

# LIVELIHOODS IN THE ZA'ATARI CAMP

Impact evaluation of Oxfam's Cash for Work activities  
in the Za'atari camp (Jordan)

Effectiveness Review Series 2017/18



Photo credit: Sami Al Alul/Oxfam. Abdullah forging a base for a water tank in Za'atari refugee camp in Jordan.

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## Executive Summary

Oxfam GBs Global Performance Framework is part of the organizations efforts to better understand and communicate its effectiveness, as well as enhance learning across the organization. Under this Framework, a small number of completed or mature projects are selected each year for an evaluation of their impact, known as an Effectiveness Review. The project Za'atari Recycling and Livelihood, subsequently extended to all Cash for Work (CFW) activities conducted by Oxfam in the Za'atari camp, was one of the projects selected for the Effectiveness Review in 2017/18.

CFW is a humanitarian intervention to provide temporary employment in public projects to vulnerable populations. Oxfam has implemented CFW activities as part of its humanitarian support in the Za'atari camp in Jordan since 2014. It is estimated to have directly involved 3,400 refugees from 2014 to 2018. This Effectiveness Review, which was conducted in July and September 2018, intended to evaluate the impact of Oxfams CFW activities among project participants.

Based on a composite index measuring asset ownership and housing conditions, this evaluation has found evidence that Cash for Work (CFW) activities conducted in the Za'atari camp, Jordan, had a positive and significant impact on household wealth. Moreover, households with at least one member engaged in CFW in the previous 12 months, reported on average 23 percent higher income than comparable households in the camp. When analysing semi-skilled workers only, the analysis still finds positive and significant results on household wealth but does not find evidence of positive and significant results on self-reported income.

Households engaged in CFW activities are 12 percentage points more likely to have at least one household member engaged in at least one income-generating activity and are 19 percentage points less likely to engage in income opportunities other than CFW.

Overall, positive opinions towards CFW are generally high among refugees, with more positive opinions expressed by individuals directly involved in the programme. On average, 49 percent of the respondents in the intervention group agreed with the statement that agencies operate fair and accessible CFW programmes; 46 percent strongly agreed with the statement that agencies treat CFW workers with respect and dignity; finally, 42 percent and 44 percent strongly agreed with the statement that programmes provide a safe environment and give women equal access.

There is evidence that CFW activities have improved skills for semi-skilled workers. The analysis reveals that semi-skilled respondents engaged in CFW activities are 12 percentage points more likely to report increased technical skills since the beginning of the project. However, there is no evidence that refugees recruited for skilled, highly skilled and technical jobs have improved their skills.

Similarly, the evaluation finds positive and significant results on indicators investigating self-esteem for semi-skilled workers, however estimates on the entire sample (including skilled, highly skilled and technical workers) provide limited evidence on such indicators.

The evaluation also provided evidence that households involved in CFW have a higher proportion of women engaged in economic activities (21 percent in the intervention group against 10 percent in the comparison group). For the group of semi-skilled workers only, CFW exposure seems to have a positive and significant effect on opinions towards womens economic role.

Finally, the evaluation investigated some of the narratives from refugees in explaining the motivations, challenges and satisfaction in pursuing paid work opportunities. Of the stories from the intervention group, 71 percent were related to CFW activities. The main motivation among refugees for seeking a job was access to material resources. Respondents in the intervention group were more likely to report achieving their goals and recommend their experience to a friend compared with respondents in the comparison group.

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# 1 Introduction

Oxfam GBs Global Performance Framework is part of the organizations efforts to better understand and communicate its effectiveness, as well as enhance learning across the organization. Under this Framework, a small number of completed or mature projects are selected each year for an evaluation of their impact, known as an Effectiveness Review. The project Za'atari Recycling and Livelihood, subsequently extended to all Cash for Work (CFW) activities conducted by Oxfam in the Za'atari camp, was one of the projects selected for the Effectiveness Review in 2017/18.

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This Effectiveness Review, which was conducted in July and September 2018, intended to evaluate the impact of Oxfams CFW activities on household income among project participants. Common across all the Effectiveness Review conducted under the Livelihood thematic area, the evaluation additionally also accommodated as many questions as possible that are relevant for a programme learning prospective. Such questions were identified with the programme team during a workshop in Amman in December 2017.

The key questions this evaluation sought to answer are:

1. What is the impact of Oxfams CFW activities in the Za'atari camp on household income (measured by household consumption and expenditure per adult equivalent person, per day)?
2. What is the impact of the CFW activities on secondary outcomes as highlighted on the theory of change
3. What are the stories experienced by refugees in trying to access paid work since arriving in the camp?
4. What are the primary motivations and reasons behind pursuing paid work opportunities?
5. To what extent do refugees achieve the goals they pursued while trying to obtain paid work, and how do they qualify their experience?
6. Are CFW activities reaching the most vulnerable households across all skill levels?
7. Is the duration and frequency of CFW opportunities enough to increase household income?
8. What are the other economic opportunities for refugees in the camp?

Section 2 of this Effectiveness Review describes the projects aims and objectives. Section 3 outlines the design of this evaluation. Section 4 presents the data, and Section 5 the estimation strategy. Results of the impact of the project (questions 1, 2, and 3) are reported in Section 6. Questions 3, 4 and 5 are reported in Section 7. The remaining evaluation questions are reported in Section 8. Finally, Section 9 concludes with a summary of the findings and some programme learning considerations.

## 2 Project description

The Za'atari camp was opened in 2012 by the United Nations High Commissioner for Refugees (UNHCR) and the Jordanian government in response to the Syrian refugee crisis. It currently hosts over 78,000 refugees (UNHCR, 2018).

CFW activities implemented by Oxfam in the Za'atari camp started in 2014. According to the Cash Learning Partnership (2017), CFW is an initiative in which refugees are remunerated for supporting partners in the camp. In particular, CFW is defined as cash payments provided on the condition of undertaking designated work. Payments are generally made according to time worked (e.g. number of days, daily rate), but may also be quantified in terms of outputs (e.g. number of items produced, cubic metres dug). CFW interventions are usually in public or community work programmes but can also include home-based and other forms of work (CaLP, 2017).

In any given week, Oxfam employs about 509 workers at Za'atari camp for CFW activities. Such activities serve a double purpose, the main one being to provide as many refugees as possible with opportunities to participate in activities that allow them to generate income (Oxfam, 2017a). Secondly, CFW activities enable Oxfam to conduct functioning projects employing a labour force from the camp. Oxfams rolling operations include, for example, upgrading latrines, improving waste management, and maintaining the camps functioning water systems, as well as running a functioning office by recruiting CFW staff (e.g. as guards, cleaners, clerks for data entry, community mobilizers, etc.).

The focus of this evaluation is to estimate the effects for refugees and their families of engaging in CFW activities. For the refugees in the camp, CFW activities are one of the few legal economic opportunities available to ameliorate the nagging uncertainty about building sustainable livelihoods. This is reflected in how strictly CFW positions offered by agencies are regulated and monitored.

CFW activities are rolled out in the camp by Oxfam on a variety of different projects. One of the most important projects of Oxfams CFW activities is a camp-wide waste recycling and management system, aiming to reduce the amount of waste being dumped in local landfills (Oxfam, 2017b). Households bring their waste to one of the several hundred dumpsters in the camp, where waste is sorted by street sweepers employed with CFW contracts. Waste is then taken to and stored in recycling facilities implemented by the project. The programme, first piloted in one camp district in 2015, has since been scaled up to the entire camp (Brangeon and Kucharsk, 2017).

Another important pillar of CFW in the Za'atari camp is Water and Sanitation for Health (WASH). UNICEF leads on the WASH sector activities in the camp, and drinking water comes from three boreholes drilled for the purpose. In addition to drinking water, WASH activities include a wastewater system. CFW positions in WASH include water distribution and monitoring, tank maintenance, wash block maintenance, and cleaning (Buchon and Grabundzija, 2016).

Across all the projects, job opportunities include street sweepers, separation workers in the recycling centre, office clerks, team leaders, community mobilizers, welders, and plumbers, among others. These CFW workers can be divided into semi-skilled, skilled and technical depending on the skills required for the various jobs:

- Semi-skilled workers, around 60 percent of the positions, are paid JOD 1 (\$1.5) per hour
- Skilled, highly skilled and technical workers, jointly representing the remaining 40 percent of weekly positions, are paid at JOD 1.5, 2, or 2.5 per hour, respectively.

In a given week, almost 60 percent of the positions available are for semi-skilled workers. These activities include trolley workers (for the recycling project) and street sweepers/litter pickers, water



Figure 1: Picture from the recycling centre managed by Oxfam which employs refugees with CFW contracts (photo credit: Simone Lombardini).

focal points, and guards. The total number of people engaged with this type of work is even higher, as they are subject to higher rotation. For example, street sweepers are typically enrolled for one week every four months, and trolley workers are typically engaged for periods of three months. Semi-skilled workers are paid JOD 1 per hour, earning as a minimum JOD 20 (\$28) per week (four days, five hours per day). There are no selection criteria for engaging in these activities. All eligible applicants are registered on a list and are engaged on a rotation basis, depending on demand. Most semi-skilled workers are recruited from Oxfam's districts D6, D7 and D8.

