INTERNATIONAL FOOD POLICY
RESEARCH
INSTITUTE
IFPRI

IFPRI Discussion Paper 02184
May 2023

# Short-Term and Long-Term Effects of Cash for Work 

Evidence from a Randomized Controlled Trial in Tunisia

Jessica Leight<br>Eric Mvukiyehe

Poverty, Gender, and Inclusion Unit

## INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

The International Food Policy Research Institute (IFPRI), a CGIAR Research Center established in 1975, provides research-based policy solutions to sustainably reduce poverty and end hunger and malnutrition. IFPRI's strategic research aims to foster a climate-resilient and sustainable food supply; promote healthy diets and nutrition for all; build inclusive and efficient markets, trade systems, and food industries; transform agricultural and rural economies; and strengthen institutions and governance. Gender is integrated in all the Institute's work. Partnerships, communications, capacity strengthening, and data and knowledge management are essential components to translate IFPRI's research from action to impact. The Institute's regional and country programs play a critical role in responding to demand for food policy research and in delivering holistic support for country-led development. IFPRI collaborates with partners around the world.

## AUTHORS

Jessica Leight (j.leight@c,cgiar.org) is a Research Fellow in the Poverty, Gender, and Inclusion Unit of the International Food Policy Research Institute. Washington DC.

Eric Mvukiyehe (eric.mvukiyehe@duke.edu) is an Assistant Professor of Political Science at Duke University.

## Notices

${ }^{1}$ IFPRI Discussion Papers contain preliminary material and research results and are circulated in order to stimulate discussion and critical comment. They have not been subject to a formal external review via IFPRI's Publications Review Committee. Any opinions stated herein are those of the author(s) and are not necessarily representative of or endorsed by IFPRI.
${ }^{2}$ The boundaries and names shown and the designations used on the map(s) herein do not imply official endorsement or acceptance by the International Food Policy Research Institute (IFPRI) or its partners and contributors.
${ }^{3}$ Copyright remains with the authors. The authors are free to proceed, without further IFPRI permission, to publish this paper, or any revised version of it, in outlets such as journals, books, and other publications.

# Short-term and long-term effects of cash for work: Evidence from a randomized controlled trial in Tunisia 

Jessica Leight* Eric Mvukiyehe ${ }^{\dagger}$

May 2023


#### Abstract

${ }^{\dagger}$ For inputs into the study design and feedback and comments at various stages of the research project, we are grateful to Diego Angel-Urdinola, Sondes Gmir, Lofti Boundiali, Ezzeddine Mosbah, Laura Ralston, Fotini Christia, Chad Hazlett, David McKenzie, Jishnu Das, Florence Kondylis, David Evans, Arthur Alik-Lagrange, Rabah Arezki, Mahdi Barouni, Simone Bertoli, Anush Bezhanyan, Theophile Bougna, Bruno Crepon, Subha Mani, Olivier Sterk, Jules Gazeaud, Alvaro Gonzalez, Afef Haddad, Mary Hallward-Driemeier, Jesko Hentschel, Jason Kerwin, Elena Lanchovichina, Daniel Lederman, Arianna Legovini, Florian Leon, John Loeser, Fareeba Mahmood, Lili Mottaghi, Khalid Ahmed Ali Moheyddeen, Yuko Okamura, Tony Verheijen, Jan von der Goltz, Nahla Zeitoun, Mattias Lundberg, Patrick Premand, Nadia Urbinati, Chloe Fernandez, and many others. We are also grateful to Carlos Guastavino, Aanchal Bagga, Samih Ferrah, Sarah Elven, Nausheen Khan, Matias Iglesias, Catherine Baulieu, Joe St Clair, and Varada Shrotri for excellent research assistance. During survey implementation of two survey rounds, five-year apart from each other, we were privileged to work with BJKA Consulting, including Samy Kallel (Director General) and an excellent team of enumerators. We are particularly indebted to Samir Ben Zineb for outstanding Field Coordination services to this research project over six years. Finally, we express our deepest gratitude to all households that participated to our surveys. This research would have not been possible without their collaboration. The second endline of this research received Institutional Review Board (IRB) clearance from IRB Solutions, under protocol 2020/11/17 and the Pre-Analysis Plan was pre-registered under EGAP Registration ID 20170520AA. This research was conducted in partnership with the World Bank and the Tunisia Government's Ministry of Vocational Training and Employment (MVTE), National Observatory of Employment and Qualification (ONEQ, in its French acronym) unit. We gratefully acknowledge financial support from the World Bank Group and other donors through the Jobs Multi-Donors Trust Fund (Jobs MDTF), the Umbrella Facility for Gender Equality (UFGE), the MNA Gender Innovation Lab (MNAGIL), and the i2i Multi-Donors Trust Fund (i2i). The views expressed in this paper are the authors' alone and do not necessarily represent the views of the aforementioned organizations or the donors. All remaining errors are the responsibility of the authors alone.


#### Abstract

While a growing literature analyzes the economic effects of cash for work programs in developing countries, there remains little evidence about the longer-term effects of these interventions. This paper presents findings from a randomized controlled trial evaluating a three month intervention providing public works employment in rural Tunisia. The evaluation design incorporates two dimensions of randomization - community-level randomization to treatment and control, and individual-level randomization among eligible individuals - and a sample of 2,718 individuals was tracked over five years. The findings suggest that cash for work leads to significant increases in labor market engagement, assets, consumption, financial inclusion, civic engagement, psychological well being, and women's empowerment one-year post-treatment; however, these effects have largely attenuated to zero five years post-treatment, with the exception of a positive effect on assets. There is also evidence of positive spillover effects within treatment communities, but these effects similarly attenuate over time. JEL codes: O12, O15.


## 1 Introduction

Workfare or public works employment programs have long been prominent in many developing countries, and form an important part of the social safety net in contexts such as India (the National Rural Employment Guarantee Scheme) and Ethiopia (the Productive Safety Net Program). These programs typically have some of the same advantages as large-scale cash transfers - namely, they are a simple strategy to directly boost consumption and reduce poverty among the poorest households - but the additional requirement for employment can have several positive effects. First, public employment may be effectively self-targeting to those who do not have other higherreturn opportunities. Second, work can offer the opportunity for participants to build skills and thus have long-term positive effects on employment trajectories. Third, employment activities can be directed to facilitate the construction and/or maintenance of local assets that may have positive externalities.

In practice, however, the latter channels can be hard to substantiate, and workfare programs often center around low-skilled manual maintenance labor that is unlikely to result in any skills transfer and may not have high returns in terms of asset creation (Murgai et al. 2016). Recent reviews of primarily quasi-experimental evidence have suggested that public works programs generally do not seem to boost employability
or enhance skills, and as such, it may be challenging to justify the higher costs of implementing such programs vis-a-vis simpler direct cash transfer interventions (Gehrke and Hartwig 2018).

This paper presents findings from a randomized controlled trial in Tunisia designed to evaluate the short- and long-term effects of the Community Works and Local Participation (CWLP) pilot, a program that provided short-term paid employment to unemployed workers for three months. Compensation provided was around $\$ 200$ per month or $\$ 610$, relative to average monthly consumption per capita in the control arm of $\$ 245$; thus this was a proportionally large transfer, providing around 2.5 months allocation of consumption expenditure. ${ }^{1}$ (The compensation of $\$ 200$ monthly was also above the minimum wage, at that time around $\$ 178$ per month. $)^{2}$ Individuals were eligible if they were aged 18 to 60 , had been unemployed for at least 12 months, and were not enrolled in secondary or tertiary education.

The evaluation employs a novel design in order to estimate treatment effects along multiple dimensions: first, a community-level randomization assigned 80 rural villages (imadas) to either treatment or control status. Second, in each community, nongovernmental organization leaders or local leaders identified individuals who were eligible for the program based on the stated criteria, and in treatment communities, a random subset of these eligible individuals were offered employment. ${ }^{3}$ There are thus three samples of interest that are observed: the eligible and treated individuals in treatment communities; the eligible and untreated individuals in treatment communities; and the eligible and untreated individuals in control communities. This design allows us to generate high-quality estimates of both the direct and the spillover effects of the intervention by comparing eligible individuals in treatment communities to untreated counterparts in control communities.

The primary sample includes 2,718 individuals who were sampled from the list of eligible individuals constructed at the community level; no baseline survey was conducted, though pre-treatment data at the locality level from the 2014 census is available and is used to verify balance in the village-level randomization. The intervention and associated public works activities were rolled out between April and September

[^0]2015, and the first follow-up survey was implemented approximately one year later between April 2016 and January 2017. This was followed by a second, long-term follow-up conducted between December 2020 and April 2021, approximately five and half years following program implementation. The measured outcomes include a range of variables capturing labor force participation by both the target beneficiary and other household members, economic welfare, investment in human capital, social and civic engagement, psychosocial well-being, and women's empowerment. All outcomes of interest were pre-specified, and treatment effects for outcome families were estimated following Kling et al. (2007). We also report p-values based on both traditional statistical inference and corrected for multiple hypothesis testing.

The primary findings based on the cross-village comparison of treated and untreated individuals suggest that the intervention had significant and large short-term effects on both primary economic outcomes and secondary psychosocial outcomes. We observe significant increases of between .2 and .4 standard deviations in indices of labor market participation, assets, consumption, and financial inclusion, as well as increases of comparable magnitude in civic engagement, psychosocial well-being, and women's empowerment. (Null effects are observed for outcomes linked to human capital investment, coping mechanisms conditional on shocks, and social cohesion.) These effects are driven by a large increase in the probability that the respondent as well as other household members report any income-generating activity, leading to an increase in expenditure particularly on housing costs, an increased stock of assets including livestock and consumer durables, and a substantial (proportional) increase in savings relative to a base of essentially zero.

By the five-year follow-up, however, the short-term positive effects have substantially attenuated. For economic outcomes, the positive effects on assets and consumption remain of comparable magnitude and are weakly statistically significant, but only the increase in assets remains significant when corrected for multiple hypothesis testing. The effects on the other indices are uniformly statistically insignificant, and the hypothesis that the effects in rounds one and two are consistent can be rejected for the labor market variables, financial inclusion, psychological well-being, and women's empowerment and agency. The estimated treatment effects for primary (economic) outcomes are also robust to any corrections for bias introduced by selection into the survey sample or attrition over time in both survey rounds, but the treatment effects for secondary outcomes are not robust to this correction.

The findings based on the cross-village comparison of untreated individuals in
treatment and control communities - allowing for estimates of local spillover effects of the intervention - suggest a largely similar pattern. In the short run, there are positive effects on the primary and secondary outcomes of similar magnitude (again around . 3 standard deviations), other than financial inclusion. The effects on secondary outcomes are somewhat reduced, though the increases in civic engagement and psychosocial wellbeing remain statistically significant. In the long run, none of the estimated effects for the spillover sample remain statistically significant. (In addition, the estimated spillover effects in the short run are not robust to corrections for selection into the evaluation sample.)

Finally, we can evaluate the within-village comparison between individuals who are eligible and offered employment and eligible but not offered employment. This analysis shows a statistically insignificant difference in both the short and the long run, a finding that is unsurprising given that the effects on direct beneficiaries and eligible non-targeted individuals in treatment communities are largely parallel.

Our paper makes several contributions to the existing literature. First, we provide new evidence about the long-term effects of workfare or public works employment programs. We particularly contribute by tracking a wide range of both economic and psychosocial outcomes over a much longer time horizon (up to five years). Much of the existing literature analyzing the effects of public works employment has centered around two large, government-run programs, NREGA in India and the PSNP in Ethiopia, that can provide seasonal employment over a number of years. An extremely large literature has analyzed the effects of NREGA on labor market outcomes (Berg et al. 2018; Imbert and Papp 2015), poverty (Muralidharan et al. 2017; Ravi and Engler 2015), migration (Imbert and Papp 2019), conflict (Khanna and Zimmermann 2017; Fetzer 2020), education, child cognition, and child labor (Afridi et al. 2016; Mani et al. 2020; Li and Sekhri 2019; Shah and Steinberg 2021), and infant health (Chari et al. 2019). For the PSNP, evidence suggests impacts are limited on average due to low transfer levels, though there are some effects on food security and livestock assets (Gilligan et al. 2009; Berhane et al. 2014) as well as child nutrition (Porter and Goyal 2016). In urban areas, the rollout of PSNP leads to a shift from private to public employment, as well as enhanced local amenities (Abebe et al. 2021).

Beyond these two large recurring programs, other papers have analyzed similar short-term public works employment programs. In Côte d'Ivoire, a randomized trial suggested that seven months of temporary employment in road maintenance had no persistent effects fifteen months later, other than possibly higher productivity in non-
agricultural employment (Bertrand et al. 2017); similarly, in the Democratic Republic of Congo, there were minimal persistent effects of a four-month job offer 18 months later, other than modest effects on employment and savings (Brandily-Snyers et al. 2022). A randomized trial of workfare in Colombia found positive effects on consumption and labor supply that persisted up to a year (Alik-Lagrange et al. 2017). In Argentina, a public works employment project implemented in response to the 2002 economic crisis reduced unemployment and poverty (Galasso and Ravallion 2004). In Comoros, another randomized trial of a public works employment program found evidence of a significant increase in international migration (Gazeaud et al. 2021). In Yemen, public works employment increased labor supply and seemed to have a protective effect vis-avis adverse coping mechanisms during an economic downturn (Christian et al. 2015). In Malawi, however, a public works employment program had no effects on food security or use of fertilizer (Beegle et al. 2017).

Importantly, very few of the papers in the existing public works employment literature analyze effects on psychosocial or non-economic outcomes; and none, to our knowledge, report treatment effects for a horizon longer than about two years. We thus contribute by providing novel evidence around the effects of public works employment on civic engagement, social cohesion, psychological well being, and women's empowerment, and analyzing the effects on both economic and non-economic outcomes for a much longer follow-up period of five years.

