”, p-value=0.06 for “provided help”.

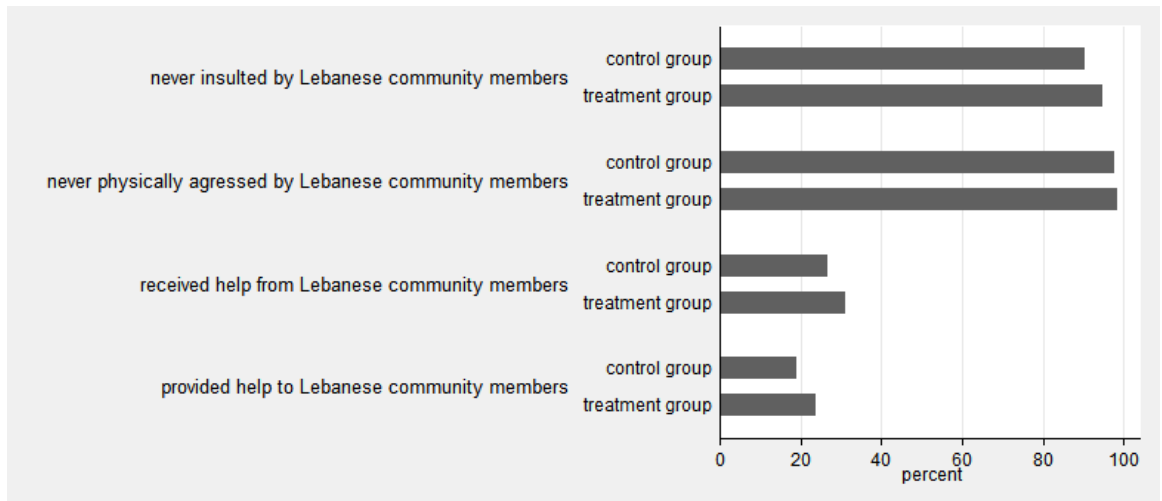


Figure 23 Impact on community relationships

As Figure 24 shows, the Research Team observes **no significant change in relationships among Syrians as a result of cash aid.**⁵⁹ This suggests that the cash program did not lead to increased crime or jealousy.

The survey findings also suggest that households receiving cash are not at any greater risk of robbery or theft as a result of the transfer. None of the households in the sample reported having been robbed since November.