Skilled, highly skilled and technical workers represent the remaining 40 percent of weekly refugee CFW positions. They are typically engaged for longer periods (6 months or one year), and are paid JOD 1.5, 2 or 2.5 per hour. Positions include separation workers, office workers, team leaders, community mobilizers, welders and plumbers, among others. These workers are selected through a recruitment process, where the most qualified candidates get the jobs.

The Effectiveness Review focuses on changes taking place at individual and household levels coming as a result of engagement with CFW activities. The theory of change suggests that refugees in the most vulnerable households engage with semi-skilled CFW activities, which provide access to fair, transparent and safe working opportunities. This grants access to short-term liquidity, which allows them to break even (reaching a minimum agreed consumption basket). The theory of change for more skilled workers suggests that by engaging with CFW activities, these refugees have the opportunity to improve skills and knowledge, increase self-esteem, and have access to a reliable economic opportunity. This is ultimately expected to have a positive impact on household



Figure 2: Picture from community centre run by Oxfam, which employ refugees and a community animator with CFW contracts (credit: Simone Lombardini).

income. Moreover, by engaging men and women, CFW activities are also expected to change the perception and attitudes towards women's economic role, and possibly increase women's willingness to participate in the labour market.

In order for these outcomes to materialize, there are a number of assumptions that must hold true.

1. There are no other income-generating activities available for refugees either inside or outside the camp.
2. The amount of cash and the time the workers are engaged is sufficient to change measurable consumption patterns within the household.
3. Refugees are accessing jobs requiring skills they did not have before.
4. New skills learned are useful and in demand.
5. All households within the camp are equally vulnerable.
6. All basic needs (from a humanitarian perspective) are covered.

## 3 Evaluation design

### 3.1 Quasi-experimental impact evaluation

The central problem in evaluating the impact of any project is how to compare the outcomes that result from that project with what would have been the case without that project having been carried out. In the case of this Effectiveness Review, information about the lives and livelihoods of project participants was collected through a household questionnaire but clearly it was not possible to observe what their situation would have been had they not had the opportunity to participate in the project. In any evaluation, that counterfactual situation cannot be directly observed: it can only be estimated.

In the evaluation of programmes that involve a large number of units (whether individuals, households or communities), it is common practice to make a comparison between units that were subject to the programme and those that were not. As long as the two groups can be assumed to be similar in all respects except for the implementation of the specific project, observing the situation of those where the project was not implemented can provide a good estimate of the counterfactual.

An ideal approach to an evaluation such as this is to select at random the areas in which the project is to be implemented. Random selection minimizes the probability of there being systematic differences between the project participants and non-participants, and so maximizes the confidence that any differences in outcomes are due to the effects of the project.

In the case of the project examined in this Effectiveness Review, the selection of the households involved in the project was not made entirely at random; in fact, respondents were chosen based firstly on their participation in CFW activities, and secondly on their status as semi-skilled, skilled, highly skilled and technical workers.

Discussions with the implementation staff revealed that there were other eligible households that had the potential to benefit from participation in the project, but, given that the number of CFW participants Oxfam employs at any given point in time is capped, they had not (yet) been given the opportunity to participate. These refugees, therefore, have not benefited from the project, even though they have characteristics similar to those of the project participants. This allowed a quasi-experimental evaluation approach to be adopted in which the situation of refugees not exposed to the project was assumed to provide a reasonable counterfactual for the situation of refugees who had participated in the project activities.

To improve the confidence in making this comparison, households with project participants from either skill level were matched with households with similar characteristics who had not participated using a statistical approach called propensity score matching (PSM). Section 5 will present more detail on this methodology.

### 3.2 SenseMaker component

This Effectiveness Review complemented its household survey with a short SenseMaker questionnaire. SenseMaker is a narrative method of enquiry aimed at capturing large amounts of short narratives and qualifying those narratives through interactive follow-up questions in an integrated fashion Guijt et al. (2019).

All respondents who participated in the household survey in this evaluation, both in the intervention and comparison groups, first provided a short narrative on accessing paid work since arriving in the camp. They then answered some pre-formulated and pre-tested follow-up questions relating to the narrative. These questions asked about the type of work sought, the primary motivation for pursuing this opportunity, and whether they succeeded in obtaining work as well as fulfilling their motivation reasons, and the degree to which they would recommend this type of paid work



opportunity. Questions aimed to provide more meaning and context to narratives and expand the analysis of narrative data by involving the respondent in the process.

SenseMaker is a research method based on emerging trends and patterns in the data. As such, it does not usually come with a preset analysis plan or list of outcome variables of interest. To stay true to the needs of this evaluation, the SenseMaker component of this review was purposefully kept very short. Besides the prompt for the narrative, it only contained six follow-up questions. All follow-up questions relate to the theory of change of this project, albeit in a more exploratory sense. The Effectiveness Review focuses on changes taking place at individual and household level, coming as a result of engagement with CFW activities, whereas the SenseMaker component prompts respondents to share information at the individual level.

At the most basic level, the theory of change behind Oxfam's CFW activities suggests that refugees in the most vulnerable households engage with semi-skilled CFW activities, providing access to working opportunities and to short term liquidity.

The SenseMaker component complements the impact evaluation analysis in two ways. First, it provides insights into why refugees chose certain work opportunities over others (be it CFW with Oxfam or other agencies, or non-CFW paid work). Second, to what extent their individual expectations of whatever work they undertook were fulfilled. Moreover, SenseMaker also has the advantage of giving a voice to people who are not normally heard and let them share a personal experience in a way that feels less extractive than can a purely quantitative survey.

## 4 Data

### 4.1 Sampling approach

The sampling strategy was designed to ensure a representative sample of households involved in the CFW activities for the intervention group, and to mimic the project participant selection process in the comparison group. This was split into intervention and comparison groups, and then into subgroups based on the type of work (skilled, highly skilled and technical, or semi-skilled).

1. Group A: Intervention group for the skilled, highly skilled and technical workers (target 250 respondents)
2. Group B: Comparison group for the skilled, highly skilled and technical workers (target 350 respondents)
3. Group C: Intervention group for the semi-skilled workers (target 350 respondents)
4. Group D: Comparison group for the semi-skilled workers (target 550 respondents)

Groups A and C are a random sample of project participants and represent the intervention group. From January 2017 to July 2018 Oxfam engaged 1,079 individuals in CFW activities (only 5 percent were women). The sample frame for Group A was composed of 298 workers engaged in skilled, highly skilled and technical contracts. The target was to achieve 250 interviews from this group; however, only 208 were achieved. It was not possible to conduct the interviews due to the following reasons:

- Moved out of the camp (13 percent)
- Not at home after visiting twice (40 percent)
- Refused (2 percent)

- Not identified (29 percent)
- Also part of group C (16 percent)

The remaining 559 respondents from the intervention group were engaged in semi-skilled contracts and are part of Group C. The target was to achieve 350 interviews, but only 344 were achieved. The reasons for not being able to interview the target sample were:

- Location not clear (12 percent)
- Moved back to Syria or out of the camp (9 percent)
- Moved to a different part of the camp (5 percent)
- Not at home after two visits (32 percent)
- Refused (5 percent)
- Other (37 percent)

Groups B and D represent the comparison group. They were identified to mimic the selection process of the project. As skilled, highly skilled and technical workers are selected from a recruitment process where the most qualified candidates get the job, respondents in Group B were selected from 286 refugees who applied for skilled, highly skilled and technical positions and met the minimum criteria to be employable with such criteria, but were not selected as there were not enough positions.

All eligible applicants for semi-skilled work are registered in a list, and they are engaged on a rotation base, depending on demand. For Group D, a list of all the households within camp in districts 6, 7 and 8 was obtained, which included more than 4,000 households. These were randomly selected and enumerators were instructed to interview the head of the household. Before proceeding with the interview, a screening question was added, asking if anyone in the household was engaged in any CFW activity. If the response was yes, then the interview was not conducted and the enumerator had to proceed to the following household on the list. A greater proportion of households was interviewed in Group D to compensate for the reduced number of observations from Group B.

Finally, Group B and Group D were further reduced as it was found during the interviews that for some observations someone in the household had engaged in CFW activities in the precious 12 months. Because of such a reduced sample it will not be possible to estimate the effect of the project for the group skilled, highly skilled and technical.

The full breakdown of refugees sampled and interviewed in intervention and comparison respondents is shown in Table 1.

Table 1: Sample size by group

<b>Group</b>	<b>Target</b>	<b>Interviewed</b>	<b>Observations</b>
A	250	208	208
B	286	156	83
C	350	344	344
D	614	754	501
	<b>1,500</b>	<b>1,476</b>	<b>1,136</b>

Table 2 provides summary statistics on some of the respondents characteristics. More than 95 percent of the respondents identified themselves as the head of the household, 82 percent are male, and the average age is nearly 40. Nearly 90 percent of the respondents considered

themselves fit to work, and approximately 40 percent of the respondents had been educated to primary level or above. Nearly 99 percent of the respondents arrived between 2011 and 2014, with the median being 2013.

More than 95% of the respondents identify himself as the head of the household, 82% is male, the average age is nearly 40. Nearly 90% of the respondents consider himself fit to work, and approximately 40% of the respondents has education greater than primary. Nearly 99% of the respondents arrived between 2011 and 2014, with the median being 2013.