Second, we contribute to a growing literature analyzing spillover effects of cash transfers or other cash benefit programs. Here, we benefit from a robust doublerandomized design that allows us to rigorously estimate spillover effects on individuals who are eligible for the program and who report similar observable characteristics, but who are randomly not offered the program, and we find spillovers that are large, positive, and of equal magnitude to the effects for direct beneficiaries. (This design has previously been used by only two other papers to our knowledge, Egger et al. (2019) and Beegle et al. (2017).) In the existing literature, Angelucci and De Giorgi (2009) analyzes the effects of Progresa on local non-eligible households and finds evidence of significant positive spillovers in terms of consumption, and similar positive spillovers are reported in a large evaluation of unconditional cash transfers in Kenya (Egger et al. 2019). Large positive spillovers of BRAC's Targeting the Ultrapoor - a multifaceted graduation program that also encompasses cash transfers - are also documented for consumption and economic outcomes, as well as for nutritional outcomes (Bandiera et al. 2017; Raza et al. 2018). There is also evidence of positive spillovers from economic
aid provided to refugees (Taylor et al. 2016). By contrast, there has also been evidence of negative spillovers of cash transfers in some contexts, particularly in more remote communities (Beegle et al. 2017; Haushofer and Shapiro 2016; Filmer et al. 2021).

This paper proceeds as follows. Section 2 describes the context, the experimental design and the data collection. Section 3 presents the analytical strategy, the outcomes of interest, and the main results. Section 4 concludes.

## 2 Methodology

### 2.1 Setting and intervention

In the decade prior to the 2011 Jasmine revolution, Tunisia's economy showed consistent growth and was among the leading performers in the Middle East and North Africa (MENA) region, with average annual growth in gross domestic product of 4.2 percent (World Bank 2011). In subsequent years however, Tunisia's economic growth slowed. Higher food prices exacerbated economic woes and in January 2014 culminated in political unrest and the toppling of Zine Ben Ali, the country's long-time ruler (Campante and Chor 2012). Average annual GDP growth between 2011 and 2015, the year in which this project was launched, was only $1.7 \%$.

In addition, the revolution substantially impacted access to basic services. In some localities, critical facilities such as clinics and hospitals were closed, while food supply routes were disrupted, thus making disadvantaged populations even more vulnerable. Existing plans to expand or improve health and education services especially in disadvantaged areas stalled (World Bank 2011).

Against this backdrop, the World Bank and the Tunisian Ministry of Vocational Training and Employment launched the Community Works and Local Participation (CWLP) project in Jendouba, a rural and underserved governorate. This pilot project sought to provide temporary employment opportunities to long-term unemployed men and women on local labor-intensive public works projects. The project's aims were to provide beneficiaries with immediate income support to help smooth consumption and to strengthen their future earning capacity (via the provision of skills development or work experience), while also improving productive infrastructure.

The CWLP program financed approximately 40 public works projects in Jendouba Province, for which workers were required to be between 18 and 60 years old, and to
have been out of work for at least 12 months. ${ }^{4}$ These local public works projects were chosen by local non-governmental organizations in conjunction with community leaders. Eligible projects all included the upgrading of local infrastructures and services, and a minimum of $70 \%$ of the budget was required to be devoted to labor costs.

A first round of CWLP projects was implemented between 2012 and 2014; our study focuses on the second round of projects, launched between April and September 2015 with an average duration of around three months. ${ }^{5}$ In identifying eligible individuals, priority was given to the poorest households, women, at-risk youth, and heads of households. Those who completed the program received a wage of around $\$ 10.18$ (in purchasing power parity-adjusted dollars) daily, for an estimated total of 825 Tunisian dinars or approximately $\$ 610$ over three months. The wage provided was thus above the prevailing minimum daily wage at the time, $\$ 8.88$.

### 2.2 Experimental design

The second round of the CWLP evaluated in this paper was rolled out as a randomized controlled trial in 80 imadas, or villages, in the Jendouba governorate, the lowest level administrative unit in Tunisia. ${ }^{6}$ We implemented the randomization in two steps in order to capture both direct and spillover effects of the CWLP. In the first step, the village-level randomization, we first stratified the 80 sample villages into three groups by population-less populated, moderately populated, and more populated. ${ }^{7}$ Randomization was conducted within these three strata, assigning 40 villages to treatment and 40 villages to control.

In the second stage, the individual-level randomization, local NGOs in treatment villages compiled lists of around 60-65 poor unemployed residents eligible for employment in public work projects. We randomly selected around 42 of these eligible workers to participate in each village; the others were not offered employment. Among those who were offered employment, take-up of employment was around $80 \%$, yielding around 34 participating workers in each village. Note that all individuals offered employment will be identified as treated individuals in treated communities for the

[^1]purposes of the intent-to-treat analysis conducted here. ${ }^{8}$
In addition, local leaders in the control villages also compiled lists of 40 village residents who would have been eligible for the program if their villages had been assigned to treatment, thus constituting the control sample. This selection of eligible individuals in control communities was conducted approximately a year following the selection of individuals in treatment communities, but leaders were advised to refer retrospectively to individuals' outcomes in selecting beneficiaries. Figure 1 depicts the experimental design, and Figure A1 shows a map of the project locations. All randomization procedures were conducted by the research team using Stata.

### 2.3 Data collection

The evaluation did not include a baseline survey, though baseline administrative data at the imada level is available drawing on the Tunisia population census from 2014. Instead, two rounds of follow-up surveys were conducted. The sampling frame is constituted by the beneficiary lists constructed in both treatment and control communities as described above. In treatment villages, the beneficiary list included an average of around 60-65 beneficiaries per village, for a total of 2,537 total respondents, and the entire beneficiary list was targeted for the survey. In the control villages, the survey firm randomly sampled 20 individuals out of the 40 individuals included on the constructed list of eligible individuals.

The total target sample was thus 2,537 individuals in the treatment villages and 800 individuals in the control villages; the realized evaluation sample, as captured in Figure 1, was 1924 individuals in the treatment villages ( $76 \%$ of the target sample), and 794 in the control villages, for a total of 2,718 individuals. ${ }^{9}$

We conducted the first round of data collection between April 2016 and January 2017, on average roughly 12 months after the end of the intervention in each treatment village (paid employment generally ended around August 2015). ${ }^{10}$ The second round of data collection was conducted between December 2020 and March 2021, approximately

[^2]five and a half years post-treatment, as depicted in Figure 2. From the evaluation sample of 2,718 individuals surveyed in the first follow-up survey, the second follow-up survey included 2,185 individuals for an attrition rate of 19.6 percent $(22.5 \%$ in treatment villages and $12.6 \%$ in control villages); this difference is not statistically significant. Again, more details about potential bias induced by attrition between the first and second follow-up survey rounds will be provided in Section 3.5.

The survey instruments that were used in both survey rounds consisted of a questionnaire administered to the individual who was identified as eligible for cash for work. ${ }^{11}$ The survey collected information on the composition of the household, the economic activities of its members, assets, consumption, the economic shocks faced by the household, social cohesion, civic participation, women's empowerment, and psychological well-being.

## 3 Empirical analysis

### 3.1 Outcomes of interest and conceptual framework

The outcomes of interest were pre-specified at the launch of the experiment and include six primary outcome families: labor market outcomes for the primary respondent, labor market outcomes for other household members, consumption, assets, financial inclusion, and human capital. The five secondary outcome families include coping mechanisms (vis-a-vis shocks experienced by the household), psychological well-being, social cohesion, civic engagement, and women's empowerment and agency.

Tables 1 and 2 summarize the variables included. The summary outcome measures are constructed following Kling et al. (2007) and are generally defined identically for the first and second rounds of follow-up. Details about the cases in which the outcome families were not defined identically, and about any deviations from the pre-analysis plan, are provided in Appendix A. ${ }^{12}$

Given a large existing literature analyzing the effect of public works employment on the outcomes of interest, we do not provide a full conceptual framework, but simply a brief overview of potentially relevant channels through which the intervention may

[^3]shape these outcomes. For the economic outcomes of interest, there are two primary channels for effects. The first channel is the direct effect generated by the infusion of cash into the household that could be used to amass assets, invest in training, purchase goods, generate savings, or potentially invest in an income-generating activity (or fund a search for employment), either for the main respondent or another household member. The second channel is the indirect effect if respondents develop skills or amass experience in their period of public works employment that leads to an increased probability of an economic activity post-intervention; or, if respondents use the cash earned to fund the start-up or search costs associated with identifying a new economic activity. This increased level of economic activity and income may in turn may lead to positive effects on other economic variables.

For secondary outcomes of interest, we hypothesize that enhanced economic status through the direct and indirect channels may lead to a shift away from adverse coping mechanisms in the face of shocks (e.g., households who have more resources will not be required to disinvest in assets in response to a negative shock). We also hypothesize that enhanced economic status could lead to increased engagement in the community both socially and civically and enhanced psychological well-being. There is also the potential for enhanced female empowerment in the form of increased economic engagement or decision-making, though there could also be a backlash effect in response to the intervention that would lead to decreased economic empowerment for women.

### 3.2 Baseline balance

To assess balance across villages assigned to the treatment and control arms, Panel A of Table 3 reports results summarizing covariate balance at the village level using data from the 2014 population census. The villages in the sample are characterized by an average population size of around 1000 households or 4000 individuals; around $73 \%$ of the population is constituted by adults. Unemployment rates are high, averaging above $25 \%$ for individuals aged fifteen and above, and education rates are also notably low compared to national averages: more than half of heads of household report no education. We uniformly observe that there are no statistically different differences in these covariates comparing across the treatment and control villages. In addition, the magnitude of the differences is generally low in absolute terms: for example, the mean unemployment rate differs by only 9 percentage points comparing across the treatment and control arms, and the percentage of household heads reporting different levels of
education varies by between two and four percentage points. ${ }^{13}$
Panel B of Table 3 then reports balance using time-invariant covariates at the household level; these covariates were measured in the first follow-up survey, but are presumptively unchanged vis-a-vis baseline. ${ }^{14}$ We report the mean for households randomly selected for an offer of employment in treatment villages in Column (1); for households randomly selected for a non-offer of employment in treatment villages in Column (2); and for households in control villages in Column (3). We then report the p-value corresponding to the pair-wise comparisons across each of these three samples (conditional on strata fixed effects). Again, we generally observe that there are no statistically significant differences in covariates comparing across these three sets of households, though two covariates differ at the ten percent level comparing across the treated and spillover samples within treatment communities. The average respondent identified as eligible for public works employment is around 40 years old; $55 \%$ are female, and $70 \%$ are married. A majority (around $60 \%$ ) report no education. Engagement in the labor market is extremely low (fewer than $10 \%$ report working more than three months in 2013), consistent with the programmatic criteria targeting the long-term unemployed. The overwhelming majority were born locally.

A more detailed assessment of balance at the household level is unfortunately infeasible in this evaluation given the absence of a baseline survey (the only household-level covariates available are the time-invariant covariates described in the previous paragraph). This renders it challenging to assess whether the selection of eligible respondents in the treatment and control arms generated samples that are fully comparable. However, the available evidence at both the village and household levels does suggest that observable characteristics are generally parallel across arms.

We can also characterize the sample vis-a-vis the national poverty line by drawing on the estimated level of consumption subsequently measured for households in the control arm. The estimated level of consumption in the control arm in the follow-up survey conducted in 2016 was $\$ 245$ per month for the household, or around $\$ 60$ monthly per capita given a household size of four. This is broadly similar to an estimated national poverty line of around $\$ 70$ monthly ( $\$ 2.60$ daily) as of 2010 (Molini 2019), but suggestive of a consumption level around $20 \%$ lower than this poverty line even six years later.

[^4]This low level of consumption relative to even the national poverty line in Tunisia is consistent with the hypothesis that the program's targeting criteria effectively identified the long-term unemployed or economically inactive. Among households who do report a primary income-generating activity (in the control arm) in the 2016 survey, one third report that their primary activity is agriculture; $25 \%$ construction; $12 \%$ government employment; and $20 \%$ other, generally petty trade or a semi-skilled occupation such as carpentry or mechanical work.

### 3.3 Results

Given the randomized design, the primary empirical specification is simple. Outcome variables of interest reported at the individual level $Y_{i v}$ for individual $i$ in village $v$ are regressed on a binary variable for treatment assignment $T_{v}$. (Some, though not all of those variables are in fact reported by the individual for the whole household: i.e., household-level consumption and household ownership of assets.) In the first specification, we restrict the sample to those individuals sampled in treatment communities and offered treatment as well as those individuals sampled in control communities in order to measure direct intervention effects. We also include binary variables for the randomization strata, $\lambda_{v}$, and standard errors are clustered at the village level.

$$
\begin{equation*}
Y_{i v}=\beta_{1} T_{v}+\lambda_{v}+\epsilon_{i v} \tag{1}
\end{equation*}
$$

We also estimate a parallel specification identical to equation (1) including only those individuals in the treatment arm who were eligible for treatment but not offered treatment (as well as individuals in the control communities) in order to estimate local spillover effects.

The final specification of interest exploits the within-village randomization, using data from treatment villages only; outcomes are regressed on the individual-level variable for an offer of work WorkOffer $r_{v i}$.

$$
\begin{equation*}
Y_{i v}=\beta_{2} \text { WorkOffer } i v+\epsilon_{i v} \tag{2}
\end{equation*}
$$

We report both conventional p-values and q-values corrected for multiple inference, setting the rate of false discovery at $\mathrm{q}=0.05$ (Benjamini and Hochberg 1995). For a detailed description of calculation of $q$-values, see Anderson (2008).

Figure 3 and Tables 4 and 5 capture the main results. For concision, the figure presents the primary estimated treatment effects for outcome families comparing across
treated and eligible individuals in treatment and control villages respectively, with estimated coefficients for round one and round two. The confidence intervals are constructed using $q$-values that are robust to corrections for multiple hypothesis testing. Tables 4 and 5 present results from rounds one and two, respectively. In both tables, the first set of columns captures the main treatment effect estimated comparing across treatment and control villages using specification (1), analogous to the figure; the second set of column captures the estimated spillover effects comparing across treatment and control villages, using specification (1) for the sample of eligible individuals not offered treatment; and the third set of columns captures the within-village treatment effect, using specification (2).