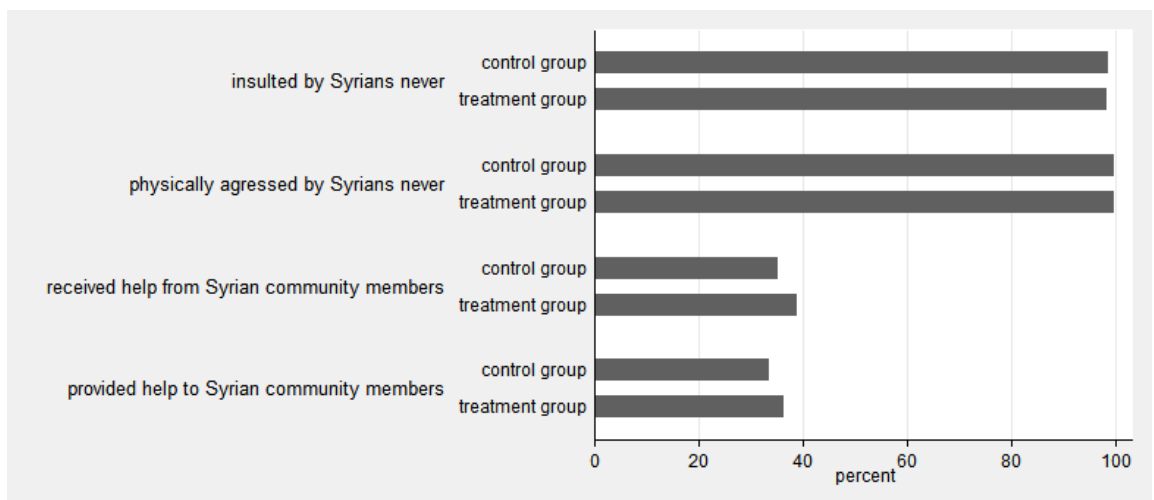
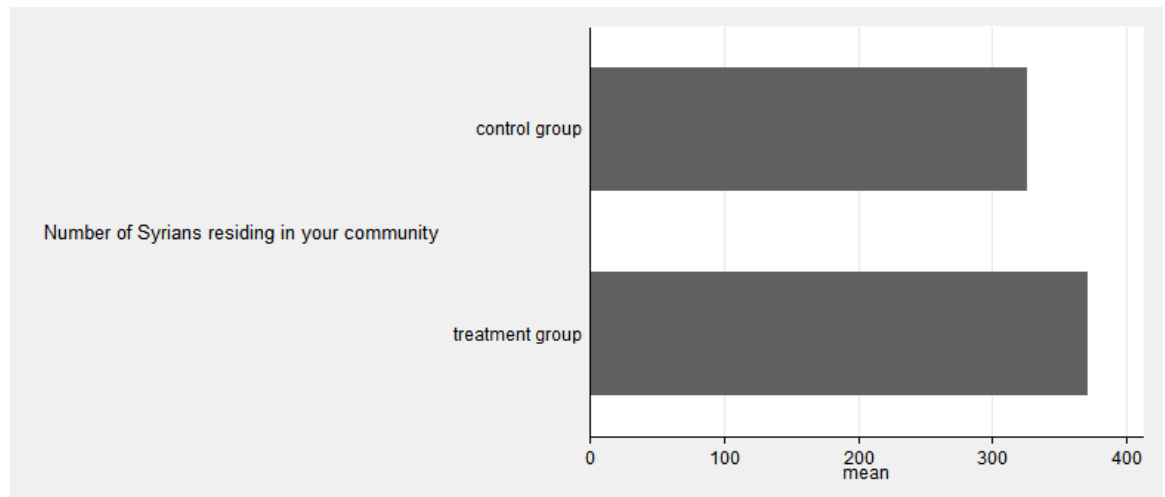


Figure 24 Impact on community relationships (cont'd)

⁵⁹ P-value=0.69 for “never insulted”, p-value=0.77 for “never physically aggressed”, p-value=0.24 for “received help”, p-value=0.38 for “provided help”.

3. WAS CASH ASSISTANCE A PULL-FACTOR FOR REFUGEES TO SETTLE IN LEBANON?

If cash assistance were a pull factor for refugees settle in Lebanon, then one would expect the Syrian population to be higher in treatment villages. Figure 25 shows that this is not the case.



Although the Syrian population is slightly higher in treatment villages, the difference is not statistically significant.⁶⁰

Figure 25 Was cash assistance a pull factor for refugees to settle in Lebanon?

Furthermore, if cash assistance were a pull factor, then one would expect that more family members of cash recipients move from Syria to Lebanon. The study's results show that this is not the case. 10.6 percent of the control group and 10.5 percent of the treatment group report that one or more members of their family have moved from Syria to Lebanon since November 2013 (i.e., since the start of the program). There is no significant or meaningful difference between treatment and control group. This evidence suggests that **cash assistance is not a pull factor for refugees to settle in areas where cash assistance is provided.**

6.0 Conclusions

6.1 Limitations

This study provides a number of key findings that are relevant to policy and practice in Lebanon and beyond. But, there are a few limitations that should also be acknowledged. First, the results in this study are only representative of refugee households living around 500 meters altitude. Great care has to be taken to extrapolate from the findings to higher altitudes, not to mention other countries and contexts. In higher altitudes, where average temperatures can be several degrees colder, the impact of cash assistance on heating fuel purchases is likely to be stronger because the weather is colder. In lower altitudes, on the other hand, one would likely see even less spending on winter goods.

Second, this research demonstrates benefits of cash assistance and provides evidence against hypothetical negative impacts. The study does not, however, provide evidence of the positive effects of providing cash assistance in place of in-kind assistance. The comparison groups were control households that received food e-vouchers, versus treatment households that received food e-vouchers *and also* cash assistance.