Table 2: Respondent's characteristics

Variable	Mean	(Std. Dev.)	Min.	Max.	N
1[Respondent is household head]	0.956	(0.205)	0	1	1136
1[Respondent is male]	0.826	(0.38)	0	1	1136
Respondent's age	39.035	(12.051)	0	90	1136
1[Respondent is able to work]	0.896	(0.305)	0	1	1135
1[Respondent's education primary or more]	0.414	(0.493)	0	1	1136
1[Respondent arrived after 2014]	0.01	(0.098)	0	1	1136
Year of arrival	2013.287	(0.601)	2011	2018	1136

## 4.2 Fieldwork

A household questionnaire was developed by Oxfam staff, in collaboration with partners, to capture data on various outcome measures associated with the projects activities. Demographic data and recalled baseline data were also collected to control for differences between households in the intervention and comparison groups that could not plausibly be affected by the project. The questionnaire was pre-tested and then tested again by the enumerators during a practice exercise and revised accordingly. Data collection involved the use of mobile devices using SurveyCTO software. The enumerators participated in a three-day training workshop, which was led by Oxfam staff. The first and second days of the workshop involved training using the paper questionnaire and mobile phone devices respectively. The third day of the workshop involved a piloting exercise, where a community in Banibangou commune was identified. Following this exercise, the performance of each of the enumerators was reviewed individually before their appointments were confirmed. Enumerators were also trained SenseMaker interviewing methodologies. A SenseMaker component was included on each day of training, and a take-home guide distributed among enumerators. The consultant and two supervisors were repeatedly taken through the guide. This allowed the consultant to pilot both the SenseMaker component and the household survey among the project beneficiaries. The findings from the SenseMaker component are used in this review to provide more context to the quantitative findings in this report.

## 4.3 Outcome measure: Household income and wealth

This section presents how household income, which is the global output indicator for the Livelihood thematic area, is calculated. Measuring household income directly is problematic: self-reported measures of total income are generally regarded as unreliable, given the wide variety of endeavours such populations engage in to generate income. Most households in this sample were engaged in a range of livelihood activities; a direct income measure, therefore, needs to collect detailed information about the contribution of each of these activities to household income. Moreover, retrospective estimates of household income often suffer from recall bias, increasing the margin

of error of the estimates in question. Direct measures of income should, therefore, be taken with a pinch of salt.

Thus this Review followed the common practice in micro-level socio-economic analysis by considering household consumption and expenditure as another dimension of income.

To estimate household consumption, respondents were asked to provide detailed information about their recent expenditure on both food and non-food items. On the basis of a 14-item food list, respondents were asked to detail what foods they had consumed over the previous 30-day period, as well as the total value consumed in the household for each type of item. Then, they were asked about other typical non-food expenses, such as transportation and hygiene articles, and how much the household had spent on them in the previous 30 days. Finally, household consumption was also measured through a battery of questions on non-food expenses that typically occur less regularly, such as clothes, household equipment, furniture, building materials, sending money to relatives and others, that had happened in the previous six months.

The household consumption measure was calculated by converting expenditures into a per-day per-capita figure and then divided by a factor representing household size to generate a per-day per-person expenditure figure. Finally, this expenditure variable is expressed on a logarithmic scale to reduce the influence of outliers and express differences in terms of percentages.

An alternative measure to household income for evaluation proposes is household wealth. Household wealth is considered to provide a more long-term measure of household welfare, as it is less volatile and less subject to seasonal fluctuations and shocks compared with measures of household consumption. In the questionnaire, respondents were asked to provide information about their households ownership of various assets (including household appliances, TV or radio sets and bicycles), as well as about the conditions of the family's house back in Syria in 2014 (when CFW activities started) and at the time of the survey. This information on asset ownership and housing conditions was used to generate an index of overall household wealth.

A wealth index was generated using a data reduction technique called principal component analysis (PCA). The wealth index is taken directly from the first principal component. To capture as much information as possible from the data, PCA enables weights to be assigned to the different assets. Broadly, PCA assigns more weight to those assets that are less correlated with all the other assets, as these carry more information. By contrast, items with more intra-correlation are given less weight. In order to ensure that the same weights were applied to assets for both the recalled wealth index and the wealth index for the time of the survey, data from these two time periods were pooled before undertaking the PCA procedure. This means that changes in wealth can be more easily compared over time. The wealth index for 2014 is the measure that has been used throughout this analysis to control for baseline differences in wealth status between project and non-project households.

## 5 Estimation strategy

### 5.1 Propensity score matching

The results presented in the sections below are estimated using propensity score matching (PSM). PSM is a statistical technique that allows the effect of an intervention to be estimated by accounting for the covariates that predict receiving the intervention, or treatment. The idea behind PSM is to match similar individuals in the treatment or intervention group to those in the control or comparison group, based on observed characteristics at baseline. After each participant is matched with a non-participant, the average treatment effect on the treated (those who benefited from the intervention) is equal to the difference in average outcomes of the intervention and the comparison groups after

project completion. This section describes and tests the specific matching procedure employed in this Effectiveness Review.

Rosenbaum and Rubin (1983) suggested implementing the matching procedure in two steps. In the first stage a propensity score is estimated, while in the second stage observations are matched on the basis of their propensity score. A practical guide on the different approaches to matching may be found in Caliendo and Kopeinig (2008). Table 3 shows the results of the probit regression model used to estimate the propensity scores. This reports the marginal effects at the mean and the corresponding standard errors. Following Caliendo and Kopeinig (2008), only variables that influence the participation decision, but are not affected by participation in the project, were included in the matching model.

Table 3: Estimating propensity score

	Marginal effect	Standard error	p-value
intervention			
1[Respondent is male]	0.28***	0.05	0.00
Respondent's age	-0.00**	0.00	0.00
1[Respondent has education greater than primary]	-0.02	0.04	0.56
1[Respondent is able to work]	0.15*	0.06	0.02
1[Respondent is household head]	-0.28***	0.06	0.00
HH size	0.02**	0.01	0.01
1[HH in the 1st wealth quintile]	-0.10*	0.05	0.04
1[HH in the 2nd wealth quintile]	-0.03	0.07	0.62
1[HH in the 4th wealth quintile]	-0.10	0.06	0.08
1[HH in the 5th wealth quintile]	-0.13*	0.06	0.02
1[Rural]	-0.06	0.04	0.17
1[Occupation in Syria == Agriculture]	-0.17**	0.06	0.00
1[Occupation in Syria == Informal Sector]	-0.11	0.06	0.05
1[Occupation in Syria == Formal Sector]	0.00	0.06	0.96
1[Household involved in income source 7 in 2014]	-0.28***	0.06	0.00
district==District 6	-0.68***	0.05	0.00
district==District 7	-0.65***	0.05	0.00
district==District 8	-0.75***	0.05	0.00
hhharrivalafter2014	0.01	0.17	0.93
Observations	1135		

#### Marginal effects

The construction of the wealth index is described in Section 5. Variables based on recall data.

Dependent variable is binary, taking 1 for project participant households, and 0 otherwise.

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Matching was performed on the basis of a variety of characteristics, including household size, level of education and indicators of material well-being, such as housing conditions and ownership of assets. Since some of these characteristics may have been affected by the project itself (particularly those relating to wealth indicators), matching was performed on the basis of these indicators before the implementation of the project in 2014. Baseline data were not available, and so survey respondents were asked to recall some basic information about their households situation from 2014, before the project was implemented. While these recall data were unlikely to be completely accurate, this should not have led to significant bias in the estimates as long as the measurement

errors due to the recall data were not significantly different for the project participants and the comparison group.

Predicted outcomes represent the estimated probability of participation in the project for each observation in the sample. It must be noted that estimated outputs in the participation model (such as t-statistics and adjusted R2) are not very informative and they might be misleading (Khandker et al. (2010)). The key objective is to find an adequate model that achieves a balance of mean propensity scores and mean covariate outcomes across the treatment and matched controls.

After estimating the propensity scores, it is necessary to verify that there is a potential match for the observations in the intervention group with those from the comparison group. This means checking that there is common support. The area of common support is the region where the propensity score distributions of the intervention and comparison groups overlap. The common support assumption ensures that each intervention observation has a comparison observation nearby in the propensity score distribution (Heckman et al. (1999)).

Figure 3 shows a histogram of propensity scores in the intervention and comparison groups. It can be observed that, the distributions of propensity scores are somehow different between the intervention and comparison groups, with a significant proportion of respondents excluded from the intervention group as being outside the common support area.

The second step suggested by Rosenbaum and Rubin (1983) is to match observations on the basis of their propensity scores. The literature has developed a variety of matching procedures. After a series of checks, it was decided to employ the kernel matching algorithm for the results presented in this Effectiveness Review. Kernel matching assigns more weight to the closest comparison group observations that are found within a selected bandwidth. Thus, good matches are given greater weight than poor matches. The evaluation team used the psmatch2 module (Leuven and Sianesi (2018)) in Stata and restricted the analysis to the area of common support. When using PSM, standard errors of the estimates were bootstrapped using 1,000 repetitions, to account for the additional variation caused by the estimation of the propensity scores.

For PSM to be valid, the intervention group and the matched comparison group need to be balanced. In other words, the intervention and comparison groups need to be similar in terms of their observed characteristics. The most straightforward method of doing this is to test whether there are any statistically significant differences in baseline covariates between the groups in the matched sample. There are no statistically significant differences between the intervention and comparison groups for any of the matching variables used in the matched sample.