Figure 3 shows that there are significant and positive effects of cash-for-work comparing across eligible individuals in treatment and control communities in the first follow-up round: this includes an increase in the index of the respondent's labor market outcomes of .28 standard deviations, an increase in household labor market activity of . 24 standard deviations, an increase in the consumption and assets indices of between .2 and .4 standard deviations, and an increase in the financial inclusion index of .28 standard deviations. There is no significant increase in human capital. For secondary outcomes, there are similarly positive effects on civic engagement, psychological well-being, and women's empowerment and agency, all around .3 standard deviations; however, there is no evidence of any effects on coping mechanisms or social cohesion. (As described in more detail below, the variables related to women's empowerment and agency relate to the level of economic empowerment of the principal woman in the household: either the individual sampled for treatment, if the treated individual is female, or his spouse, if the treated individual is male.)

It is clear in the figure, however, that these effects have substantially attenuated in the second round and are no longer statistically different from zero. We can see in Table 5 that in the second round, we observe an increase in consumption of .26 standard deviations that is not statistically significant when corrected for multiple hypothesis testing; and an increase in assets of .30 standard deviations that remains statistically significant. None of the other coefficients in round two are significant. Though in some cases the width of the confidence intervals does not allow us to reject the hypothesis that the effects are equal in magnitude across the two follow-up rounds, this hypothesis can be rejected for labor market outcomes, financial inclusion, psychological well-being, and women's empowerment and agency.

Returning to Table 4, Columns (6) through (10) capture the spillover effects estimated
comparing eligible but untreated individuals in treatment and control communities. Here, the coefficients for the primary and secondary outcome families are comparable in magnitude vis-a-vis the direct treatment effects (and in some cases, slightly larger). This suggests that these individuals also benefit significantly via informal social support from treated individuals, and/or local economic spillovers of the cash payments. There is, however, no effect on financial inclusion, or women's empowerment. Unsurprisingly, given that the direct and spillover treatment effects are similar, the final set of columns capturing the within-village difference between eligible individuals who are and are not offered treatment shows coefficients that are generally small in magnitude and statistically insignificant when corrected for multiple hypothesis testing. These effects also show the same pattern of attenuation across rounds: the only statistically significant spillover effect in the second round is an increase in the asset index, and there are no significant within-village treatment effects in the second round.

We also report the same set of findings using specifications including additional controls in Tables A1 and Table A2 in the Appendix; in both cases, we compile the findings from rounds one and two into a single table for concision. In Table A1, we include additional control variables for all time-invariant individual-level demographic characteristics reported in the balance tests in Panel B of Table 3, and in Table A2, we add additional controls for survey period. ${ }^{15}$ In both tables, the main findings are unchanged.

Moving beyond the aggregate indices, Tables A9 through Table A30 report the estimated treatment effects for the individual variables in each index to unpack the mechanisms for the underlying effect. For labor market outcomes, we can observe in Table A9 that engagement in short-term public works employment leads to a near-doubling of the probability that treated individuals report an income-generating activity in round one (an increase of eight percentage points, relative to a control arm mean of nine percentage points), and an increase in the number of days worked over the last month (again, a near doubling). The low base rates of any economic activity are consistent with the targeting of the intervention to an extremely economically inactive population. In round two, however, these effects have in fact reversed in sign, with treated individuals reporting a significant five percentage point decline in the probability of any income generating activity, relative to a mean of $18 \%$; conversely, treated individuals are significantly more likely to report that they have looked for paid work (an increase

[^5] halves, and control for early and late survey timing.
of 10 percentage points, relative to a mean in the control arm of $22 \%$ ). This constitutes suggestive evidence that the medium-term effects of the intervention may in fact be slightly negative for labor market outcomes - perhaps because respondents have forgone potentially higher-return labor market experience in the private sector while engaged in the intervention, or have raised their wage expectations suboptimally high after exposure to the wage offered by the public works program - though there seems to be a positive effect on search behavior.

A similar pattern is evident for household-level labor market outcomes, capturing whether the household head (who is the same as the respondent in about $50 \%$ of cases) or any other household member reports an income-generating activity; we observe a large and positive effect in the first round that is weakly negative in the second round. In the first round, there is an increase in the probability of an income generating activity for the household head of 14 percentage points relative to the mean in the control arm of $20 \%$, but in the second round, the estimated effect is a decline of seven percentage points, relative to a mean in the control arm of $26 \%$.

The detailed findings on consumption and assets reported in Tables A13 through A16 suggest that the increase in consumption in the short run is driven primarily by more discretionary categories of expenditure such as communications, household chores, rent and housing repairs, and other services; the largest increase seems to be in housing expenses, where we observe an increase of around $\$ 4.50$ over the past week, relative to a mean in the control arm of $\$ 11.50$, for a proportional increase of $40 \%$. In the second round, many of the coefficients on consumption categories remain positive, but they are no longer statistically significant, and the coefficient on rent expenditure has reversed in sign. For assets, there is a significant increase in reported ownership of livestock, furniture, and electronic equipment, and these coefficients are largely consistent across both survey rounds (with the exception of livestock). The pattern of effects over time is particularly notable for financial inclusion outcomes, where in round one we observe a very large proportional increase in savings in the treatment arm: the current stock of savings increases by $\$ 0.93$ relative to a mean of just seven cents in the control arm, increasing nearly fourteen-fold. By the second round, however, savings is precisely zero in both arms, reducing the treatment effect to a null. ${ }^{16}$ There are no significant effects on debt or reported ownership of a bank account in either survey round.

For secondary outcomes, we can see that the substantial increase in psychological

[^6]well-being in the first round is driven by a reduction in adverse feelings of loss of control and uselessness, and a substantial increase in feelings of social connectedness, as proxied by the number of people with whom the respondent would share a decision to depart the village. The increase in women's empowerment is substantially driven by a large increase in the probability that the female member of the household reports any income generating activity: the probability increases by five percentage points relative to a base probability of two, nearly quadrupling. Again, all of these effects have attenuated to zero by the second round, often inverting in sign.

We can also compare the magnitudes of the estimated effects on economic outcomes in the short run to the actual magnitude of the transfer (again, $\$ 610$ over three months). The total positive effect on monthly consumption (summing across all categories enumerated) is around $\$ 29$. If this pattern of increased consumption has been consistent over the 12 months since the conclusion of the program, that would suggest around $\$ 350$ or $57 \%$ of the value of the original transfer has been directed toward increased consumption. (Of course, households have also presumably earned additional income during this period.) The value of additional assets is challenging to assess, as no data on asset prices was collected; and the value of additional savings (though proportionally large relative to the mean of virtually zero) is minimal, with no evidence of any shift in debt. In general, it seems plausible to conclude that the transfer was substantially directed toward increased consumption in the post-transfer year. This pattern would also be consistent with the attenuation of effects in the longer-term as funds are depleted (and as the initial positive effect on the probability of an income-generating activity disappears).

To sum up, there is very little evidence that a short-term cash-for-work program generated persistent economic or non-economic effects in this context. The short-term effects were large for both economic and non-economic outcomes and for both direct beneficiaries and eligible individuals who were not offered work but benefited from spillover effects. These initial large effects are perhaps unsurprising given that the magnitude of the cash infusion was substantial, but they did not lead to any longerterm shifts other than some increased asset ownership.

### 3.4 Heterogeneous effects

The pre-analysis plan specified a number of dimensions of heterogeneity analysis. ${ }^{17}$ Here, we report heterogeneity with respect to participant gender, the village-level unemployment rate (as reported in the 2014 census), and the mean incidence of recent shocks in the village (as reported in the first follow-up survey). The first communitylevel variable captures local economic conditions more broadly; the second communitylevel variable captures whether the area has recently experienced a high volume of adverse shocks.

The results presented in Tables A3 through A5 generally suggest there is no meaningful variation in the estimated treatment effects. For heterogeneity with respect to local economic conditions, there is some weak evidence the treatment-induced increase in consumption in round one may be smaller, but this interaction effect is noisily estimated and the pattern is not observed consistently. For heterogeneity with respect to the incidence of local shocks, there may be some positive interaction with financial inclusion (and negative interaction for social participation), but again the pattern is not consistent across outcomes.

### 3.5 Selection into the evaluation sample

There are two forms of potential selection into the evaluation sample that are relevant for this analysis. First, as previously noted only $76 \%$ of individuals included on the eligibility list for the employment intervention in treatment communities, and thus targeted for inclusion in the evaluation, were in fact surveyed in the first round of follow-up and entered the evaluation sample. This includes $69 \%$ of those who were eligible and not offered employment, and $79 \%$ of those who were eligible and offered employment. ${ }^{18}$ In addition, an attrition rate of $19.6 \%$ was observed between the first and second follow-up surveys.

To explore potential selection into the sample, we estimate treatment effects in the first round using Lee bounds (for a detailed description of the methodology, see (Lee

[^7]2009)). As in the main estimation, we include randomization strata indicators as a baseline covariate in the analysis to tighten the bounds, and employ bootstrapped standard errors. ${ }^{19}$ The results for the main outcome families are reported in Table A6. The evidence suggests that the positive treatment effects for the primary economic outcomes for individuals directly randomized into treatment are generally robust, particularly for labor market outcomes and assets. However, the estimated treatment effects for secondary outcomes for treated individuals (civic engagement, psychological well-being, and women's empowerment) have bounds that cross zero, as do the estimated treatment effects capturing spillovers for individuals in treatment communities who were not offered employment.

Also, as previously noted, attrition was non-trivial in this sample given the long-follow-up period: $20 \%$ of respondents attrited between the first and second surveys. To analyze the predictors of attrition, Table A7 presents evidence using the following specification. A binary variable for attrited is regressed on a (time-invariant) household covariate as measured in the first survey round, a treatment indicator, and the interaction between the two; the same covariates presented in the balance tests in Table 3 are employed here.

$$
\begin{equation*}
\text { Attrit }_{i v}=\beta_{1} X_{i v}+\beta_{2} T_{v}+\beta_{3} X_{i v} \times T_{v}+\epsilon_{i v} \tag{3}
\end{equation*}
$$

The findings suggest that respondents who are older, female, married, have some education and are from outside the governorate are significantly less likely to attrite, suggestive of lower levels of mobility for these subpopulations, and the coefficients are large: women are 16 percentage points more likely to be successfully surveyed in the second round, and married individuals are 10 percentage points more likely to be surveyed. There is also some evidence of heterogeneity by treatment status in these patterns: treated women are even less likely to attrite, possibly because of the positive effects of the intervention (at least in the short-term). Respondents who have some labor market experience and who were born locally are also somewhat less likely to attrite in treatment communities.

In order to explore the robustness of the estimated treatment coefficients in the long-run to the observed pattern of attrition, we also estimate Lee bounds for the second-round treatment effect estimates using a parallel strategy. The results reported

[^8]in Table A8 are generally consistent with those previously reported, in that only the small positive effects on consumption and assets are positive and significant, suggesting that attrition is not a meaningful source of bias in these results. ${ }^{20}$

## 4 Conclusion

This paper provides new evidence from a multilevel randomized controlled trial around the short- and long-term effects of a three-month cash for work project targeting the long-term unemployed in rural Tunisia. The program provided a wage stipend equivalent to more than two months of household consumption expenditure, and it led to substantial short-term positive effects (around one year post-intervention) on a range of economic and social outcomes including consumption, assets, financial inclusion, civic engagement, psychological well-being, and women's empowerment. Importantly, these effects are observed not only for individuals in treatment villages who were randomly selected for an offer of employment, but also for eligible individuals in treatment villages who were randomly selected not to receive an offer of employment, suggestive of meaningful and large intravillage spillover effects.

However, there is very little evidence that these effects persist five years postprogram. Other than a weakly positive effect on assets, treatment and control individuals show little evidence of differential outcomes at this point, suggesting that engagement in short-term public works labor had no meaningful effects on shifting economic trajectories in the medium-term. In particular, there is no evidence that the intervention led to any shift in labor market integration or skill acquisition five years post-treatment.

These findings add to a growing evidence base suggestive of very limited persistent effects of short-term public works employment, though these programs could still be a useful mechanism to provide a short-term buffer against adverse shocks or to smooth consumption. Further research may usefully explore the relative effectiveness and particularly cost-effectiveness of cash for work vis-a-vis cash transfers; given the absence of evidence that public works programs are effective in building skills or increasing employability, the relative advantage of these interventions vis-a-vis simpler social safety net programs remains an open question.

Data availability statement: Replication data for this paper will be made publicly

[^9]available in an appropriate repository following acceptance of the paper.

## Figure 1: Study Design



Notes: This figure illustrates the experimental design. The 80 rural villages were first randomized into 40 treatment and control villages. Following the identification of eligible households, assignment to the cash-for-work programs was randomized in treatment villages.

Figure 2: Timeline


Notes: This figure captures the evaluation timeline.

## Figure 3: Main results



Notes: This figure reports the treatment effects for the primary and secondary outcome families in the first follow-up survey round (one year post-treatment) and second follow-up survey round (five years post-treatment). The outcome families are described in Table 1 for primary outcomes and Table 2 for secondary outcomes. We report the primary treatment effect estimate comparing across treated individuals offered employment in treatment villages and untreated individuals in control villages, corresponding to specification (1); the corresponding coefficients are reported in Columns (1) through (4) of Tables 4 and 5. The bars capture $95 \%$ confidence intervals; these intervals are constructed using $q$-values that are corrected for multiple hypothesis testing.