⁶⁰ P-value=0.40

Third, 85 percent of respondents were male. The descriptive statistics about intra-household tensions, therefore, need to be interpreted with caution as women respondents may have answered this question differently. The inferences about the causal effect of cash on intra-households tensions, however, can be interpreted more confidently. Since the gender of respondents was similar (mostly male) in both treatment and control groups, we can still identify the *difference* between the two groups. For reasons discussed in footnote 61, if we believe that men would report intra-household tensions less than women, and we find that cash reduces tensions in our data, then we can be confident that the true effect is at least as large as our estimate,⁶¹

Fourth, the study rigorously estimates the impacts of cash when \$575 was delivered per household over the course of five months. The findings offer suggestive evidence, but do not prove, what would happen with a different amount or timeframe. Specifically, the absence of evidence of market distortions from the recent program suggests that Lebanon's market is able to adjust for increased demand. This provides suggestive evidence that Lebanon's economy could adjust to larger amounts of cash aid, such as from a rapid scale-up. The study's evidence on the multiplier effect suggests that Lebanon's economy would benefit even more from larger cash transfer amounts and/or broader targeting.

6.2 Findings

Finding from this research may be summarized in four key results:

One: Cash assistance is effective for meeting basic needs, and recipients prefer it

The research has shown that Syrian refugees receiving cash assistance spent everything they received to meet basic needs. This included heating supplies, as intended given the nature of the winterization cash assistance program. The IRC found that cash was also spent on other basic needs such as food and water, despite the fact that many of the beneficiaries were also receiving food assistance from WFP. The research found that, contrary to common concerns, cash did not have meaningful downward effect on the labor supply of cash recipients and did not encourage spending on vices. The majority of respondents to the survey suggested that they would prefer to receive cash over other forms of assistance, and that markets were able to respond to cash injections.

Two: Cash assistance does not cause inflation but does produces significant multiplier effects on the local economy

The research found that there are no inflationary impacts from cash distributions. Furthermore, each dollar of cash assistance spent by a beneficiary household generates **\$2.13 USD of GDP for the Lebanese economy**. Also, the research shows that the grants are spent locally, meaning that local Lebanese economies benefit from the cash program.

Three: Cash assistance produces multiple positive social impacts within and beyond the household

Findings from this research show that, compared to households not receiving cash assistance, households receiving cash assistance were half as likely to send their children to work. Households receiving cash assistance also less frequently reduced the number of meals per day and the portion of meal sizes. Furthermore, they less frequently restricted consumption by adults for children to eat. While reducing some of these negative coping patterns among cash recipient households, positive effects were also identified, such as increased school enrollment and reductions in tensions within beneficiary households and also between refugees and the host community.

⁶¹ In other words, any downward bias will be present in both the treatment and control groups. The under-reporting will reduce the likelihood of identifying a true effect if it exists. But if one identifies a difference between the groups one could be confident that its real and that the difference is at least as large as what the study would have found without measurement error.

Four: Indebtedness and asset depletion will likely continue without further assistance

The majority of households surveyed through this research have no savings and are on average \$500 USD in debt. A household's average labor income is not high enough to cover even the necessary costs of food and water. Cash assistance helps in a very marginal way to limit further indebtedness. The amount of cash assistance given to date is modest in comparison to the costs of the minimum expenditure basket and previously incurred debts. Even after being supplemented with cash assistance, household income remains insufficient to cover refugee's basic needs.

Important questions remain for future research.

1. What are the long-term effects of the cash program?

The winterization cash program may have long-term impacts. For example, we show above that the cash program increased school enrollment. A long literature documents the positive relationship between schooling and future earnings (see Ashenfelter et al. (1999) for a review). The human capital accumulation caused by the cash program may thus be reflected in future earnings of the child. Furthermore, it is widely recognized that early childhood is a crucial phase in the development of a child's cognitive capacity, and that proper nutrition is very important during this time (Phillips and Shonkoff, 2000). According to the data we collected, each beneficiary household has, on average, at least one child below the age of four. Above, we show that the cash program increased food consumption of beneficiaries. More research would be necessary to make inferences about the long-term impacts of the program.