After matching, project participant households and comparison households appeared to be reasonably well balanced in terms of each of the selected variables. One caveat is that 56 of the 552 project households and 38 of the 584 comparison households in the sample had to be dropped from the analysis. The exclusion of 10 percent of the intervention group is likely to have some bias on the main findings, which are likely to be less representative for those households that are most likely to be involved into the project.

Finally, it is important to highlight again that both PSM and multivariate regression rely on the assumption that the observed characteristics (those that are collected in the survey and controlled for in the analysis) capture all of the relevant differences between the two groups. If there are unobserved differences between the groups that matter for project participation, then estimates of outcomes derived from them may be misleading. Unobserved differences between the groups could potentially include differences in attitudes or motivation (particularly important when individuals have taken the initiative to participate in a project), differences in community leadership or local-level differences in wealth or other contextual conditions faced by households.

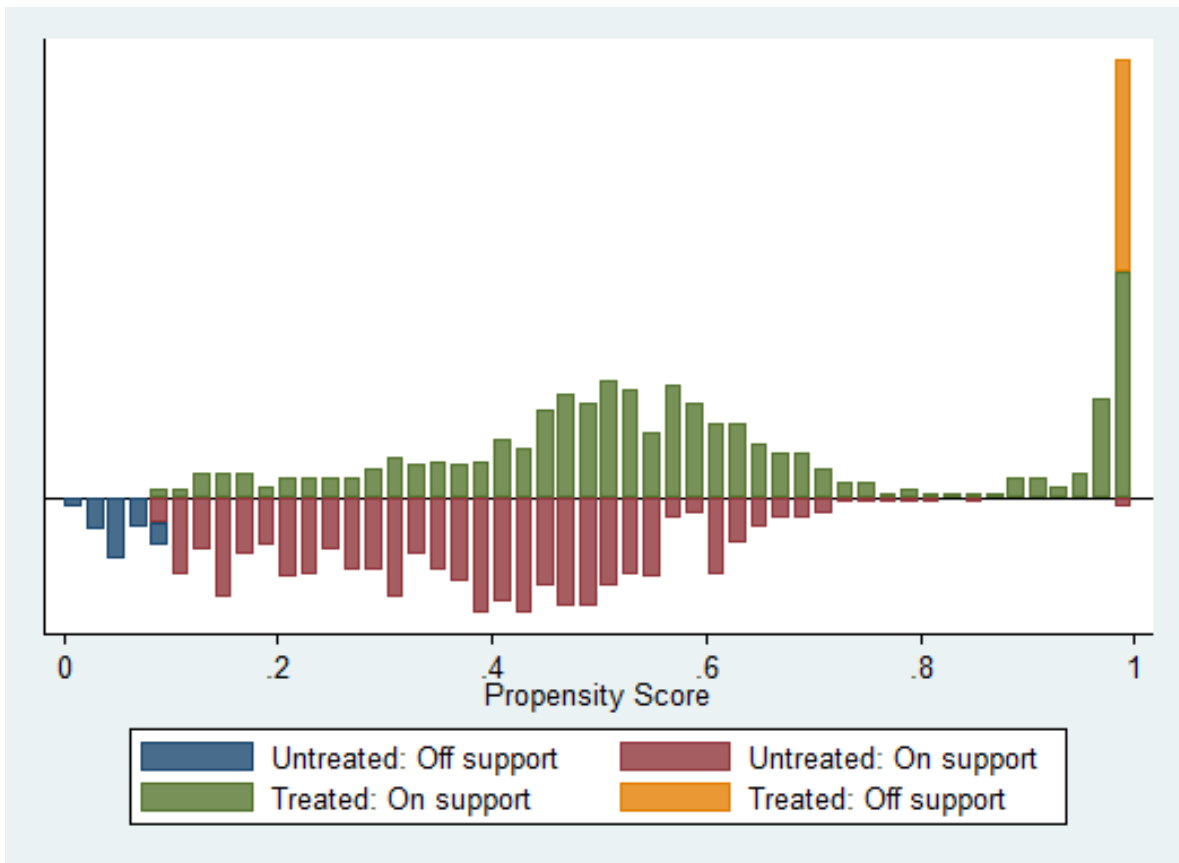


Figure 3: Propensity score on and off area of common support

## 5.2 SenseMaker

The data from the household survey after PSM was then matched with data from the SenseMaker component. Because of IDs mismatching, the overall sample for the SenseMaker data was reduced to 1,075 observations. Data from this component were phrased as simple multiple-choice questions as well as visual question types, including so-called dyads and triads. They involve the respondent by having them place a marker on a spectrum between two extremes and within or on the apices of a triangle with three distinct answer options respectively. The idea behind these types of questions is that rather than being mutually exclusive, several elements can be present in a respondent's experience at the same time, and to different degrees. Since answers are captured by SenseMaker software as either categorical variables or as numerical coordinates, quantitative analysis is not only possible but relatively straightforward. First-hand narratives illustrate the experiences from refugees in trying to obtain paid work since arriving in the camp in their own words. Automated Text Analysis from these stories will be conducted as part of a separate analysis.

## 6 Impact of the project

This section presents the results of the main evaluation questions, meaning the impact of Oxfam's CFW activities in the Za'atari camp on household income, as well as the impact of CFW activities on secondary outcomes as highlighted in the theory of change in 2.

Table 4: Household consumption and wealth

	(1) Log(Total consumption - daily per capita)	(2) Change in household wealth
Intervention mean	1.01	0.28
Comparison mean	1.08	-0.04
Difference:	-0.08 (0.05)	0.31*** (0.10)
Obs (intervention)	497	497
Obs (total)	1042	1042

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

The impact on specific indicators is estimated by comparing a sample of the households involved in the project with a matched sample of comparison households. The results are shown after correcting for observed baseline differences between the households interviewed in the project communities and those in the comparison communities, using the PSM procedure presented in section 5.

## 6.1 Household consumption and wealth

As presented in Section 4, estimates for household consumption and household wealth are commonly used for estimating household income. Table 4 provides estimates for total household consumption and change in household wealth, for both households involved in the project and comparison households.

Estimates in the first column suggests that, on average, there is a negative but not significant difference in household consumption between project participants and comparable households. On the other hand, estimates on household wealth suggest that there is a positive and significant difference in change in household wealth between 2014 and the time of the survey between the intervention and comparison groups.

This provides evidence that households that have been involved in CFW activities have increased their wealth significantly more than comparable households that were not involved in CFW activities. Similar estimates are obtained when comparing semi-skilled workers only.

## 6.2 Income Sources

In order to explain differences in wealth presented in the section above, it might be useful to explore the income channels in which intervention and comparison households are engaging. Table 5 shows the differences between intervention and comparison households in terms of engagement in CFW and other income channels except CFW, while Table 6 presents mean differences and total household income over the past year and its log transformation.

The first column in Table 5 confirms that, as we would expect from the sampling strategy, there are no households that participated in CFW in the past 12 months in the comparison group, whereas most respondents (75 percent) in the intervention group reported at least one family member participating in CFW activities. The second column provides evidence that 97 percent of the households in the intervention group and 85 percent in the comparison group have at least one



Table 5: Household income

	(1) 1[Household engaging in CFW in past 12 months]	(2) 1[Any income]	(3) 1[Any other income] except CFW]
Intervention mean	0.76	0.97	0.66
Comparison mean	0.00	0.85	0.85
Difference:	0.76*** (0.02)	0.12*** (0.02)	-0.19*** (0.03)
Obs (intervention)	497	497	497
Obs (total)	1042	1042	1042

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

Table 6: Household income (cont)

	(1) Total household income from all sources	(2) ln(Total household income from all sources in lat 12 months)
Intervention mean	932.22	6.55
Comparison mean	803.43	6.32
Difference:	128.79 (148.31)	0.23*** (0.08)
Obs (intervention)	497	485
Obs (total)	1042	943

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

household member involved in one income stream <sup>1</sup> with a statistically significant difference of 12 percentage points.

The third column provides evidence that in the intervention group, 66 percent of households sourced income from income channels other than CFW. This share of households engaging in income channels other than CFW is nearly 20 percentage points higher in the comparison group. This difference is statistically highly significant. This is mainly driven by other sources of income outside the camp, both for the intervention and comparison group <sup>2</sup>.

Table 6 provides evidence that when combining several household income streams, it appears that on average income from all income sources is 23 percent higher in the households that were involved in CFW than in the comparison group<sup>3</sup>. These results indicate that, all else being equal, CFW is indeed an important source of income for families.

<sup>1</sup>The questionnaire investigated 15 different income streams including, among others: CFW schemes, agriculture inside and outside the camp, services, business shops or street vending.

<sup>2</sup>We also tested for differences on child labour without finding any significant difference between intervention and comparison groups.

<sup>3</sup>The discrepancy between the first and second column in table 6 is likely due to outliers, which are accounted for using the logarithmic transformation

### 6.3 Opinions on sufficiency of income and CFW programmes

This section of the report presents the findings relating to the sufficiency of income expressed with respondents subjective assessment. The household questionnaire asked all respondents to answer the following question: *Would you consider that the income raised by your family jointly with the assistance, services and goods provided in the camp are sufficient to cover all the basic needs for your family?* It then asked respondents to specify what they considered to be the minimum monthly household income to cover their household needs.