Table 1: Primary families of outcomes

| Outcome Family | Indicators |  |
| :--- | :--- | :--- |
| Labor market: <br> main respondent | Primary | Any income-generating activity (IGA) (past 4 weeks) <br> Number of days worked in main IGA (past 4 weeks) <br> Active employment search (past 4 weeks) |
| Labor market: <br> other household members | Primary | Any IGA for household head (past 4 weeks) <br> Any IGA for any other member of the household (past 4 weeks) |
| Consumption | Primary | Value of past-month household consumption in categories: <br> meat and fish; fruit and legumes / vegetables; <br> eggs and milk; oil and fat; beverages; cigarettes and alcohol; <br> other food; healthcare; education; leisure; transportation; <br> electricity / gas / water; communications; household chores; <br> rent/small repairs; other services |
| Assets | Primary | Count variables for household ownership of any mode of <br> transportation / vehicle; livestock; furniture; electronic equipment; <br> binary variables for cement or brick wall; cement or tile roof; <br> reports title to home; owns land; <br> also, self-reports three or higher on poverty scale |
| Financial inclusion | Primary | Amount of savings (past year) <br> Binary variable for any debt (past year) <br> Current debt balance <br> Reports any bank account |

Notes: This table summarizes the variables included in each primary outcome family. For consumption, the survey collected data about food consumption over the past week and non-food consumption over the past month, but both are converted to monthly aggregates for the purposes of analysis. For the financial inclusion index, the variable capturing access to a bank account was reported only in the second follow-up round.

Table 2: Secondary families of outcomes

| Outcome Family |  | Indicators |
| :---: | :---: | :---: |
| Coping mechanisms (in response to shock) | Secondary | Reduced food consumption <br> Borrowed money from friends, neighbors or cooperatives <br> Received assistance from friends, community, <br> NGO, or government <br> Drew down assets or savings |
| Social cohesion | Secondary | Community participation and cohesion Collective action Violent conflict inside/outside imada (inverted) |
| Civic engagement | Secondary | Civic engagement <br> Political knowledge and attitudes Political inclusion |
| Psychological well being | Secondary | Fear of losing control (inverted) <br> Fear of being exploited (inverted) <br> Feeling of uselessness for others (inverted) <br> Positive relationships between household members <br> Would share with others decision to leave the village <br> Feels accepted within family <br> Feels accepted by other households <br> Feels in control <br> Feels that goals can be accomplished |
| Women's empowerment and agency | Secondary | Woman reports any earned income over past six months Woman decides how income will be used <br> Man decides alone how income will be used (inverted) <br> Woman reports income generating activity |

Notes: This table summarizes the variables included in each secondary outcome family. For the psychological well being index, there were some minor differences in the variables reported across the two follow-up survey rounds. In round two, four variables are not reported: fear of being exploited, a feeling of uselessness for others, a feeling of acceptance within the household, and a feeling of acceptance by other households. The first two variables linked to self-esteem / depression are replaced by two others: a binary variable for feeling depressed, and a binary variable for loss of interest in activities.
Table 3: Balance across treatment and control arms

| Panel A: Balance in village-level covariates (2014 census) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | $\stackrel{(5)}{N}$ | (6) | (7) |
|  | Control mean | Treatment mean | Difference | P -Value |  |  |  |
| Number of households | $\begin{gathered} \hline 1081.475 \\ (893.523) \end{gathered}$ | $\begin{gathered} 926.847 \\ (547.547) \end{gathered}$ | $\begin{gathered} -154.628 \\ (165.695) \end{gathered}$ | 0.211 | 80 |  |  |
| Average household Size | $\begin{gathered} 3.864 \\ (0.294) \end{gathered}$ | $\begin{gathered} 3.913 \\ (0.279) \end{gathered}$ | $\begin{gathered} 0.049 \\ (0.064) \end{gathered}$ | 0.734 | 80 |  |  |
| Percentage of males aged 18 years old and above | $\begin{gathered} 0.355 \\ (0.024) \end{gathered}$ | $\begin{gathered} 0.349 \\ (0.023) \end{gathered}$ | $\begin{gathered} -0.006 \\ (0.005) \end{gathered}$ | 0.337 | 80 |  |  |
| Percentage of females aged 18 years old and above | $\begin{gathered} 0.384 \\ (0.020) \end{gathered}$ | $\begin{gathered} 0.385 \\ (0.020) \end{gathered}$ | $\begin{gathered} 0.002 \\ (0.004) \end{gathered}$ | 0.549 | 80 |  |  |
| Percentage of males aged 14-30 years old | $\begin{gathered} 0.129 \\ (0.014) \end{gathered}$ | $\begin{gathered} 0.131 \\ (0.014) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.003) \end{gathered}$ | 0.831 | 80 |  |  |
| Percentage of females aged 14-30 years old | $\begin{gathered} 0.132 \\ (0.019) \end{gathered}$ | $\begin{gathered} 0.135 \\ (0.020) \end{gathered}$ | $\begin{gathered} 0.003 \\ (0.004) \end{gathered}$ | 0.639 | 80 |  |  |
| Unemployment rate (age 15 and above) | $\begin{gathered} 0.266 \\ (0.119) \end{gathered}$ | $\begin{gathered} 0.275 \\ (0.098) \end{gathered}$ | $\begin{gathered} 0.009 \\ (0.024) \end{gathered}$ | 0.734 | 80 |  |  |
| Illiteracy rate (age 10 and above) | $\begin{gathered} 0.397 \\ (0.139) \end{gathered}$ | $\begin{gathered} 0.409 \\ (0.112) \end{gathered}$ | $\begin{gathered} 0.011 \\ (0.028) \end{gathered}$ | 0.936 | 80 |  |  |
| Percentage of household heads: no education | $\begin{gathered} 0.530 \\ (0.192) \end{gathered}$ | $\begin{gathered} 0.554 \\ (0.155) \end{gathered}$ | $\begin{gathered} 0.024 \\ (0.039) \end{gathered}$ | 0.723 | 80 |  |  |
| Percentage of household heads: primary educ. | $\begin{gathered} 0.292 \\ (0.095) \end{gathered}$ | $\begin{gathered} 0.314 \\ (0.090) \end{gathered}$ | $\begin{gathered} 0.022 \\ (0.021) \end{gathered}$ | 0.258 | 80 |  |  |
| Percentage of household heads: secondary or higher educ. | $\begin{gathered} 0.178 \\ (0.143) \end{gathered}$ | $\begin{gathered} 0.132 \\ (0.101) \end{gathered}$ | $\begin{gathered} -0.047 \\ (0.028) \end{gathered}$ | 0.143 | 80 |  |  |
| Previous PWP | $\begin{gathered} 0.350 \\ (0.483) \end{gathered}$ | $\begin{gathered} 0.475 \\ (0.506) \end{gathered}$ | $\begin{gathered} 0.125 \\ (0.111) \end{gathered}$ | 0.280 | 80 |  |  |
| Panel B: Balance in time-invariant household covariates (reported in round one, 2016) |  |  |  |  |  |  |  |
|  | Treatment villages Treated | Treatment villages Untreated | Control villages | Within: Offered emp. vs. spillovers | Between: Offered emp. vs. control | Spillovers: <br> Spillovers vs. control | N |
|  | Mean | Mean | Mean | p-value | p-value | p-value |  |
| Age | $\begin{gathered} 41.472 \\ (10.671) \end{gathered}$ | $\begin{gathered} 40.772 \\ (11.419) \end{gathered}$ | $\begin{gathered} 41.522 \\ (11.767) \end{gathered}$ | 0.904 | 0.293 | 0.273 | 2718 |
| Female | $\begin{gathered} 0.550 \\ (0.498) \end{gathered}$ | $\begin{gathered} 0.557 \\ (0.500) \end{gathered}$ | $\begin{array}{r} 0.497 \\ (0.497) \end{array}$ | 0.064* | 0.824 | 0.103 | 2718 |
| Married | $\begin{gathered} 0.703 \\ (0.457) \end{gathered}$ | $\begin{gathered} 0.647 \\ (0.463) \end{gathered}$ | $\begin{gathered} 0.691 \\ (0.478) \end{gathered}$ | 0.569 | 0.122 | 0.264 | 2718 |
| No education | $\begin{gathered} 0.617 \\ (0.486) \end{gathered}$ | $\begin{gathered} 0.592 \\ (0.490) \end{gathered}$ | $\begin{gathered} 0.600 \\ (0.492) \end{gathered}$ | 0.534 | 0.684 | 0.798 | 2718 |
| No primary education | $\begin{gathered} 0.617 \\ (0.486) \end{gathered}$ | $\begin{gathered} 0.592 \\ (0.490) \end{gathered}$ | $\begin{gathered} 0.600 \\ (0.492) \end{gathered}$ | 0.534 | 0.684 | 0.798 | 2718 |
| Worked more than three months in 2013 | $\begin{gathered} 0.084 \\ (0.278) \end{gathered}$ | $\begin{gathered} 0.072 \\ (0.233) \end{gathered}$ | $\begin{gathered} 0.057 \\ (0.258) \end{gathered}$ | 0.055* | 0.292 | 0.561 | 2718 |
| Born in the village | $\begin{gathered} 0.858 \\ (0.349) \end{gathered}$ | $\begin{gathered} 0.826 \\ (0.346) \end{gathered}$ | $\begin{gathered} 0.861 \\ (0.379) \end{gathered}$ | 0.856 | 0.204 | 0.255 | 2718 |
| Born outside the governorate | $\begin{array}{r} 0.113 \\ (0.316) \end{array}$ | $\begin{gathered} 0.142 \\ (0.315) \end{gathered}$ | $\begin{gathered} 0.111 \\ (0.350) \end{gathered}$ | 0.932 | 0.185 | 0.212 | 2718 |

[^10]Table 4: Estimated treatment effects: Round one

|  | Across villages |  |  |  | Spillovers |  |  |  | Within villages |  |  | (12) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} (1) \\ \mathrm{T}-\mathrm{C} \end{gathered}$ | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |  |
|  |  | SE | p-value | N | T-C | SE | p -value | N | T-C | SE | p-value | N |
|  |  | (FDR-adj) |  |  | (FDR-adj) |  |  |  | (FDR-adj) |  |  |  |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | $0.277^{* * *}$ | 0.089 | $\begin{gathered} 0.003 \\ (0.010) \end{gathered}$ | 2126 | $0.319^{* * *}$ | 0.080 | $\begin{gathered} 0.000 \\ (0.001) \end{gathered}$ | 1386 | -0.013 | 0.049 | $\begin{gathered} 0.789 \\ (0.790) \end{gathered}$ | 1924 |
| Labor market of the household | $0.243^{* * *}$ | 0.082 | $\begin{gathered} 0.004 \\ (0.010) \end{gathered}$ | 2124 | $0.308^{* * *}$ | 0.075 | $\begin{gathered} 0.000 \\ (0.001) \end{gathered}$ | 1385 | -0.037 | 0.048 | $\begin{gathered} 0.447 \\ (0.514) \end{gathered}$ | 1921 |
| Consumption expenditures | $0.261^{* * *}$ | 0.097 | $\begin{gathered} 0.009 \\ (0.014) \end{gathered}$ | 2126 | $0.226^{* *}$ | 0.111 | $\begin{gathered} 0.044 \\ (0.082) \end{gathered}$ | 1386 | 0.043 | 0.050 | $\begin{gathered} 0.388 \\ (0.514) \end{gathered}$ | 1924 |
| Assets owning | $0.436^{* * *}$ | 0.114 | $\begin{gathered} 0.000 \\ (0.002) \end{gathered}$ | 2126 | $0.368^{* * *}$ | 0.123 | $\begin{gathered} 0.004 \\ (0.010) \end{gathered}$ | 1386 | 0.037 | 0.050 | $\begin{gathered} 0.467 \\ (0.514) \end{gathered}$ | 1924 |
| Financial inclusion | 0.280** | 0.107 | $\begin{gathered} 0.010 \\ (0.015) \end{gathered}$ | 2126 | 0.084 | 0.095 | $\begin{gathered} 0.376 \\ (0.591) \end{gathered}$ | 1386 | $0.116^{* *}$ | 0.050 | $\begin{gathered} 0.020 \\ (0.221) \end{gathered}$ | 1924 |
| Human capital | 0.087 | 0.073 | $\begin{gathered} 0.235 \\ (0.287) \end{gathered}$ | 2126 | 0.022 | 0.086 | $\begin{gathered} 0.799 \\ (0.879) \end{gathered}$ | 1386 | 0.061 | 0.050 | $\begin{gathered} 0.227 \\ (0.514) \end{gathered}$ | 1924 |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | 0.009 | 0.114 | $\begin{gathered} 0.938 \\ (0.939) \end{gathered}$ | 467 | -0.072 | 0.122 | $\begin{gathered} 0.556 \\ (0.680) \end{gathered}$ | 251 | 0.113 | 0.106 | $\begin{gathered} 0.288 \\ (0.514) \end{gathered}$ | 462 |
| Social cohesion | 0.047 | 0.068 | $\begin{gathered} 0.486 \\ (0.535) \end{gathered}$ | 2126 | 0.003 | 0.067 | $\begin{gathered} 0.960 \\ (0.960) \end{gathered}$ | 1386 | 0.055 | 0.056 | $\begin{gathered} 0.322 \\ (0.514) \end{gathered}$ | 1924 |
| Civic engagement | $0.284^{* * *}$ | 0.098 | $\begin{gathered} 0.005 \\ (0.010) \end{gathered}$ | 2126 | $0.319 * * *$ | 0.110 | $\begin{gathered} 0.005 \\ (0.011) \end{gathered}$ | 1386 | -0.036 | 0.049 | $\begin{gathered} 0.463 \\ (0.514) \end{gathered}$ | 1924 |
| Psychological well being | $0.288^{* * *}$ | 0.072 | $\begin{gathered} 0.000 \\ (0.002) \end{gathered}$ | 2125 | $0.327^{* * *}$ | 0.081 | $\begin{gathered} 0.000 \\ (0.001) \end{gathered}$ | 1386 | -0.046 | 0.050 | $\begin{gathered} 0.359 \\ (0.514) \end{gathered}$ | 1923 |
| Women's empowerment and agency | $0.268 * * *$ | 0.094 | $\begin{gathered} 0.005 \\ (0.010) \end{gathered}$ | 1162 | 0.100 | 0.126 | $\begin{gathered} 0.429 \\ (0.591) \end{gathered}$ | 723 | 0.125* | 0.069 | $\begin{gathered} 0.071 \\ (0.392) \end{gathered}$ | 1015 |