2. What happens if the cash program is scaled up?

To date, there is very little research on the effect of varying transfer size and the number of beneficiaries. For example, adding a large number of additional beneficiaries may affect local prices, even though this research did not find that outcome. If consumption becomes more expensive, this may result in a lower impact of the program on each beneficiary's consumption.

Another dimension of a scale up is the duration of the cash program. How would the impacts documented above differ for a program that runs longer than five months? For example, a household receiving a steady stream of guaranteed income (cash transfer) may take the risk of starting a business, knowing that if the business fails, it could still rely on the income of the cash transfer (Bianchi and Bobba, 2012). Furthermore, a steady stream of guaranteed income may serve as collateral, enabling beneficiary households to obtain access to productive loans from local moneylenders (Gertler et al, 2012). More generally, a steady stream of guaranteed income reduces the need of beneficiaries to worry about how to feed the family "today" (i.e. the short term), and thus enables them to think about investments that would improve their situation in the long term (Mullainathan, 2014).

3. What is the role of market imperfections?

Until now, empirical research on cash transfer programs has been largely confined to long-term poverty relief and development projects, rather than emergency settings and humanitarian aid. One of the main contributions of this study is to provide an impact of assessment of cash transfers in a refugee crisis. Many humanitarian emergencies occur in places with market imperfections, i.e., places with production and infrastructure constraints and limited market access. Lebanon, however, is an upper-middle income country (World Bank, 2014) with well-functioning markets. Recognizing this fact is important when it comes to extrapolating from the findings of this study to refugee crises in other countries. For example, many sub-Saharan African countries are characterized by imperfect markets. In these settings, the impact of cash assistance may be quite different from the impacts documented in our study in Lebanon.

The role of market imperfections is also linked to the question of what is the best modality of delivering aid. In places characterized by market imperfections, in-kind transfers may be more effective than cash assistance. For example, and quite intuitively, it will not be effective to hand cash to refugees living in a region where there are no shops or markets. More research on how the

impacts of cash assistance change with the degree of market imperfections is necessary to draw more general conclusions about impacts in emergency settings.

Appendix 1: Detailed Data Collection Protocol

A1.1 Household Questionnaire

The household questionnaire consists of 226 questions. The primary respondent in each household was the person who is mainly responsible for how the household spends its money. An interview took about one hour per household. The research team began developing the questionnaire in February 2014, drawing where possible from previous surveys. Key outcomes measured in the questionnaire included household expenditure and winter-related asset holdings. A town-level stratified random sample of households was asked 81 additional questions on local prices and market characteristics.⁶²

A1.2 Translation & Pretesting

The survey questionnaire was translated from English to Arabic by the Survey Firm. The initial Arabic-language version was then translated back into English by IRC staff, who had not seen the initial English version of the survey. The Research Manager and IRC Staff then went through the three versions of the survey (English 1, Arabic, and English 2) over the course of two working days. Revisions and comments were communicated to the Survey Company. The Research Manager reviewed the new Arabic version of the survey to verify that all requested changes had been made.

Before the Survey Firm conducted formal pretesting, the Research Manager and two IRC staff members conducted a one-day, four-household pretest in Halba, Akkar. Comments and changes were discussed between the Research Manager the IRC staff who conducted the interviews. After the Survey Firm made these additional changes, and after enumerator training (discussed below), the Survey Firm ran the pilot test of the survey. The Survey Firm conducted ten pilot surveys, eight in Khirbat Daoud, Akkar and two in Al Bourjein, Chouf. The Survey Firm submitted a pilot report, which the Research Manager responded to, and the survey instrument was further revised.

A1.3 Stakeholder Feedback

IRC sent the questionnaire to the members of the Cash Working Group in Lebanon, which consists of representatives of non-governmental and UN organizations, for feedback. IRC received helpful feedback from staff of UNHCR, UNICEF, DRC, Save the Children, ACF International, and ECHO. The Research Team incorporated the suggestions to the greatest extent possible.