Estimates in Table 7 suggest that in both the intervention and comparison groups the share of respondents indicating their household income was sufficient was low (16 percent and 11 percent respectively). This share is marginally higher in the intervention group than in the comparison group. Interestingly, column 2 of Table 7 shows that there is no difference in the stated mean minimum monthly income needed between project households and comparison households as expressed in JOD, which is estimated to be approximately JOD 50 (\$70) per person per month.

Table 7: Opinions on sufficiency of income

	(1)	(2)
	1[Sufficiency of income]	Minimum monthly income per-capita
Intervention mean	0.16	49.88
Comparison mean	0.11	49.60
Difference:	0.05*	0.27
	(0.03)	(2.29)
Obs (intervention)	497	497
Obs (total)	1042	1042

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

This evaluation aimed also to uncover respondents opinions on a variety of features of CFW programmes beyond their function as income-generating sources. Table 8 shows the share of respondents who strongly agreed with each of the four statements on how CFW programmes are run and treat participants:

1. Agencies (not limited to Oxfam) operate fair and accessible CFW programmes.
2. Agencies treat CFW workers with respect and dignity.
3. CFW programmes provide a safe environment.
4. CFW programmes give women equal access.

Estimates in Table 8 provide evidence that households involved in CFW are more likely to score highly on all four statements above compared with the comparison group that did not participate in CFW activities. On average, in the intervention group, 49 percent of the respondents agreed with the statement that agencies operate fair and accessible CFW programmes; 46 percent strongly agreed with the statement that agencies treat CFW workers with respect and dignity; finally 42 percent and 44 percent agreed with the statement that programmes provide a safe environment and give women equal access. It is important to remember that these estimates are referring to responses that are strongly agreeing with the statement. All the respondents from the intervention group, and 98 percent of the respondents in the comparison group reported agreeing or strongly agreeing with statements 2, 3, and 4.

Table 8: Opinions towards CFW (strongly agree only)

	(1) 1[Fair and accessible]	(2) 1[Respect and dignity]	(3) 1[Safe]	(4) 1[Equal access]
Intervention mean	0.49	0.46	0.42	0.44
Comparison mean	0.27	0.31	0.29	0.33
Difference:	0.22*** (0.04)	0.15*** (0.03)	0.13*** (0.04)	0.11*** (0.04)
Obs (intervention)	497	497	497	497
Obs (total)	1042	1042	1042	1042

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

## 6.4 Learning new skills and self-esteem

Based on the theory of change beyond the monetary outcomes of interest for this review, there was a range of skills and subjective measures of well-being that participation in CFW activities was hoping to improve. Especially among the more skilled and technical CFW workers, participation in project activities was expected to improve a range of soft skills and proficiency at clerical tasks:

1. Manage and lead people in a team.
2. Engage and communicate with people.
3. Work with Excel and handle other computer software.
4. Conduct technical works, such as plumbing, welding, sort recycling, sewing, embroidery, etc.

These skills were captured by asking respondents to rate their ability on a scale from 0 to 10 (where 0 is not confident at all and 10 is fully confident) in 2014 and now. Estimates were then computed on the proportion of respondents who reported improvements in their abilities.

Table 9: Impact of CFW on learning new skills

	(1) 1[Manage people]	(2) 1[Communicate]	(3) 1[Software]	(4) 1[Technical work]
Intervention mean	0.19	0.15	0.06	0.26
Comparison mean	0.25	0.23	0.05	0.21
Difference:	-0.07 (0.07)	-0.08 (0.07)	0.01 (0.02)	0.05 (0.07)
Obs (intervention)	497	497	497	497
Obs (total)	1042	1042	1042	1042

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

As can be seen in Table 9, there is no evidence that participating in CFW activities significantly increased the likelihood for project participants to state that they were better at managing people

or leading a team, communicating and engaging better with others, improving their software skills or improving at technical work, like plumbing<sup>4</sup>.

Respondents were also asked to state to which degree they agreed with the following statements aimed at measuring self-esteem:

1. I feel that I make a positive contribution to my familys life.
2. I feel that I have a number of good qualities.
3. I am able to act in any situation in the same way as most other people.
4. On the whole, I am satisfied with myself.

(41 percent of respondents in the intervention group strongly agreed with the sentence ).

compared with 31 percent in the comparison group

Table 10 provide estimates of the proportion of respondents that strongly agreed with the statements above. It appears that there is limited evidence that participating in CFW activities significantly increased measures of self-esteem, except for the first indicator (41 percent of respondents in the intervention group strongly agreed with the sentence *I feel that I make a positive contribution to my familys life*, compared with 31 percent in the comparison group)<sup>5</sup>.

Table 10: Impact of CFW on measures of self-esteem

	(1) 1[Positive contribution to the family]	(2) 1[Feel positive qualities]	(3) 1[Feel able to act]	(4) 1[Feel satisfied]
Intervention mean	0.41	0.56	0.32	0.58
Comparison mean	0.31	0.48	0.37	0.48
Difference:	0.10** (0.04)	0.08 (0.07)	-0.05 (0.07)	0.10 (0.07)
Obs (intervention)	497	497	497	497
Obs (total)	1042	1042	1042	1042

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

## 6.5 Opinions on gender equality

This section considers how womens roles were viewed by respondents in both the intervention and comparison groups. The evaluation wanted to test if increased womens participation in CFW changed opinions and beliefs of mens and womens roles in the workplace. This hypothesis was tested by a range of questions with binary answers respondents had to choose which of the two statements they most agreed with:

1. Women are by nature better at housework and looking after children and dependent adults than men OR men should be supporting women at housework and looking after children and dependent adults.

<sup>4</sup>As we will discuss in Section 8, this estimates differ when estimating the group of semi-skilled workers only, finding a positive and significant result on conducting technical work, with 24 percent of the respondent in the sample reporting greater knowledge on technical skills.

<sup>5</sup>When restricting the analysis to the group of semi-skilled workers, it appears there is a positive and significant impact on the second and fourth measure for self-esteem.

2. The natural place for women is the household OR women can engage in paid work just like men.
3. It is acceptable for men and women to work in the same place OR men and women should not be mixed in workplaces.

It is important to remember that more than 80 percent of the respondents of the survey were men. Consequently, questions were tailored to be relevant irrespective of the gender of the respondent.

Table 11: Impact of CFW on womens empowerment

	(1) 1[Woman involved in income generating activities]
Intervention mean	0.21
Comparison mean	0.10
Difference:	0.11*** (0.02)
Obs (intervention)	497
Obs (total)	1042

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

Table 11 provides evidence that households involved in CFW have a higher proportion of women involved in income economic activities (21 percent in the intervention group, against 10 percent in the comparison group). Estimates from Table 12 provide no evidence that respondents involved in CFW activities have views and opinions that indicate higher gender equality. On the contrary, it appears that there are more respondents from the comparison group that reported that men should support women at house and care work, compared with respondents from the intervention group<sup>6</sup>.

Table 12: Impact of CFW on womens empowerment

	(1) 1[Men should support with care work]	(2) 1[Women can engage in paid work]	(3) 1[Men and women can mix in workplace]
Intervention mean	0.60	0.53	0.41
Comparison mean	0.68	0.55	0.42
Difference:	-0.08** (0.04)	-0.02 (0.05)	-0.02 (0.07)
Obs (intervention)	497	497	497
Obs (total)	1042	1042	1042

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

<sup>6</sup>When restricting the analysis to the sample for semi-skilled workers it appears that project exposure had a positive and significant effect on changing opinions on women's economic role, with project participants 8 percentage points more likely to report that women can engage in paid work like men.

## 7 SenseMaker

This section presents the results from the SenseMaker component, aiming to explore the stories experienced by refugees in trying to access paid work in the camp, understanding their motivation and pursuing paid work opportunities, and to what extent they achieved their goals.

The SenseMaker component includes first-hand narratives shared by respondents in response to the story prompt: *I am going to ask you for an example of trying to access paid work since you arrived in the camp. What I mean by paid work is any work or activity compensated with money, goods, or services. It can, but it doesn't need to be, Cash for Work (CFW). It can be in or outside the camp. This can be a positive or negative example. Can you share one such example with me? What work was/is it? What was/is the result of it? How do you see this experience?*

The SenseMaker methodology consists of analysing the follow-up questions the respondents are requested to answer, with codifying based on the story they provided. This information is based on a self-signification framework. When designed well and administered correctly, the data resulting from this self-signification process can reveal additional layers of meaning and quantifiable trends.

In this review, following the prompt, the self-signification framework provided information about the following:

1. Whether the story is about CFW (with Oxfam or with other agencies) or about other work.
2. If the story is about work inside/outside the camp.
3. If the respondent did carry out the work.
4. What the respondent was mainly trying to achieve (triad).
5. If that goal was eventually achieved (slide).
6. Whether the respondent would recommend to other friends (slide).

The information provided in the self-signification framework was typically analysed with a mix of visual representation, statistical analysis and story enquiry. Something not common for the SenseMaker methodology is to analyse and compare the data with a quasi-experimental design. Fuller and Pretari (2018) explored something similar in a previous Effectiveness Review in Burkina Faso. In this analysis, information that is typically analysed with the support of visual aids, is now analysed using the same econometric model employed for the quasi-experimental quantitative component. It is important to note that the sample size is smaller than the overall sample for the household survey due to matching issues when merging household survey data with SenseMaker data. Useful learning for future evaluations aiming to replicate this analysis is to stick to only one data-collection tool, rather than aiming to merge household and SenseMaker data.