Notes: The table presents the primary treatment effects for the outcomes of interest in the first follow-up survey, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the
spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All specifications include strata fixed effects and spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible
standard errors clustered at the village level. FRD $q$-values are calculated according to Anderson (2008). ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$
Table 5: Estimated treatment effects: Round two

|  | Across villages |  |  |  |  | Spillovers |  |  |  |  | Within villages |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} (1) \\ \text { T-C } \end{gathered}$ | $\begin{aligned} & \text { (2) } \\ & \text { SE } \end{aligned}$ | (3) p-value | $\begin{gathered} (4) \\ \mathrm{N} \end{gathered}$ | (5) $\mathrm{R} 2=\mathrm{R} 1$ | $\begin{aligned} & (6) \\ & \text { T-C } \end{aligned}$ | (7) <br> SE | (8) <br> p-value | $\begin{aligned} & (9) \\ & \mathrm{N} \end{aligned}$ | $\begin{gathered} (10) \\ \mathrm{R} 2=\mathrm{R} 1 \end{gathered}$ | $\begin{gathered} (11) \\ \mathrm{T}-\mathrm{C} \end{gathered}$ | $\begin{aligned} & (12) \\ & \mathrm{SE} \end{aligned}$ | (13) <br> p-value | $\begin{gathered} (14) \\ \mathrm{N} \end{gathered}$ | $\begin{gathered} (15) \\ \mathrm{R} 2=\mathrm{R} 1 \end{gathered}$ |
|  |  |  | (FDR-adj) |  | (FDR-adj) |  |  | (FDR-adj) |  | (FDR-adj) |  |  | (FDR-adj) |  | (FDR-adj) |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | -0.027 | 0.061 | $\begin{gathered} 0.662 \\ (0.929) \end{gathered}$ | 1748 | (0.001) | 0.009 | 0.066 | $\begin{gathered} 0.896 \\ (0.896) \end{gathered}$ | 1131 | (0.001) | -0.041 | 0.056 | $\begin{gathered} 0.464 \\ (0.936) \end{gathered}$ | 1491 | (0.682) |
| Labor market of the household | -0.087 | 0.056 | $\begin{gathered} 0.124 \\ (0.419) \end{gathered}$ | 1748 | (0.000) | -0.054 | 0.059 | $\begin{gathered} 0.366 \\ (0.896) \end{gathered}$ | 1131 | (0.000) | -0.026 | 0.057 | $\begin{gathered} 0.648 \\ (0.936) \end{gathered}$ | 1491 | (0.878) |
| Consumption expenditures | 0.258** | 0.113 | $\begin{gathered} 0.026 \\ (0.167) \end{gathered}$ | 1748 | (0.985) | 0.290** | 0.125 | $\begin{gathered} 0.023 \\ (0.150) \end{gathered}$ | 1131 | (0.713) | -0.014 | 0.056 | $\begin{gathered} 0.797 \\ (0.985) \end{gathered}$ | 1491 | (0.427) |
| Assets owning | 0.303*** | 0.084 | $\begin{gathered} 0.001 \\ (0.007) \end{gathered}$ | 1748 | (0.210) | 0.271*** | 0.087 | $\begin{gathered} 0.003 \\ (0.034) \end{gathered}$ | 1131 | (0.429) | 0.001 | 0.057 | $\begin{gathered} 0.985 \\ (0.985) \end{gathered}$ | 1491 | (0.556) |
| Financial inclusion | 0.004 | 0.071 | $\begin{gathered} 0.956 \\ (1.000) \end{gathered}$ | 1748 | (0.021) | 0.014 | 0.075 | $\begin{gathered} 0.852 \\ (0.896) \end{gathered}$ | 1131 | (0.570) | 0.006 | 0.058 | $\begin{gathered} 0.915 \\ (0.985) \end{gathered}$ | 1491 | (0.188) |
| Human capital | 0.111 | 0.082 | $\begin{gathered} 0.181 \\ (0.472) \end{gathered}$ | 1748 | (0.826) | 0.048 | 0.085 | $\begin{gathered} 0.572 \\ (0.896) \end{gathered}$ | 1131 | (0.820) | 0.049 | 0.058 | $\begin{gathered} 0.393 \\ (0.936) \end{gathered}$ | 1491 | (0.846) |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | 0.000 | 0.120 | $\begin{gathered} 1.000 \\ (1.000) \end{gathered}$ | 438 | (0.957) | -0.054 | 0.142 | $\begin{gathered} 0.705 \\ (0.896) \end{gathered}$ | 253 | (0.926) | 0.053 | 0.113 | $\begin{gathered} 0.638 \\ (0.936) \end{gathered}$ | 397 | (0.703) |
| Social cohesion | 0.055 | 0.106 | $\begin{gathered} 0.604 \\ (0.929) \end{gathered}$ | 1748 | (0.943) | 0.032 | 0.102 | $\begin{gathered} 0.754 \\ (0.896) \end{gathered}$ | 1131 | (0.815) | 0.036 | 0.055 | $\begin{gathered} 0.508 \\ (0.936) \end{gathered}$ | 1491 | (0.829) |
| Civic engagement | 0.127 | 0.083 | $\begin{gathered} 0.129 \\ (0.419) \end{gathered}$ | 1748 | (0.239) | 0.074 | 0.088 | $\begin{gathered} 0.402 \\ (0.896) \end{gathered}$ | 1131 | (0.100) | 0.040 | 0.056 | $\begin{gathered} 0.477 \\ (0.936) \end{gathered}$ | 1491 | (0.347) |
| Psychological well being | 0.034 | 0.084 | $\begin{gathered} 0.691 \\ (0.929) \end{gathered}$ | 1748 | (0.007) | 0.069 | 0.090 | $\begin{gathered} 0.442 \\ (0.896) \end{gathered}$ | 1131 | (0.022) | -0.035 | 0.057 | $\begin{gathered} 0.539 \\ (0.936) \end{gathered}$ | 1491 | (0.887) |
| Women's empowerment and agency | -0.069 | 0.074 | $\begin{gathered} 0.359 \\ (0.778) \end{gathered}$ | 1074 | (0.001) | -0.017 | 0.083 | $\begin{gathered} 0.834 \\ (0.896) \end{gathered}$ | 655 | (0.415) | -0.041 | 0.072 | $\begin{gathered} 0.565 \\ (0.936) \end{gathered}$ | 951 | (0.047) |





## References

Abebe, Girum, Simon Franklin, Clément Imbert, and Carolina Mejia-Mantilla, "Urban public works in spatial equilibrium: Experimental Evidence from Ethiopia," 2021. CEPR Discussion Paper No. DP16691.

Afridi, Farzana, Abhiroop Mukhopadhyay, and Soham Sahoo, "Female labor force participation and child education in India: Evidence from the National Rural Employment Guarantee Scheme," IZA Journal of Labor Development, 2016, 5 (1), 7.

Alik-Lagrange, Arthur, Orazio Attanasio, Costas Meghir, Sandra Polanía-Reyes, and Marcos Vera-Hernández, "Work pays: Different benefits of a workfare program in Colombia," 2017.

Anderson, Michael L, "Multiple inference and gender differences in the effects of early intervention: A reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects," Journal of the American Statistical Association, 2008, 103 (484), 1481-1495.

Angelucci, Manuela and Giacomo De Giorgi, "Indirect effects of an aid program: How do cash transfers affect ineligibles' consumption?," American Economic Review, March 2009, 99 (1), 486-508.

Bandiera, Oriana, Robin Burgess, Narayan Das, Selim Gulesci, Imran Rasul, and Munshi Sulaiman, "Labor markets and poverty in village economies," The Quarterly Journal of Economics, 03 2017, 132 (2), 811-870.

Beegle, Kathleen, Emanuela Galasso, and Jessica Goldberg, "Direct and indirect effects of Malawi's public works program on food security," Journal of Development Economics, 2017, 128, 1-23.

Benjamini, Yoav and Yosef Hochberg, "Controlling the false discovery rate: a practical and powerful approach to multiple testing," Journal of the Royal statistical society: series B (Methodological), 1995, 57 (1), 289-300.

Berg, Erlend, Sambit Bhattacharyya, D. Rajasekhar, and R. Manjula, "Can public works increase equilibrium wages? Evidence from India's National Rural Employment Guarantee," World Development, 2018, 103, 239-254.

Berhane, Guush, Daniel O Gilligan, John Hoddinott, Neha Kumar, and Alemayehu Seyoum Taffesse, "Can social protection work in Africa? The impact of

Ethiopia's productive safety net programme," Economic Development and Cultural Change, 2014, 63 (1), 1-26.

Bertrand, Marianne, Bruno Crépon, Patrick Premand, and Alicia Marguerie, "Contemporaneous and post-program impacts of a public works program: Evidence from Côte d'Ivoire," 2017.

Brandily-Snyers, Paul, Eric Mvukiyehe, Lodewijk Smets, Peter van der Windt, and Marijke Verpoorten, "From workfare to economic, social and political Stability? Evidence from a randomized trial in war-torn Eastern Congo," 2022.

Campante, Filipe R and Davin Chor, "Why was the Arab world poised for revolution? Schooling, economic opportunities, and the Arab Spring," Journal of Economic Perspectives, 2012, 26 (2), 167-88.

Chari, A.V., Peter Glick, Edward Okeke, and Sinduja V. Srinivasan, "Workfare and infant health: Evidence from India's public works program," Journal of Development Economics, 2019, 138, 116-134.

Christian, Sikandra, Alain de Janvry, Daniel Egel, and Elisabeth Sadoulet, "Quantitative evaluation of the Social Fund for Development Labor Intensive Works Program (LIWP)," Technical Report, UC Berkeley CUDARE Working Papers 2015.

Egger, Dennis, Johannes Haushofer, Edward Miguel, Paul Niehaus, and Michael W. Walker, "General equilibrium effects of cash transfers: Experimental evidence from Kenya," Technical Report, National Bureau of Economic Research 266002019.

Fetzer, Thiemo, "Can workfare programs moderate conflict? Evidence from India," Journal of the European Economic Association, 2020, 18 (6), 3337-3375.

Filmer, Deon, Jed Friedman, Eeshani Kandpal, and Junko Onishi, "Cash transfers, food prices, and nutrition impacts on ineligible children," The Review of Economics and Statistics, 2021, pp. 1-45.

Galasso, Emanuela and Martin Ravallion, "Social Protection in a Crisis: Argentina's Plan Jefes y Jefas," The World Bank Economic Review, 10 2004, 18 (3), 367-399.

Gazeaud, Jules, Eric Mvukiyehe, and Olivier Sterck, "Cash transfers and migration: Theory and evidence from a randomized controlled trial," The Review of Economics and Statistics, 2021, pp. 1-45.

Gehrke, Esther and Renate Hartwig, "Productive effects of public works programs: What do we know? What should we know?," World development, 2018, 107, 111-124.

Gilligan, Daniel O, John Hoddinott, and Alemayehu Seyoum Taffesse, "The impact of Ethiopia's Productive Safety Net Programme and its linkages," The Journal of Development Studies, 2009, 45 (10), 1684-1706.

Haushofer, Johannes and Jeremy Shapiro, "The long-term impact of unconditional cash transfers: Experimental evidence from Kenya," 2016.

Imbert, Clement and John Papp, "Labor market effects of social programs: Evidence from india's employment guarantee," American Economic Journal: Applied Economics, 2015, 7 (2), 233-63.

Imbert, Clément and John Papp, "Short-term migration, rural public works, and urban labor markets: Evidence from India," Journal of the European Economic Association, 03 2019, 18 (2), 927-963.

Khanna, Gaurav and Laura Zimmermann, "Guns and butter? Fighting violence with the promise of development," Journal of Development Economics, 2017, 124, 120-141.

Kling, Jeffrey R, Jeffrey B Liebman, and Lawrence F Katz, "Experimental analysis of neighborhood effects," Econometrica, 2007, 75 (1), 83-119.

Lee, David S, "Training, wages, and sample selection: Estimating sharp bounds on treatment effects," The Review of Economic Studies, 2009, 76 (3), 1071-1102.

Li, Tianshu and Sheetal Sekhri, "The spillovers of employment guarantee programs on child labor and education," The World Bank Economic Review, 2019.

Mani, Subha, Jere R. Behrman, Sheikh Galab, Prudhvikar Reddy, Young Lives Determinants, and Consequences of Child Growth Project Team, "Impact of the NREGS on Children's Intellectual Human Capital," The Journal of Development Studies, 2020, 56 (5), 929-945.

Molini, Vasco, "Poverty and Equity Brief: Middle East and North Africa, Tunisia," 2019. World Bank Group: Poverty and Equity, retrieved from https:/ /databankfiles.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Archives-2019/Global ${ }_{P} O V E Q_{T} U N . p d f$.

Muralidharan, Karthik, Paul Niehaus, and Sandip Sukhtankar, "General equilibrium effects of (improving) public employment programs: Experimental evidence from India," NBER Working Paper, 2017.

Murgai, Rinku, Martin Ravallion, and Dominique Van de Walle, "Is workfare costeffective against poverty in a poor labor-surplus economy?," The World Bank Economic Review, 2016, 30 (3), 413-445.

Porter, Catherine and Radhika Goyal, "Social protection for all ages? Impacts of Ethiopia's Productive Safety Net Program on child nutrition," Social Science Medicine, 2016, 159, 92-99.

Ravi, Shamika and Monika Engler, "Workfare as an effective way to fight poverty: The case of India's NREGS," World Development, 2015, 67, 57-71.

Raza, Wameq A., Ellen Van de Poel, and Tom Van Ourti, "Impact and spill-over effects of an asset transfer program on child undernutrition: Evidence from a randomized control trial in Bangladesh," Journal of Health Economics, 2018, 62, 105-120.

Shah, Manisha and Bryce Millett Steinberg, "Workfare and human capital investment: Evidence from India," Journal of Human Resources, 2021, 56 (2), 380-405.