A1.4 Enumerator Recruitment & Training

The Survey Firm hired enumerators from its survey staff. All enumerators received training in general survey methods when beginning work with the Survey Firm. The Research Manager and a manager from the Survey Firm conducted two working days of training with the enumerators from each region. By training with each region's staff individually, the Research Manager had more opportunity for direct communication with the enumerators to ensure thorough understanding of the project and the survey questionnaire. Training stressed the precise meaning of the concepts, given the complexity of some of the items. By doing so, the Research Team augmented consistency in survey enumeration, including not only the written script but also the presentation of examples and the appropriate responses to respondents' questions. The stress placed on consistency was founded on previous studies' findings that small changes in protocols and enumerator behavior can result in large changes to respondents' behavior.

A1.5 Survey Implementation and Logistics

The survey was administered in April and May 2014, i.e., about six months after the start of the program and immediately after the end of the program. The Survey Firm and the Research Manager led data collection. Enumerators were Survey Firm employees. Lebanon is a small country, (similar in size to Jamaica or Cyprus, or roughly two-thirds the size of the American state of Connecticut)

⁶² The town-level stratified sample selected up to four respondents in each village. If a village had four or fewer respondents from our full sample, then all households in that village were interviewed.

which made transport and logistics relatively simple. For instance, the Research Manager could travel from the capital, Beirut, to any research site on the same day. The country was divided into three regions for purposes of survey conduct: (i) the North, (ii) the South, and (iii) Mount Lebanon and the Biqa'a (in the west and east, respectively).

Before data collection, the Survey Firm called the local government office (*al-baladiyya*), a local office of the Ministry of the Interior, and also checked in upon arrival to confirm permission to conduct the survey. In general, permissions went smoothly. Necessary negotiations for operation in the South caused slight delays but did not prevent successful completion of the survey.

Most individuals were contacted via phone prior to the interviews. The Survey Firm would specify a time and location for the interview during this conversation. 577 individuals lacked address information in the contact database. If the Survey Firm succeeded in contacting them over the phone, they would schedule an interview, which was the case with almost all who were reached. 322 individuals could not be contacted via phone numbers in the contact database (18 were strictly missing, but many were wrong numbers or there was no answer). The Survey Firm asked for these individuals upon arriving in the community using the individual's address information. If a respondent

did not have a phone number or an address, the team would seek out the individual using the most specific information available in the contact database (e.g., town name) and then ask for the person by name in the community.⁶³

Enumerators collected the data using paper-and-pencil interviewing. Surveys documents were identified with a unique household ID that the Research Manager assigned and not by name to ensure respondent anonymity. To clarify data entry, enumerators always wrote words and letters in Arabic, and wrote all numbers in Hindu-Arabic numerals (i.e., 1, 2, 3, 4, and not modern Arabic numerals, ١, ٢, ٣, ٤). This avoids any potential confusion between different numbers that look similar in different numeric systems.



A beneficiary of cash assistance in Lebanon is briefed on the program.

On average, each survey team of two enumerators conducted five interviews per day. The number of households completed per day decreased over the course of the survey because conduct began in densely populated areas and ended in disparately populated areas, which required more travel time between interviews. Interviews were conducted in respondents' homes or sometimes right outside their home. Generally, many other people were present in interviews – usually friends, family, and neighbors. For numerous reasons, it was usually infeasible to request to interview the respondent alone. First, most living spaces are small with only one area to sit – often on the beds. Second, it is generally acceptable for friends and neighbors to enter friends' houses and sit down. To account for potential desirability effects due to the presence of others during the interviews, enumerators recorded who else was present in the room (for more than 10 minutes) and who else was answering questions (for more than five questions).

As is standard procedure for any survey and in keeping with Yale University's human subjects guidelines, during the informed consent process, enumerators informed all participants that they could refuse to answer any question and they could end the interview at any point with absolutely no consequences.

⁶³ 1861 individuals met our selection criteria in November 2013 at the beginning of the program. By the time we sought respondents for the survey in April 2014, 62 households were no longer in UNHCR data. So when we actually began surveying, we had 1789 households in our sample. Given 1361 complete interviews, we had attrition rates of 24-26 percent depending on which calculation you use.