### 7.1 Micro-narratives

While textual analysis is not routinely part of the SenseMaker analysis, we will share some stories for illustration purposes, to provide some contextual understanding behind the estimates of increase in household wealth.

Figure 4 provides the frequency distribution for the changes in household wealth from 2014 to 2018 for our sample of project participants. As shown from the estimates in Table 4, the average change in household wealth was higher for households involved in CFW activities compared with similar households that did not participate in CFW. However, this effect is unlikely to be homogeneous across all the project participants. We are using stories provided in the SenseMaker component to unpack differences in the experiences of refugees who presented different levels of changes in wealth over time.

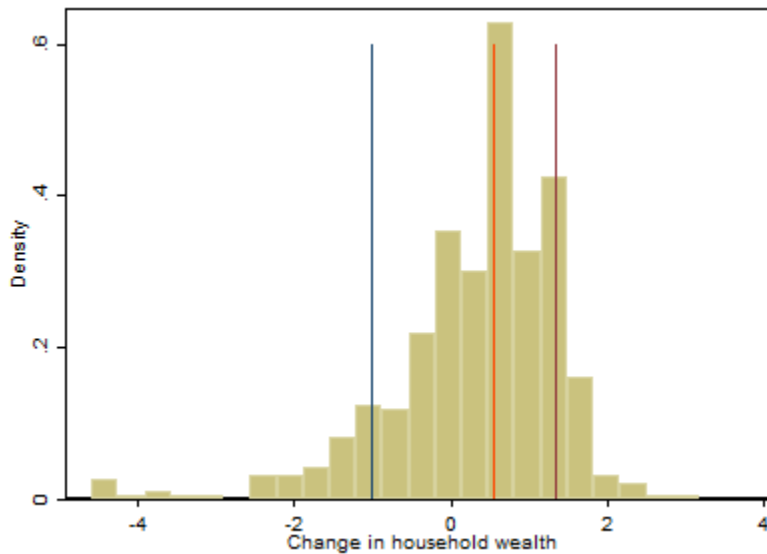


Figure 4: Histogram change in household wealth (intervention group only)

The blue line in Figure 4 is drawn on the 10th centile of the distribution for the intervention group, representing those refugees with the smallest increases in household wealth. The red line is drawn on the median on the distribution. Finally, the maroon line represents the 90th percentile, meaning those refugees with the highest increase in household wealth. The micro-narratives below will provide short stories from project participants from around the 10th, 50th and 90th percentile in the distribution of change in wealth.

**Stories from the bottom 10th centile (blue line):**

- *When I arrived I worked as a cook in the hospital of Doctors Without Borders. Then, I worked with UNICEF as a cleaner in schools. Then as a safety worker with Oxfam for the construction and they paid me JOD1/hour for 5 hours of work. It was hard working under the sun.*
- *I worked as a sanitation contractor at the beginning with Oxfam and then as a guard with the Medical Commission and in carrying goods in warehouses for one month. As for the income, what was earned was always spent. It was OK.*
- *I worked as a driver on a water tank for 6 months with International Relief and Development and it was a positive experience and good income.*

**Stories from the median (red line):**

- *I looked for a job and applied to Oxfam. I was trained to be a health educator and I was employed and happy, but now I'm negatively affected by leaving work.*
- *I looked for a job with Oxfam and was hired as a guard. I was satisfied until they cancelled my contract. Then I started working in harvesting vegetables, which is not a consistent job and is not well-paid. I have illnesses and I need to find a job that suits my condition. The work in harvesting vegetables has affected me and my family negatively.*
- *I worked with Oxfam for three years, I finished six months ago. I worked in sanitation then I was promoted to be a supervisor because of my past experience. Moderate income but good work environment. My contract ended and I am seeking to return to Oxfam.*

### Stories from the 90th centile (maroon line):

- *I work in the recycling station with Oxfam and I filter the materials. It is good work but hard.*
- *I worked with Oxfam as a guard then on the recycling project for six months. I stopped working for them this year. The experience was a good experience.*
- *I worked with Oxfam and I faced some difficulties because I also ran my own business. It was a positive experience, but I did not develop my skills.*
- *I work until now in Oxfam as a guard for Sector 6 for three months. My contract is for six months. I was thinking of opening a small business to sell clothes before I was appointed at Oxfam.*
- *I work collecting tomatoes and vegetables outside the camp for short periods of time.*

## 7.2 Self-signification analysis

In this section we report the analysis for the self-signification framework.

Table 13: Self-signification about the story

	(1) 1[The story is about CFW]	(2) 1[The story is about work within the camp]	(3) 1[Carry out the work]
Intervention group mean	0.71	0.88	0.86
Comparison group mean	0.24	0.50	0.80
Difference:	0.47*** (0.04)	0.37*** (0.05)	0.07** (0.03)
Observations (intervention group)	471	471	471
Observations (total)	987	987	987

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ ; PSM estimates are bootstrapped with 1,000 repetitions.

The first column in Table 13 shows the proportion of respondents from the intervention and comparison groups who reported a story about CFW. It appears that more than 70 percent of the respondents in the intervention group told a story about CFW, compared with less than 24 percent in the comparison group. According to the second column in Table 13 it appears that over 88 percent of the respondents in the intervention group presented a story about work within the camp, while only half of the respondents in the comparison group reported a story about work within the camp. This could be interpreted that refugees not involved in CFW are aiming equally to find jobs inside as well as outside the camp. Finally, for both intervention and comparison groups, the proportion of respondents who reported the work was carried out is over 80 percent.

Figure 5 is providing a visual representation about the question investigating what was the main aim that the respondent was trying to achieve in their story. The options ranged from getting access to material resources (e.g. money, goods, etc.) to learning something for the future (e.g. skills, network, access to people, etc.) to finally feeling better at that moment (e.g. have things to do, meet people, independence, leave the house, etc.). The triad on the left represents observations from the comparison group, while the triad on the right represents observations from the intervention group, where each dot represents one respondent.

While it is visually apparent that most of the responses are gravitating towards the option indicating accessing greater resources, and to a certain extent learning, it is difficult to test whether this trend



is different for the intervention group compared with the comparison group. The first column in Table 14 provides a numerical interpretation of the visual representation in Figure 5. This is obtained by generating a variable which takes a value equal to 1 when the response in the triad is placed closer to the bottom-left angle than any other angle, and 0 otherwise. It appears that 76 percent of the respondents in the intervention group (those involved in CFW activities), indicated that the main reason they were seeking a job was to access material resources (e.g. money, goods, etc.). This is compared with almost 70 per cent in the comparison group. This difference, however, is not statistically significant.

Table 14: Self-signification about the story (continue)

	(1) 1[Seeking resources - dominant]	(2) Extend achieved goal (1-100)	(3) Would recommend to a friend (1-100)
Intervention group mean	0.76	59.37	68.60
Comparison group mean	0.69	55.20	62.61
Difference:	0.06 (0.07)	4.85* (2.50)	6.47*** (1.94)
Observations (intervention group)	458	450	451
Observations (total)	942	928	925

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

Figure 6 provides a visual representation of the responses to the question about to what extent the respondent achieved what they were seeking. The histogram on the left refers to responses from the comparison group; the one on the right is for the intervention group.

From a purely visual interrogation of Figure 6 there seem to be more people in the intervention group who achieved their goals while seeking work (this being getting access to material resources, learning, or feeling better). This is confirmed by the second column in Table 14, which compares the average numerical value assigned for the same measure, with the highest values indicating that the respondents entirely achieved what they were seeking, and lowest indicating they did not achieve it at all. On average, respondents from the intervention group reported higher values compared with comparable refugees not involved into the project. This, however, is just marginally significant, at the 10 per cent level.

Finally, Figure 7 provides a visual representation of the responses to the question asking if they would recommend friends in a similar situation to pursue similar work to the one in the story. Again, the histogram on the left refers to responses from the comparison group, while the on the right is for the intervention group. As clearly appears from the visual representation, as well as from the estimates in the third column in Table 13, project participants are significantly more likely to recommend friends in a similar situation pursue similar work to the one in the story (which is mainly about CFW).

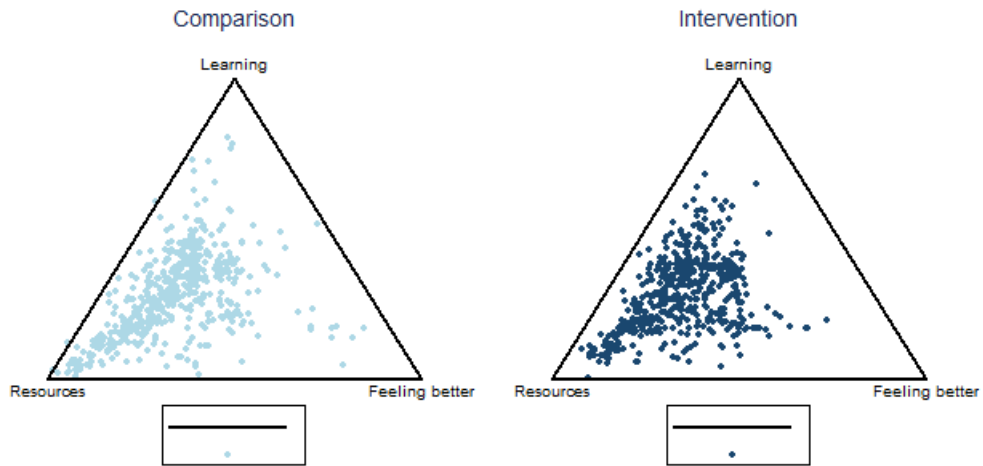


Figure 5: Triad. In your story, when were you trying to access work, what were you mostly seeking?