Taylor, J. Edward, Mateusz J. Filipski, Mohamad Alloush, Anubhab Gupta, Ruben Irvin Rojas Valdes, and Ernesto Gonzalez-Estrada, "Economic impact of refugees," Proceedings of the National Academy of Sciences, 2016, 113 (27), 7449-7453.

World Bank, "Community Works and Local Participation Project Document," 2011.

## Appendix A Outcome families reported

In this section, we provide a brief overview of any differences in the outcome families analyzed vis-a-vis the pre-analysis plan that was pre-registered, and as relevant, also note any differences in outcome variables comparing across the first and second followup survey rounds. It is important to note that the original PAP also specified that any outcome variable for which $95 \%$ or more of the sample provided the same response would be excluded from the analysis, a rule that has been consistently employed here.

Two outcome families included in the originally registered PAP were completely dropped as it was subsequently identified that there was no plausible channel for the intervention to target those outcomes: shocks, and access to basic services. Provision of public works employment would not alter households' exposure to economic and noneconomic shocks (though it might alter their response to those shocks, as captured in the variables linked to coping mechanisms), and similarly would not alter their access to health or education services. In addition, one outcome family (intimate partner violence) is omitted from this analysis as it will be reported in a separate paper.

For labor market outcomes, there were five potentially relevant outcome families originally described in the pre-analysis plan (wage employment, other employment, non-agricultural enterprise, other farming activities, and employment and income by other household members). Two of these pre-specified outcome families had insufficient variation to be analyzed (other employment, and non-agricultural enterprise), and the detailed module on farming activities was collected only in the second follow-up survey round. Accordingly, for concision we have collapsed these to two outcome families: respondent labor market outcomes and household labor market outcomes. We also report only the binary variables, rather than the binary and continuous variables.

For consumption, food and non-food consumption have been combined, and there are no other differences vis-a-vis the pre-analysis plan. For assets, there are no difference vis-a-vis the pre-analysis plan. For financial inclusion, this outcome family was originally named debt and savings index. Two of the pre-specified variables (saved money in the last three months, and total amount of savings) were combined into a slightly different question (total money saved over the last 12 months). Two additional questions around debt were added (contracted any debt over the last 12 months, and amount of debt over the last two months).

For human capital, two variables from the originally specified set of outcomes were omitted because there was no plausible channel for the intervention to target
these outcomes: literacy of the main respondent, and education level of the main respondent. Given the age of the respondents, they had plausibly completed their educational trajectory considerably prior to the intervention launch.

For coping mechanisms, there are no differences vis-a-vis the pre-analysis plan other than that some mechanisms were aggregated up to generate seven variables instead of five. For social cohesion, the only difference vis-a-vis the pre-analysis plan is that migration has been excluded, to be reported in a separate paper; inter-personal trust has also been more appropriately re-named violent conflict. For civic engagement, there are no difference vis-a-vis the pre-analysis plan, but "political isolation" has been more appropriately renamed "political inclusion."

For psychological well-being, there are no differences vis-a-vis the pre-analysis plan in round one. In round two, four variables are not reported: fear of being exploited, a feeling of uselessness for others, a feeling of acceptance within the household, and a feeling of acceptance by other households. The first two variables linked to self-esteem / depression are replaced by two others: a binary variable for feeling depressed, and a binary variable for loss of interest in activities.

For women's empowerment and agency, four of the seven variables are reported; the remaining three had an insufficient level of variation.

The designation of primary and secondary outcome families is consistent with the PAP, except that the coping mechanisms outcomes are re-designated as secondary.

Figure A1: Study Locations


Figure A1: Timeline of the projects

TABLE A1: Estimated treatment effects conditional on time-invariant covariates

|  | Across villages |  |  |  |  | Spillovers |  |  |  |  | Within villages |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | T-C | SE | p-value <br> (FDR-adj) | N | $\begin{gathered} \mathrm{R} 2=\mathrm{R} 1 \\ (\mathrm{FDR}-\mathrm{adj}) \end{gathered}$ | T-C | SE | p-value <br> (FDR-adj) | N | $\begin{gathered} \text { R2=R1 } \\ \text { (FDR-adj) } \end{gathered}$ | T-C | SE | p-value <br> (FDR-adj) | N | $\begin{gathered} \text { R2=R1 } \\ \text { (FDR-adj) } \end{gathered}$ |
| Panel A: Tunisia Round 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | 0.262*** | 0.074 | $0.001$ | 2098 |  | 0.290*** | 0.071 | $0.000$ | 1364 |  | 0.015 | 0.046 | $0.735$ | 1896 |  |
| Labor market of the household | 0.241*** | 0.072 | 0.001 $(0.004)$ | 2096 |  | 0.309*** | 0.067 | (0.000 | 1363 |  | -0.040 | 0.047 | 0.403 | 1893 |  |
| Consumption expenditures | 0.207** | 0.092 | 0.027 | 2098 |  | 0.183* | 0.108 | 0.096 | 1364 |  | 0.002 | 0.050 | 0.972 | 1896 |  |
| Assets owning | $0.411^{* * *}$ | 0.105 | 0.000 | 2098 |  | $0.362^{* * *}$ | 0.114 | 0.002 | 1364 |  | 0.043 | 0.049 | 0.381 | 1896 |  |
| Financial inclusion | 0.289*** | 0.105 | 0.007 | 2098 |  | 0.075 | 0.096 | 0.436 | 1364 |  | 0.083 | 0.051 | 0.103 | 1896 |  |
| Human capital | 0.106* | 0.064 | $\begin{gathered} (0.012) \\ 0.100 \\ (0.122) \end{gathered}$ | 2098 |  | 0.027 | 0.078 | $\begin{gathered} (0.600) \\ 0.727 \\ (0.800) \end{gathered}$ | 1364 |  | 0.056 | 0.048 | $\begin{gathered} (0.342) \\ 0.246 \\ (0.542) \end{gathered}$ | 1896 |  |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | 0.073 | 0.116 | 0.532 | 458 |  | 0.018 | 0.123 | 0.887 | 242 |  | 0.145 | 0.105 | 0.170 | 452 |  |
| Social cohesion | 0.040 | 0.068 | 0.560 | 2098 |  | -0.026 | 0.070 | 0.718 | 1364 |  | 0.073 | 0.059 | 0.212 | 1896 |  |
| Civic engagement | 0.285*** | 0.092 | 0.003 | 2098 |  | $0.321^{* * *}$ | 0.100 | 0.002 | 1364 |  | 0.004 | 0.049 | 0.936 | 1896 |  |
| Psychological well being | 0.271*** | 0.074 | (0.000 | 2098 |  | 0.311*** | 0.085 | ${ }_{0} 0.000$ | 1364 |  | -0.010 | 0.051 | 0.844 | 1896 |  |
| Women's empowerment and agency | $0.294^{* * *}$ | 0.095 | $(0.003$ 0 | 1157 |  | 0.155 | 0.125 | (0.221 | 720 |  | 0.086 | 0.071 | 0.226 | 1009 |  |
| Panel B: Tunisia Round 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | 0.033 | 0.051 | 0.519 | 1729 | (0.011) | 0.062 | 0.059 | 0.292 | 1117 | (0.012) | -0.016 | 0.053 | 0.768 | 1474 | (0.872) |
| Labor market of the household | -0.062 | 0.054 | (0.256 | 1729 | (0.001) | -0.016 | 0.056 | (0.774 | 1117 | (0.001) | -0.021 | 0.056 | (0.714 | 1474 | (0.600) |
| Consumption expenditures | 0.239** | 0.110 | 0.033 | 1729 | (0.897) | 0.306** | 0.125 | 0.017 | 1117 | (0.596) | -0.028 | 0.055 | 0.616 | 1474 | (0.376) |
| Assets owning | 0.294*** | 0.080 | 0.000 | 1729 | (0.091) | 0.271*** | 0.082 | 0.001 | 1117 | (0.274) | 0.000 | 0.057 | 0.998 | 1474 | (0.456) |
| Financial inclusion | 0.025 | 0.074 | 0.737 | 1729 | (0.029) | 0.012 | 0.075 | 0.869 | 1117 | (0.619) | 0.018 | 0.059 | 0.763 | 1474 | (0.224) |
| Human capital | 0.118 | 0.079 | 0.137 $(0.447)$ | 1729 | (0.931) | 0.051 | 0.082 | $0.533$ | 1117 | (0.860) | 0.055 | 0.057 | $0.334$ (0.909) | 1474 | (0.761) |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | 0.034 | 0.114 | 0.764 | 436 | (0.893) | -0.018 | 0.146 | 0.900 | 249 | (0.865) | 0.060 | 0.113 | 0.595 | 391 | (0.686) |
| Social cohesion | 0.033 | 0.110 | 0.767 | 1729 | (0.933) | 0.014 | 0.117 | 0.905 | 1117 | (0.816) | 0.036 | 0.055 | 0.512 | 1474 | (0.837) |
| Civic engagement | 0.131 | 0.083 | (0.817) | 1729 | (0.225) | 0.072 | 0.087 | 0.412 | 1117 | (0.067) | 0.042 | 0.055 | 0.439 | 1474 | (0.325) |
| Psychological well being | 0.048 | 0.084 | (0.477) | 1729 | (0.007) | 0.088 | 0.089 | ${ }_{0}$ | 1117 | (0.030) | -0.030 | 0.056 | (0.594 | 1474 | (0.906) |
| Women's empowerment and agency | -0.046 | 0.072 | $\begin{gathered} (0.831) \\ 0.523 \\ (0.831) \end{gathered}$ | 1062 | (0.002) | 0.030 | 0.083 | $\begin{gathered} (0.905) \\ 0.721 \\ (0.905) \end{gathered}$ | 645 | (0.354) | -0.057 | 0.072 | $\begin{gathered} (0.909) \\ 0.428 \\ (0.909) \end{gathered}$ | 939 | (0.100) | Notes: The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible

untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All specifications include strata fixed effects and standard errors clustered at the village level. FRD $q$-values are calculated according to Anderson (2008). The columns denoted R2=R1 reports the p-values corresponding to tests of equality for the estimated coefficients for the same outcomes comparing across rounds. ${ }_{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$
Table A2: Estimated treatment effects including control for survey period

|  | Across villages |  |  |  |  | Spillovers |  |  |  |  | Within villages |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | T-C | SE | p-value <br> (FDR-adj) | N | $\begin{gathered} \mathrm{R} 2=\mathrm{R} 1 \\ (\mathrm{FDR}-\mathrm{adj}) \end{gathered}$ | T-C | SE | p-value <br> (FDR-adj) | N | $\begin{gathered} \text { R2=R1 } \\ \text { (FDR-adj) } \end{gathered}$ | T-C | SE | p-value <br> (FDR-adj) | N | $\begin{gathered} \text { R2=R1 } \\ \text { (FDR-adj) } \end{gathered}$ |
| Panel A: Tunisia Round 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | 0.237*** | 0.088 | $0.009$ | 2125 |  | 0.263*** | 0.091 | $0.005$ | 1384 |  | 0.035 | 0.052 | $0.499$ | 1921 |  |
| Labor market of the household | $0.227^{* * *}$ | 0.083 | 0.008 | 2123 |  | 0.309*** | 0.080 | 0.000 | 1383 |  | -0.018 | 0.051 | 0.730 | 1918 |  |
| Consumption expenditures | 0.308*** | 0.099 | 0.003 | 2125 |  | 0.354** | 0.135 | 0.010 | 1384 |  | -0.041 | 0.054 | 0.455 | 1921 |  |
| Assets owning | $0.463^{* * *}$ | 0.122 | 0.000 | 2125 |  | $0.474^{* * *}$ | 0.135 | 0.001 | 1384 |  | -0.015 | 0.053 | 0.778 | 1921 |  |
| Financial inclusion | $0.341^{* * *}$ | 0.113 | 0.003 | 2125 |  | $0.212^{*}$ | 0.124 | 0.090 | 1384 |  | 0.061 | 0.053 | 0.253 | 1921 |  |
| Human capital | 0.065 | 0.074 | 0.380 $(0.466)$ | 2125 |  | 0.045 | 0.092 | (0.631 | 1384 |  | 0.086 | 0.054 | - | 1921 |  |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | 0.006 | 0.121 | 0.960 | 467 |  | -0.159 | 0.141 | 0.265 | 250 |  | 0.147 | 0.111 | 0.186 | 461 |  |
| Social cohesion | 0.046 | 0.075 | 0.547 | 2125 |  | -0.002 | 0.097 | 0.984 | 1384 |  | 0.049 | 0.061 | 0.423 | 1921 |  |
| Civic engagement | $0.278{ }^{* * *}$ | 0.102 | 0.008 | 2125 |  | 0.351*** | 0.123 | 00006 | 1384 |  | -0.028 | 0.052 | 0.592 | 1921 |  |
| Psychological well being | $0.264^{* * *}$ | 0.086 | (0.003 | 2124 |  | 0.293** | 0.126 | ${ }_{0}^{(0.0163)}$ | 1384 |  | 0.039 | 0.053 | (0.460 | 1920 |  |
| Women's empowerment and agency | 0.276*** | 0.095 | $(0.0105$ $0.011)$ | 1162 |  | 0.216 | 0.144 | $(0.042)$ 0 | 723 |  | 0.092 | 0.075 | (0. 0.219 $(0.687)$ | 1015 |  |
| Panel B: Tunisia Round 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | -0.027 | 0.061 | 0.662 | 1748 | (0.003) | 0.009 | 0.066 | 0.896 | 1131 | (0.007) | -0.041 | 0.056 | 0.464 | 1491 | (0.307) |
| Labor market of the household | -0.087 | 0.056 | (0.124 | 1748 | (0.001) | -0.054 | 0.059 | 0.366 0 | 1131 | (0.000) | -0.026 | 0.057 | (0.648) | 1491 | (0.946) |
| Consumption expenditures | 0.258** | 0.113 | 0.026 | 1748 | (0.725) | 0.290** | 0.125 | 0.023 | 1131 | (0.724) | -0.014 | 0.056 | 0.797 | 1491 | (0.708) |
| Assets owning | $0.303^{* * *}$ | 0.084 | (0.001 | 1748 | (0.138) | 0.271*** | 0.087 | 0.003 | 1131 | (0.114) | 0.001 | 0.057 | 0.985 | 1491 | (0.782) |
| Financial inclusion | 0.004 | 0.071 | 0.956 | 1748 | (0.008) | 0.014 | 0.075 | (0.852 | 1131 | (0.179) | 0.006 | 0.058 | 0.915 | 1491 | (0.504) |
| Human capital | 0.111 | 0.082 | $(1.181$ 0 | 1748 | (0.683) | 0.048 | 0.085 | (0.896) 0 | 1131 | (0.976) | 0.049 | 0.058 | $(0.985)$ 0.393 | 1491 | (0.571) |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | 0.000 | 0.120 | 1.000 | 438 | (0.971) | -0.054 | 0.142 | 0.705 | 253 | (0.606) | 0.053 | 0.113 | 0.638 | 397 | (0.548) |
| Social cohesion | 0.055 | 0.106 | (1.604 | 1748 | (0.933) | 0.032 | 0.102 | (0.754 | 1131 | (0.813) | 0.036 | 0.055 | 0.508 | 1491 | (0.891) |
| Civic engagement | 0.127 | 0.083 | (0.129 | 1748 | (0.264) | 0.074 | 0.088 | (0.896) | 1131 | (0.081) | 0.040 | 0.056 | (0.936) | 1491 | (0.434) |
| Psychological well being | 0.034 | 0.084 | (0.419) | 1748 | (0.030) | 0.069 | 0.090 | (0.442) | 1131 | (0.110) | -0.035 | 0.057 | (0.539) | 1491 | (0.344) |
| Women's empowerment and agency | -0.069 | 0.074 | $\begin{gathered} (0.929) \\ 0.359 \\ (0.778) \end{gathered}$ | 1074 | (0.001) | -0.017 | 0.083 | $\begin{gathered} (0.896) \\ 0.834 \\ (0.896) \end{gathered}$ | 655 | (0.118) | -0.041 | 0.072 | $\begin{gathered} (0.936) \\ 0.565 \\ (0.936) \end{gathered}$ | 951 | (0.117) | Notes: The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible

untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All specifications include strata fixed effects and standard errors clustered at the village level. FRD $q$-values are calculated according to Anderson (2008). The columns denoted R2=R1 reports the p-values corresponding to tests of equality for the estimated coefficients for the same outcomes comparing across rounds. ${ }_{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A3: Heterogeneous effects with respect to gender


Notes: This table reports heterogeneous effects with respect to the gender of the sampled individual (denoted "factor" in the table). We report the between-village comparison of eligible treated individuals vis-a-vis control village individuals; and the within-village comparison of eligible treated and untreated individuals. All specifications include strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A4: Heterogeneous effects with respect to local unemployment rate

|  | Between |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\beta$ | Factor $\beta \times$ Factor P -value |  |  | N | $\beta$ | Factor $\beta \times$ Factor P -value |  |  | N |
| Panel A: Tunisia Round 1 |  |  |  |  |  |  |  |  |  |  |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | $\begin{aligned} & 0.304^{* *} \\ & (0.118) \end{aligned}$ | $\begin{gathered} 0.168 \\ (0.131) \end{gathered}$ | $\begin{gathered} -0.091 \\ (0.172) \end{gathered}$ | (0.599) | 2126 | $\begin{gathered} -0.090 \\ (0.078) \end{gathered}$ | $\begin{gathered} -0.066 \\ (0.085) \end{gathered}$ | $\begin{gathered} 0.133 \\ (0.100) \end{gathered}$ | (0.185) | 1924 |
| Labor market of the household | $\begin{aligned} & 0.247^{* *} \\ & (0.108) \end{aligned}$ | $\begin{gathered} 0.109 \\ (0.120) \end{gathered}$ | $\begin{gathered} -0.037 \\ (0.156) \end{gathered}$ | (0.813) | 2124 | $\begin{gathered} -0.120 \\ (0.079) \end{gathered}$ | $\begin{gathered} -0.079 \\ (0.085) \end{gathered}$ | $\begin{gathered} 0.143 \\ (0.099) \end{gathered}$ | (0.151) | 1921 |
| Consumption expenditures | $\begin{gathered} 0.488^{* * *} \\ (0.148) \end{gathered}$ | $\begin{gathered} 0.390^{* * *} \\ (0.120) \end{gathered}$ | $\begin{gathered} -0.496^{* * *} \\ (0.180) \end{gathered}$ | (0.007) | 2126 | $\begin{gathered} 0.074 \\ (0.082) \end{gathered}$ | $\begin{gathered} -0.038 \\ (0.085) \end{gathered}$ | $\begin{gathered} -0.053 \\ (0.104) \end{gathered}$ | (0.609) | 1924 |
| Assets owning | $\begin{gathered} 0.477^{* * *} \\ (0.154) \end{gathered}$ | $\begin{gathered} 0.317^{*} \\ (0.176) \end{gathered}$ | $\begin{gathered} -0.156 \\ (0.243) \end{gathered}$ | (0.521) | 2126 | $\begin{gathered} -0.075 \\ (0.083) \end{gathered}$ | $\begin{gathered} -0.054 \\ (0.084) \\ \hline \end{gathered}$ | $\begin{aligned} & 0.193^{*} \\ & (0.104) \end{aligned}$ | (0.064) | 1924 |
| Financial inclusion | $\begin{aligned} & 0.289^{*} \\ & (0.155) \end{aligned}$ | $\begin{gathered} -0.014 \\ (0.119) \end{gathered}$ | $\begin{gathered} -0.011 \\ (0.193) \end{gathered}$ | (0.953) | 2126 | $\begin{gathered} 0.223^{* * *} \\ (0.072) \end{gathered}$ | $\begin{gathered} 0.127 \\ (0.080) \end{gathered}$ | $\begin{aligned} & -0.182^{*} \\ & (0.099) \end{aligned}$ | (0.066) | 1924 |
| Human capital | $\begin{gathered} 0.158^{*} \\ (0.085) \end{gathered}$ | $\begin{gathered} 0.161 \\ (0.124) \end{gathered}$ | $\begin{gathered} -0.164 \\ (0.147) \end{gathered}$ | (0.268) | 2126 | $\begin{gathered} 0.104 \\ (0.077) \end{gathered}$ | $\begin{gathered} 0.062 \\ (0.083) \end{gathered}$ | $\begin{gathered} -0.074 \\ (0.101) \end{gathered}$ | (0.466) | 1924 |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | $\begin{gathered} 0.053 \\ (0.193) \end{gathered}$ | $\begin{gathered} -0.016 \\ (0.191) \end{gathered}$ | $\begin{gathered} -0.066 \\ (0.246) \end{gathered}$ | (0.790) | 467 | $\begin{gathered} 0.159 \\ (0.155) \end{gathered}$ | $\begin{gathered} 0.002 \\ (0.181) \end{gathered}$ | $\begin{gathered} -0.073 \\ (0.215) \end{gathered}$ | (0.734) | 462 |
| Social cohesion | $\begin{gathered} 0.039 \\ (0.100) \end{gathered}$ | $\begin{gathered} 0.020 \\ (0.096) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.144) \end{gathered}$ | (0.953) | 2126 | $\begin{aligned} & 0.142^{*} \\ & (0.084) \end{aligned}$ | $\begin{aligned} & 0.183^{* *} \\ & (0.087) \end{aligned}$ | $\begin{gathered} -0.148 \\ (0.112) \end{gathered}$ | (0.189) | 1924 |
| Civic engagement | $\begin{aligned} & 0.367^{* * *} \\ & (0.134) \end{aligned}$ | $\begin{gathered} 0.213 \\ (0.155) \end{gathered}$ | $\begin{gathered} -0.198 \\ (0.190) \end{gathered}$ | (0.299) | 2126 | $\begin{gathered} -0.037 \\ (0.075) \end{gathered}$ | $\begin{gathered} 0.018 \\ (0.082) \end{gathered}$ | $\begin{gathered} 0.003 \\ (0.099) \end{gathered}$ | (0.977) | 1924 |
| Psychological well being | $\begin{gathered} 0.161 \\ (0.099) \end{gathered}$ | $\begin{gathered} -0.009 \\ (0.104) \end{gathered}$ | $\begin{aligned} & 0.220^{*} \\ & (0.132) \end{aligned}$ | (0.100) | 2125 | $\begin{gathered} -0.132 \\ (0.080) \end{gathered}$ | $\begin{gathered} 0.076 \\ (0.084) \end{gathered}$ | $\begin{gathered} 0.149 \\ (0.103) \end{gathered}$ | (0.147) | 1923 |
| Women's empowerment and agency | $\begin{aligned} & 0.305^{* *} \\ & (0.132) \end{aligned}$ | $\begin{gathered} 0.020 \\ (0.105) \end{gathered}$ | $\begin{gathered} -0.069 \\ (0.171) \end{gathered}$ | (0.690) | 1162 | $\begin{gathered} 0.180^{*} \\ (0.097) \end{gathered}$ | $\begin{gathered} 0.060 \\ (0.115) \end{gathered}$ | $\begin{gathered} -0.096 \\ (0.139) \end{gathered}$ | (0.488) | 1015 |
| Panel B: Tunisia Round 2 |  |  |  |  |  |  |  |  |  |  |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | $\begin{gathered} -0.043 \\ (0.085) \end{gathered}$ | $\begin{gathered} -0.059 \\ (0.101) \end{gathered}$ | $\begin{gathered} 0.043 \\ (0.123) \end{gathered}$ | (0.731) | 1748 | $\begin{gathered} -0.052 \\ (0.086) \end{gathered}$ | $\begin{gathered} -0.026 \\ (0.097) \end{gathered}$ | $\begin{aligned} & 0.019 \\ & (0.113) \end{aligned}$ | (0.870) | 1491 |
| Labor market of the household | $\begin{gathered} -0.122 \\ (0.084) \end{gathered}$ | $\begin{gathered} -0.068 \\ (0.092) \end{gathered}$ | $\begin{gathered} 0.079 \\ (0.116) \end{gathered}$ | (0.499) | 1748 | $\begin{gathered} -0.066 \\ (0.092) \end{gathered}$ | $\begin{gathered} -0.057 \\ (0.099) \end{gathered}$ | $\begin{gathered} 0.068 \\ (0.117) \end{gathered}$ | (0.560) | 1491 |
| Consumption expenditures | $\begin{gathered} 0.039 \\ (0.158) \end{gathered}$ | $\begin{gathered} -0.186 \\ (0.138) \end{gathered}$ | $\begin{aligned} & 0.426^{* *} \\ & (0.210) \end{aligned}$ | (0.045) | 1748 | $\begin{gathered} 0.059 \\ (0.075) \end{gathered}$ | $\begin{gathered} 0.312^{* * *} \\ (0.093) \end{gathered}$ | $\begin{gathered} -0.115 \\ (0.108) \end{gathered}$ | (0.286) | 1491 |
| Assets owning | $\begin{aligned} & 0.259^{* *} \\ & (0.126) \end{aligned}$ | $\begin{gathered} 0.009 \\ (0.140) \end{gathered}$ | $\begin{gathered} 0.075 \\ (0.170) \end{gathered}$ | (0.660) | 1748 | $\begin{gathered} 0.040 \\ (0.089) \end{gathered}$ | $\begin{gathered} 0.150 \\ (0.097) \end{gathered}$ | $\begin{gathered} -0.061 \\ (0.116) \end{gathered}$ | (0.598) | 1491 |
| Financial inclusion | $\begin{gathered} 0.092 \\ (0.090) \end{gathered}$ | $\begin{aligned} & 0.174^{*} \\ & (0.098) \end{aligned}$ | $\begin{gathered} -0.196 \\ (0.139) \end{gathered}$ | (0.163) | 1748 | $\begin{gathered} 0.020 \\ (0.088) \end{gathered}$ | $\begin{gathered} -0.014 \\ (0.096) \end{gathered}$ | $\begin{gathered} -0.024 \\ (0.118) \end{gathered}$ | (0.836) | 1491 |
| Human capital | $\begin{gathered} 0.032 \\ (0.104) \end{gathered}$ | $\begin{gathered} -0.105 \\ (0.106) \end{gathered}$ | $\begin{gathered} 0.163 \\ (0.142) \end{gathered}$ | (0.253) | 1748 | $\begin{gathered} 0.028 \\ (0.091) \end{gathered}$ | $\begin{gathered} 0.033 \\ (0.099) \end{gathered}$ | $\begin{gathered} 0.038 \\ (0.118) \end{gathered}$ | (0.748) | 1491 |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | $\begin{gathered} 0.095 \\ (0.154) \end{gathered}$ | $\begin{gathered} 0.177 \\ (0.192) \end{gathered}$ | $\begin{gathered} -0.196 \\ (0.233) \end{gathered}$ | (0.403) | 438 | $\begin{gathered} -0.046 \\ (0.163) \end{gathered}$ | $\begin{gathered} -0.213 \\ (0.197) \end{gathered}$ | $\begin{gathered} 0.193 \\ (0.230) \end{gathered}$ | (0.400) | 397 |
| Social cohesion | $\begin{gathered} 0.086 \\ (0.076) \end{gathered}$ | $\begin{gathered} 0.271 \\ (0.214) \end{gathered}$ | $\begin{gathered} -0.121 \\ (0.237) \end{gathered}$ | (0.611) | 1748 | $\begin{gathered} -0.102 \\ (0.094) \end{gathered}$ | $\begin{gathered} -0.073 \\ (0.102) \end{gathered}$ | $\begin{aligned} & 0.238^{* *} \\ & (0.116) \end{aligned}$ | (0.041) | 1491 |
| Civic engagement | $\begin{gathered} 0.061 \\ (0.111) \end{gathered}$ | $\begin{gathered} -0.011 \\ (0.112) \end{gathered}$ | $\begin{gathered} 0.119 \\ (0.159) \end{gathered}$ | (0.456) | 1748 | $\begin{gathered} 0.022 \\ (0.083) \end{gathered}$ | $\begin{gathered} 0.078 \\ (0.096) \end{gathered}$ | $\begin{gathered} 0.034 \\ (0.111) \end{gathered}$ | (0.763) | 1491 |
| Psychological well being | $\begin{gathered} -0.078 \\ (0.126) \end{gathered}$ | $\begin{aligned} & -0.222^{*} \\ & (0.129) \end{aligned}$ | $\begin{gathered} 0.249 \\ (0.163) \end{gathered}$ | (0.131) | 1748 | $\begin{gathered} -0.015 \\ (0.089) \end{gathered}$ | $\begin{gathered} 0.065 \\ (0.098) \end{gathered}$ | $\begin{gathered} -0.031 \\ (0.115) \end{gathered}$ | (0.789) | 1491 |
| Women's empowerment and agency | $\begin{array}{r} -0.060 \\ (0.107) \\ \hline \end{array}$ | $\begin{gathered} -0.110 \\ (0.119) \\ \hline \end{gathered}$ | $\begin{gathered} 0.013 \\ (0.154) \\ \hline \end{gathered}$ | (0.935) | 1074 | $\begin{gathered} 0.060 \\ (0.109) \\ \hline \end{gathered}$ | $\begin{gathered} 0.070 \\ (0.121) \\ \hline \end{gathered}$ | $\begin{array}{r} -0.174 \\ (0.144) \\ \hline \end{array}$ | (0.228) | 951 |