Enumerators worked in teams of two, with one person conversing and reading and the second writing. The Survey Firm was responsible for determining the order of interviews. This was determined largely according to geographic concerns. Survey conduct began in areas with many respondents close to one another. The Research Manager traveled with an IRC driver and the Survey Firm used its own vehicles to transport enumerators.

A1.6 Auditors

IRC hired auditors to confirm the quality of data collection and the data. First, auditors accompanied data collection teams each Wednesday. Second, auditors called a sample of 371 households to collect basic information to confirm the quality of survey work.

Field visits When auditors accompanied survey teams in the field, they were responsible for ensuring that enumerators maintained high standards of work. They ensured that enumerators were asking all survey questions clearly and accurately. They ensured that enumerators were not suggesting answers to the respondents or re-interpreting questions or answers. Auditors also ensured that enumerators were accurately executing important details of survey conduct such as the randomization schedule and the consent script. Auditors were instructed to interrupt survey conduct only to correct blatant violations and errors. They were to contact the Research Manager immediately with any questions or ambiguities. Smaller issues related to survey conduct and any issues unrelated to the survey (such as service referrals) were communicated in a report that each auditor submitted to the Research Manager at the end of each working day via email.

Phone calls The auditors called 371 households to confirm data quality. These calls served two purposes. First, to identify fraudulent interviews (i.e., submitted forms for interviews not conducted) the auditor confirmed that enumerators had visited the household and conducted the survey. Second, to identify fraudulent or shoddy data the auditor asked a number of simple yes/no survey questions that could then be compared to the survey data. To maintain answer comparability, the same consent script was read over the phone to respondents.

Auditor phone calls and follow-up with the Survey Firm suggest that all scripts are verified as legitimate. Twenty-two phone respondents told auditors that they were *not* interviewed. The Research Manager contacted the Survey Firm regarding the matter. The Survey Firm was able to confirm that interviews were in fact conducted with twenty of these twenty-two households. Two households could not be contacted. One phone number was no longer in operation. The second phone number was called many times over the course of 24 hours but no one answered the phone. The other 20 households were confirmed upon calling again. Sometimes it was revealed upon calling back that the auditors had not spoken with the original survey respondent. Other times the household respondent was confused about which survey the auditors had asked about. The consent script mentions the multiple organizations associated with the survey. Consequently, some respondents remembered the enumerators as coming on behalf of IRC or commissioned by IRC or the UN. Many did not remember the name of the Survey Firm "Information International." To further confirm, when calling the households the Survey Firm asked questions about the UNHCR/WFP card and the enumerators' genders and approximate date of interview.

A1.7 Data Entry

The Survey Firm used a Microsoft Access form for data entry. The form was constructed in partnership between the Research Manager and the Survey Firm. The form had logical rules to minimize data entry errors. Logical rules automatically followed skip patterns for data entry. Logical checks were applied to ensure that answers were logically consistent. (For example, expenditure on one item cannot be greater than overall household expenditures.) If illogical responses were recorded on the survey form itself the Survey Firm would call the household to confirm survey responses.

A1.8 Problems and Concerns

General Response Bias As in any survey, we must consider incentives that respondents may have to provide enumerators with inaccurate information. In the context of this survey, respondents may

believe that this survey constitutes a reassessment of their household's need. Believing this, some respondents may provide inaccurate responses in order to appear more in need of aid. To reduce the prevalence of over-reporting and under-reporting, two steps were taken. First, enumerators were trained to emphasize that the survey is not a household-level needs assessment. The enumerators read text both in the consent script at the beginning of the survey and again in the middle of the survey that went, "The following survey is not being used to re-assess your household's need for aid. Your answers will not be used to re-determine your household's amount of aid." Second, during data entry the Survey Firm would flag illogical responses and call the house again to confirm or improve responses. For instance, if a household reported that total spending was \$200 per month but then later said they spend \$250 dollars per month on food, the Survey Firm would make a verification call. Errors like this may also be due to enumerator error, so the phone calls are an important step in data quality checks.

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