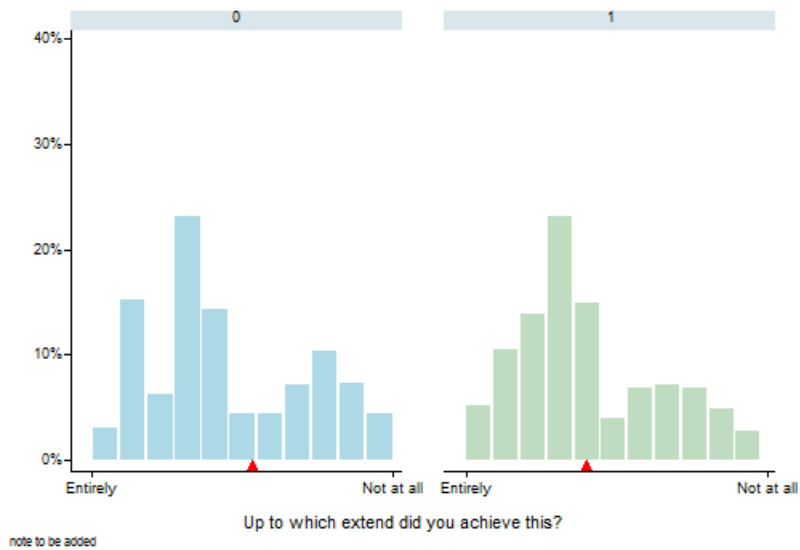


Figure 6: Histogram. In your story, up to which extent did you achieve this?

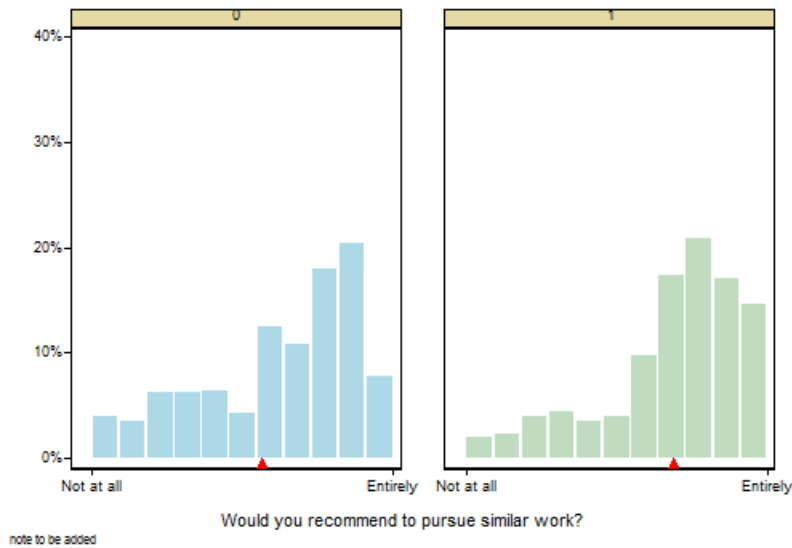


Figure 7: Histogram. Would you recommend friends in your situation to pursue similar work to the one in your story?

## 8 Other evaluation questions

This section responds to the remaining evaluation questions that were raised by the programme team as part of this evaluation.

### 6. Are CFW activities reaching the most vulnerable households across all skill levels?

There are valid concerns that CFW is failing to engage the most poor and vulnerable households in the camp. This concern is mainly driven by the fact that the selection process for skilled, highly skilled and technical workers is based on the candidates experience rather than on a vulnerability assessment. We tested this hypothesis by estimating the household and individual characteristics that predict being enrolled in CFW in the past 12 months. It appears that on average, male respondents are 16 percentage points more likely to be enrolled in CFW than women. Not surprisingly, more educated refugees are also more likely to be enrolled in CFW activities, with respondents having a primary education being 14 percentage points more likely to be enrolled in the CFW. On average, refugees coming from rural areas in Syria are also less likely (10 percentage points) to engage in CFW activities. Finally, households who were involved in business shops and other types of work outside the camp were significantly less likely to engage in CFW activities.

This seems to suggest that CFW is seen as a viable opportunity for refugees who are not working outside the camp, attracting mostly male and relatively educated refugees. There is, however, a question as to whether such a targeting strategy is appropriate for a longer-term social protection programme.

Table 15: Probability of engaging in CFW in the past 12 months

	Marginal effect	Standard error	p-value
1[Households engaging in CFW in past 12 months]			
HH size	0.68	28.07	0.98
1[Respondent is male]	0.16***	0.04	0.00
Respondent's age	0.02	0.01	0.10
Respondent's age2	-0.00*	0.00	0.02
1[Respondent is able to work]	0.14*	0.06	0.02
1[Respondent has education greater than primary]	0.14***	0.03	0.00
Wealth index 2014 normalised	0.02	0.02	0.31
Wealth index Syria normalised	0.00	0.02	0.82
1[Rural]	-0.10*	0.04	0.02
1[Occupation in Syria == Agriculture]	-0.06	0.06	0.30
1[Occupation in Syria == Informal Sector]	-0.00	0.06	0.96
1[Occupation in Syria == Formal Sector]	0.08	0.06	0.20
1[HH involved in services in 2014]	-0.26*	0.13	0.05
1[HH involved in business shops in 2014]	-0.35***	0.06	0.00
1[HH involved in agricultural work outside the camp in 2014]	-0.27***	0.05	0.00
1[HH involved in non-agricultural work outside the camp in 2014]	-0.32***	0.06	0.00
1[HH involved in other work outside the camp in 2014]	-0.00	0.19	1.00
1[HH received remittances in 2014]	-0.25*	0.10	0.01
1[HH involved selling food in 2014]	-0.09	0.06	0.13
1[HH involved other sources of income in 2014]	-0.28*	0.12	0.03
1[HH arrived after 2014]	-0.14	0.14	0.33
Observations	1053		

## Marginal effects

The construction of the wealth index is described in Section 5. Variables dated 2010 are estimates, based on recall data. Dependent variable is binary, taking 1 for project participant households, and 0 otherwise.

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

## 7. Is the duration and frequency enough to increase household income?

This question comes from the recognition that for semi-skilled workers, engagement in CFW activities is sporadic. In our sample, refugees had engaged as semi-skilled workers in CFW activities for on average four months in the previous 12 months. The median yearly earnings from CFW for semi-skilled workers in our sample is JOD 360 (approximately \$500), compared with a median yearly earning of JOD 1,080 (\$1,500) for skilled, highly skilled and technical workers. We also ran the same analysis presented in Section 6, but focusing only on Group C and D, the semi-skilled group. Full results are reported in the appendix 10. We found that the impact on change in household wealth is still positive and significant. However, the positive and significant impact found on overall income sources given in Table 6 is no longer significant when focusing only on semi-skilled workers. Opinions on sufficiency of income and CFW programmes remain unchanged compared with the overall sample. We find that there is a positive and significant effect on self-reported skills in conducting technical work, as well as on two indicators of self-esteem. Finally, we found a positive and significant impact on womens participation in the labour force and on opinions of womens economic role. While the positive results on income disappear when looking only at workers with the lowest earnings, there seem to be positive and significant results on skills, self-esteem and opinions of womens economic role, which were not present when focusing on the entire sample including also skilled, highly skilled and technical workers.

## 8. What are the other economic opportunities for refugees in the camp?

Income activities and labour participation for refugees in the camp is highly influenced by legislation from the Jordanian government, which defines the parameters and channels in which refugees can engage.

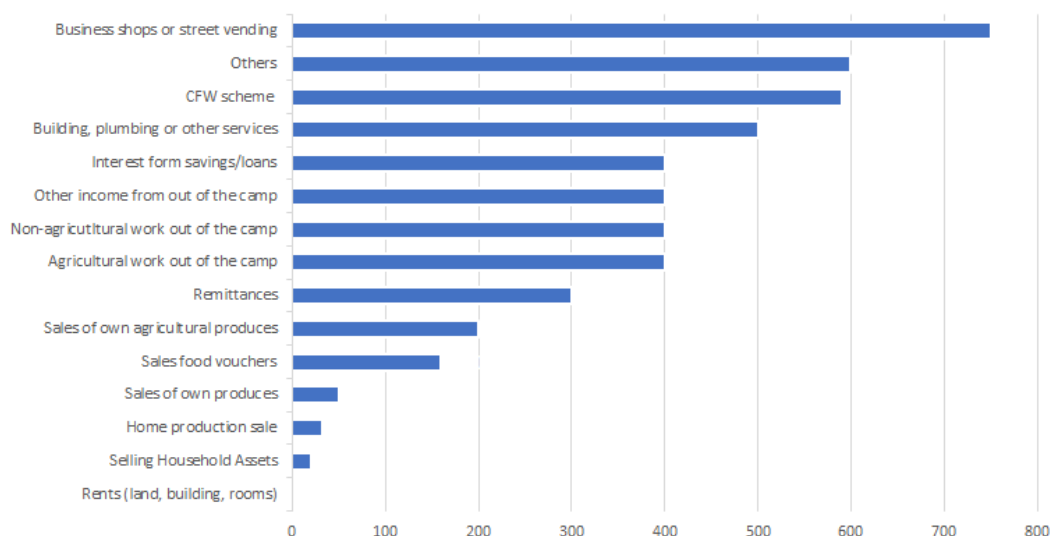


Figure 8: Median income by income channel

Figure 8 shows the median distribution of household income (in JOD) from each of the 15 specified income sources in the household survey for the whole sample. It is important to note that income sources from CFW are comparable with other sources of income, such as income from sales of agricultural products, income from taxi driving, building, plumbing or other services, and income from business shops or other street vending.

## 9 Conclusions

This evaluation has found evidence that CFW activities conducted in the Za'atari camp had a positive and significant effect on change in household wealth (Table 4). On average, households with at least one member who engaged in CFW in the previous 12 months reported overall income from all sources 23 percent higher than comparable households in the camp (Table 6). This effect is present when considering CFW workers from all skills groups (semi-skilled, skilled, highly skilled and technical). However, given the significant difference in terms of pay, employment and recruitment process, it is worth exploring the results making explicit the findings for the overall CFW workers, including semi-skilled, skilled, highly skilled and technical, with the findings from the group of semi-skilled workers only. In fact, when analysing semi-skilled workers only, the analysis finds positive results on household wealth, but does not find evidence of positive and significant results on overall income sources.

CFW appears to be one of many income sources with which refugees engage, albeit one of the most relevant ones (Figure 8) after business shops and street vending. Households engaged in CFW activities are 12 percentage points more likely to engage in any source of income, and 19 percentage points significantly less likely to engage in other income opportunities, such as agriculture inside and outside the camp, services, business shops or street vending (Table 5).

Overall, opinions towards CFW are generally high among refugees, with more positive opinions expressed by individuals directly involved in the programme. On average 49 percent of the respondents in the intervention group agreed with the statement that agencies operate fair and accessible CFW programmes; 46 percent strongly agreed with the statement that agencies treat CFW workers with respect and dignity; finally 42 percent and 44 percent strongly agreed with the statement that programmes provide a safe environment and give women equal access (Table 8).

There is evidence that CFW activities have improved skills when focusing on semi-skilled workers, who are 12 percentage points more likely to report increased technical skills since the beginning of the project. However, there is no evidence that refugees that engaged in CFW activities have improved their skills across the whole sample (Table 9).

Similarly, estimates on the entire sample provide limited evidence on higher self-esteem (Table 10). However, when investigating semi-skilled workers only, the evaluation finds positive and significant results on indicators where workers expressed opinions and attitudes about themselves.

The evaluation also provided evidence that households involved in CFW have a higher proportion of women engaged in income-generating economic activities (21 percent in the intervention group against 10 percent in the comparison group, see Table 11). For the group of semi-skilled workers only, CFW exposure seems to have had a positive and significant effect on opinions towards women's economic role. However, for the entire sample the evaluation found that respondents involved in CFW activities are 8 percentage points less likely to report that men should support with care work at home than respondents from households involved in CFW activities (Table 12).

Finally, the evaluation also investigated some of the narratives from refugees in explaining the motivations, challenges and satisfaction in pursuing paid work opportunities. The analysis revealed that 71 percent of the stories from the intervention group were related to CFW activities, and 88 percent referring to work within the camp. This compares with 24 percent and 50 percent in the comparison group (Table 13). Estimates suggest that respondents in the intervention group reported higher degrees of achievement of their goals, compared with the comparison group, and appeared to be more inclined to recommend their experience to a friend compared with the comparison group (Table 14). For both groups, it appears that the main motivation for seeking a job was access to material resources (e.g. money and goods), rather than learning something for the future or feeling better.

## **9.1 Programme learning considerations**

### **Reconsider the targeting process**

As described in Section 2, there were two different recruitment processes based on whether the project participants were engaged as semi-skilled workers or as skilled, highly skilled or technical workers. While semi-skilled workers are recruited on a rotation basis, skilled, highly skilled and technical workers are recruited based on merit. The consequence of this is that workers enrolled in CFW tended to be mainly male, educated, and originally from urban areas. If the labour conditions allow refugees to engage in other income-generating activities outside the camp, it might be useful to consider whether resources can be targeted towards the most marginalized groups, which have smaller possibilities to engage outside the camp. The analysis from Section 2.6 provides evidence that workers enrolled in CFW as semi-skilled workers experienced positive and significant results on self-esteem, improved technical skills, and opinions on gender equality, which are not present when considering skilled, highly skilled and technical workers. This seems to reinforce the argument in favour of a greater emphasis on the most vulnerable individuals and households providing an increased potential for greater impact.

**Revisit the gender component for the project**

While the project had a gender component aiming to increase women's empowerment, the results on opinions towards gender equality are fairly limited. The project team is advised to reconsider how to best engage and enrol women, as well as how to support gender equality in the context of the project.

**Reflect on self-esteem results**

Recognizing the challenging environment in which the project operates, it may be worth reflecting on the results of self-esteem indicators. The country team is encouraged to discuss why the group of semi-skilled workers presents positive and significant results on self-esteem indicators, while the entire sample, including skilled, highly skilled and technical workers, does not.

**Improve opinions about CFW activities:**

While general opinions towards CFW activities is positive overall (with most respondents agreeing that CFW programmes treat them with respect and dignity and provide safe environments), 51 percent and 73 percent of the respondents in the intervention and comparison groups did not agree with the statement that agencies operate fair and accessible CFW programmes. The country team is advised to consider how to support perceptions of fairness and accessibility among refugees, if this has not yet been done.

## 10 Appendix

The reported results for semi-skilled workers (Groups C and D only).

Table 16: Household consumption and wealth

	(1)	(2)
	Log(Total consumption - daily per capita)	Change in household wealth
Intervention mean	0.98	0.26
Comparison mean	1.00	-0.04
Difference:	-0.02	0.30***
	(0.05)	(0.09)
Obs (intervention)	336	336
Obs (total)	802	802

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ ; PSM estimates are bootstrapped with 1,000 repetitions.

Table 17: Household income

	(1)	(2)	(3)
	1[Household engaging in CFW in past 12 months]	1[Any income]	1[Any other income] except CFW]
Intervention mean	0.73	0.97	0.70
Comparison mean	0.00	0.85	0.85
Difference:	0.73***	0.12***	-0.15***
	(0.03)	(0.02)	(0.02)
Obs (intervention)	336	336	336
Obs (total)	802	802	802

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ ; PSM estimates are bootstrapped with 1,000 repetitions.



Table 18: Household income (cont)

	(1) Total household income from all sources	(2) ln(Total household income from all sources in lat 12 months)
Intervention mean	791.97	6.42
Comparison mean	894.98	6.30
Difference:	-103.01 (183.52)	0.12 (0.11)
Obs (intervention)	336	327
Obs (total)	802	724

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

Table 19: Opinions on sufficiency of income

	(1) 1[Sufficiency of income]	(2) Minimum monthly income per-capita
Intervention mean	0.15	47.90
Comparison mean	0.15	47.85
Difference:	0.00 (0.02)	0.04 (2.31)
Obs (intervention)	336	336
Obs (total)	802	802

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

Table 20: Opinions towards CFW (strongly agree only)

	(1) 1[Fair and accessible]	(2) 1[Respect and dignity]	(3) 1[Safe]	(4) 1[Equal access]
Intervention mean	0.46	0.47	0.41	0.42
Comparison mean	0.37	0.37	0.36	0.41
Difference:	0.09*** (0.03)	0.10*** (0.03)	0.05 (0.04)	0.01 (0.04)
Obs (intervention)	336	336	336	336
Obs (total)	802	802	802	802

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

Table 21: New skills

	(1) 1[Manage people]	(2) 1[Communicate]	(3) 1[Software]	(4) 1[Technical work]
Intervention mean	0.16	0.14	0.04	0.24
Comparison mean	0.17	0.17	0.06	0.12
Difference:	-0.01 (0.02)	-0.03 (0.03)	-0.01 (0.01)	0.12*** (0.02)
Obs (intervention)	336	336	336	336
Obs (total)	802	802	802	802

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

Table 22: Self-esteem

	(1) 1[Positive contribution to the family]	(2) 1[Feel positive qualities]	(3) 1[Feel able to act]	(4) 1[Feel satisfied]
Intervention mean	0.40	0.54	0.31	0.57
Comparison mean	0.35	0.46	0.33	0.48
Difference:	0.04 (0.05)	0.08* (0.05)	-0.02 (0.05)	0.09** (0.04)
Obs (intervention)	336	336	336	336
Obs (total)	802	802	802	802

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

Table 23: Women's empowerment

	(1) 1[Woman involved in income activities]
Intervention mean	0.19
Comparison mean	0.13
Difference:	0.07*** (0.02)
Obs (intervention)	336
Obs (total)	802

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions.

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