Notes: This table reports heterogeneous effects with respect to the local village-level unemployment rate as reported in the 2014 population census (denoted "factor" in the table). We report the between-village comparison of eligible treated individuals vis-a-vis control village individuals; and the within-village comparison of eligible treated and untreated individuals. All specifications include strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A5: Heterogeneous effects with respect to local mean probability of economic shocks

|  | Between |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\beta$ | Factor | x Facto | -value | N | $\beta$ | Factor | x Fact | P-value | N |
| Panel A: Tunisia Round 1 |  |  |  |  |  |  |  |  |  |  |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | $\begin{gathered} 0.278^{* * *} \\ (0.099) \end{gathered}$ | $\begin{aligned} & 0.249^{*} \\ & (0.142) \end{aligned}$ | $\begin{gathered} -0.110 \\ (0.178) \end{gathered}$ | (0.539) | 2126 | $\begin{gathered} -0.140^{*} \\ (0.080) \end{gathered}$ | $\begin{gathered} -0.102 \\ (0.085) \end{gathered}$ | $\begin{aligned} & 0.202^{* *} \\ & (0.101) \end{aligned}$ | (0.046) | 1924 |
| Labor market of the household | $\begin{aligned} & 0.220^{* *} \\ & (0.090) \end{aligned}$ | $\begin{aligned} & 0.243^{*} \\ & (0.134) \end{aligned}$ | $\begin{gathered} -0.072 \\ (0.169) \end{gathered}$ | (0.670) | 2124 | $\begin{aligned} & -0.189^{* *} \\ & (0.083) \end{aligned}$ | $\begin{gathered} -0.101 \\ (0.088) \end{gathered}$ | $\begin{aligned} & 0.241^{* *} \\ & (0.102) \end{aligned}$ | (0.018) | 1921 |
| Consumption expenditures | $\begin{gathered} 0.360^{* * *} \\ (0.132) \end{gathered}$ | $\begin{gathered} 0.179 \\ (0.143) \end{gathered}$ | $\begin{gathered} -0.232 \\ (0.192) \end{gathered}$ | (0.231) | 2126 | $\begin{gathered} 0.080 \\ (0.074) \end{gathered}$ | $\begin{gathered} 0.011 \\ (0.081) \end{gathered}$ | $\begin{gathered} -0.058 \\ (0.100) \end{gathered}$ | (0.562) | 1924 |
| Assets owning | $\begin{aligned} & 0.414^{* *} \\ & (0.183) \end{aligned}$ | $\begin{gathered} 0.154 \\ (0.179) \end{gathered}$ | $\begin{gathered} -0.035 \\ (0.253) \end{gathered}$ | (0.890) | 2126 | $\begin{gathered} -0.112 \\ (0.092) \end{gathered}$ | $\begin{gathered} -0.138 \\ (0.090) \end{gathered}$ | $\begin{aligned} & 0.235^{* *} \\ & (0.109) \end{aligned}$ | (0.031) | 1924 |
| Financial inclusion | $\begin{aligned} & 0.200^{*} \\ & (0.113) \end{aligned}$ | $\begin{gathered} 0.029 \\ (0.128) \end{gathered}$ | $\begin{gathered} 0.110 \\ (0.187) \end{gathered}$ | (0.558) | 2126 | $\begin{gathered} 0.124 \\ (0.078) \end{gathered}$ | $\begin{gathered} 0.041 \\ (0.083) \end{gathered}$ | $\begin{gathered} -0.012 \\ (0.101) \end{gathered}$ | (0.903) | 1924 |
| Human capital | $\begin{gathered} 0.048 \\ (0.069) \end{gathered}$ | $\begin{gathered} 0.084 \\ (0.132) \end{gathered}$ | $\begin{gathered} 0.023 \\ (0.149) \end{gathered}$ | (0.880) | 2126 | $\begin{gathered} 0.069 \\ (0.076) \end{gathered}$ | $\begin{gathered} 0.108 \\ (0.082) \end{gathered}$ | $\begin{gathered} -0.013 \\ (0.101) \end{gathered}$ | (0.898) | 1924 |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | $\begin{gathered} 0.060 \\ (0.171) \end{gathered}$ | $\begin{gathered} 0.283 \\ (0.184) \end{gathered}$ | $\begin{gathered} -0.120 \\ (0.230) \end{gathered}$ | (0.603) | 467 | $\begin{gathered} 0.030 \\ (0.253) \end{gathered}$ | $\begin{gathered} 0.084 \\ (0.244) \end{gathered}$ | $\begin{gathered} 0.103 \\ (0.280) \end{gathered}$ | (0.713) | 462 |
| Social cohesion | $\begin{gathered} 0.153 \\ (0.106) \end{gathered}$ | $\begin{aligned} & 0.171^{*} \\ & (0.090) \end{aligned}$ | $\begin{gathered} -0.237 \\ (0.146) \end{gathered}$ | (0.109) | 2126 | $\begin{gathered} 0.009 \\ (0.071) \end{gathered}$ | $\begin{gathered} -0.101 \\ (0.080) \end{gathered}$ | $\begin{gathered} 0.074 \\ (0.105) \end{gathered}$ | (0.481) | 1924 |
| Civic engagement | $\begin{gathered} 0.364^{* * *} \\ (0.129) \end{gathered}$ | $\begin{aligned} & 0.492^{* * *} \\ & (0.146) \end{aligned}$ | $\begin{aligned} & -0.339^{*} \\ & (0.184) \end{aligned}$ | (0.069) | 2126 | $\begin{gathered} -0.180^{* *} \\ (0.083) \end{gathered}$ | $\begin{gathered} -0.089 \\ (0.086) \end{gathered}$ | $\begin{aligned} & 0.229^{* *} \\ & (0.102) \end{aligned}$ | (0.026) | 1924 |
| Psychological well being | $\begin{gathered} 0.299 * * * \\ (0.098) \end{gathered}$ | $\begin{gathered} 0.044 \\ (0.100) \end{gathered}$ | $\begin{gathered} -0.036 \\ (0.132) \end{gathered}$ | (0.785) | 2125 | $\begin{gathered} -0.051 \\ (0.086) \end{gathered}$ | $\begin{gathered} 0.009 \\ (0.087) \end{gathered}$ | $\begin{gathered} 0.007 \\ (0.106) \end{gathered}$ | (0.946) | 1923 |
| Women's empowerment and agency | $\begin{gathered} 0.172 \\ (0.124) \end{gathered}$ | $\begin{gathered} 0.110 \\ (0.100) \end{gathered}$ | $\begin{gathered} 0.099 \\ (0.165) \end{gathered}$ | (0.550) | 1162 | $\begin{aligned} & 0.174^{* *} \\ & (0.082) \end{aligned}$ | $\begin{aligned} & 0.219^{* *} \\ & (0.100) \end{aligned}$ | $\begin{gathered} -0.067 \\ (0.126) \end{gathered}$ | (0.593) | 1015 |
| Panel B: Tunisia Round 2 |  |  |  |  |  |  |  |  |  |  |
| Primary Outcomes |  |  |  |  |  |  |  |  |  |  |
| Labor market of the main respondent | $\begin{gathered} -0.043 \\ (0.087) \end{gathered}$ | $\begin{gathered} 0.128 \\ (0.101) \end{gathered}$ | $\begin{gathered} -0.032 \\ (0.124) \end{gathered}$ | (0.800) | 1748 | $\begin{gathered} -0.031 \\ (0.084) \end{gathered}$ | $\begin{gathered} 0.110 \\ (0.095) \end{gathered}$ | $\begin{gathered} -0.018 \\ (0.112) \end{gathered}$ | (0.870) | 1491 |
| Labor market of the household | $\begin{gathered} -0.089 \\ (0.083) \end{gathered}$ | $\begin{gathered} 0.015 \\ (0.096) \end{gathered}$ | $\begin{gathered} -0.003 \\ (0.120) \end{gathered}$ | (0.981) | 1748 | $\begin{gathered} 0.064 \\ (0.086) \end{gathered}$ | $\begin{gathered} 0.153 \\ (0.095) \end{gathered}$ | $\begin{gathered} -0.144 \\ (0.114) \end{gathered}$ | (0.205) | 1491 |
| Consumption expenditures | $\begin{gathered} 0.094 \\ (0.148) \end{gathered}$ | $\begin{gathered} 0.084 \\ (0.149) \end{gathered}$ | $\begin{gathered} 0.214 \\ (0.217) \end{gathered}$ | (0.327) | 1748 | $\begin{gathered} 0.036 \\ (0.073) \end{gathered}$ | $\begin{gathered} 0.327^{* * *} \\ (0.089) \end{gathered}$ | $\begin{gathered} -0.086 \\ (0.106) \end{gathered}$ | (0.416) | 1491 |
| Assets owning | $\begin{gathered} 0.196 \\ (0.120) \end{gathered}$ | $\begin{gathered} -0.008 \\ (0.139) \end{gathered}$ | $\begin{gathered} 0.169 \\ (0.172) \end{gathered}$ | (0.331) | 1748 | $\begin{gathered} -0.044 \\ (0.087) \end{gathered}$ | $\begin{gathered} 0.086 \\ (0.095) \end{gathered}$ | $\begin{gathered} 0.069 \\ (0.115) \end{gathered}$ | (0.551) | 1491 |
| Financial inclusion | $\begin{gathered} 0.003 \\ (0.106) \end{gathered}$ | $\begin{gathered} 0.184^{*} \\ (0.099) \end{gathered}$ | $\begin{gathered} -0.079 \\ (0.146) \end{gathered}$ | (0.588) | 1748 | $\begin{gathered} -0.014 \\ (0.096) \end{gathered}$ | $\begin{gathered} 0.078 \\ (0.100) \end{gathered}$ | $\begin{gathered} 0.030 \\ (0.121) \end{gathered}$ | (0.807) | 1491 |
| Human capital | $\begin{gathered} -0.046 \\ (0.095) \end{gathered}$ | $\begin{gathered} -0.131 \\ (0.098) \end{gathered}$ | $\begin{aligned} & 0.299 * * \\ & (0.130) \end{aligned}$ | (0.024) | 1748 | $\begin{gathered} 0.087 \\ (0.065) \end{gathered}$ | $\begin{gathered} 0.222^{* * *} \\ (0.085) \end{gathered}$ | $\begin{gathered} -0.065 \\ (0.105) \end{gathered}$ | (0.538) | 1491 |
| Secondary Outcomes |  |  |  |  |  |  |  |  |  |  |
| Coping mechanisms | $\begin{gathered} 0.094 \\ (0.161) \end{gathered}$ | $\begin{gathered} 0.343^{*} \\ (0.188) \end{gathered}$ | $\begin{gathered} -0.310 \\ (0.233) \end{gathered}$ | (0.187) | 438 | $\begin{gathered} -0.073 \\ (0.199) \end{gathered}$ | $\begin{gathered} -0.164 \\ (0.208) \end{gathered}$ | $\begin{gathered} 0.186 \\ (0.243) \end{gathered}$ | (0.443) | 397 |
| Social cohesion | $\begin{gathered} 0.131 \\ (0.091) \end{gathered}$ | $\begin{gathered} 0.163 \\ (0.222) \end{gathered}$ | $\begin{gathered} -0.188 \\ (0.254) \end{gathered}$ | (0.462) | 1748 | $\begin{gathered} 0.026 \\ (0.078) \end{gathered}$ | $\begin{gathered} -0.080 \\ (0.089) \end{gathered}$ | $\begin{gathered} 0.018 \\ (0.108) \end{gathered}$ | (0.866) | 1491 |
| Civic engagement | $\begin{aligned} & 0.258^{* *} \\ & (0.115) \end{aligned}$ | $\begin{gathered} 0.025 \\ (0.111) \end{gathered}$ | $\begin{gathered} -0.211 \\ (0.158) \end{gathered}$ | (0.186) | 1748 | $\begin{gathered} 0.016 \\ (0.097) \end{gathered}$ | $\begin{aligned} & -0.246^{* *} \\ & (0.102) \end{aligned}$ | $\begin{gathered} 0.042 \\ (0.117) \end{gathered}$ | (0.723) | 1491 |
| Psychological well being | $\begin{gathered} 0.141 \\ (0.113) \end{gathered}$ | $\begin{gathered} 0.032 \\ (0.151) \end{gathered}$ | $\begin{gathered} -0.179 \\ (0.178) \end{gathered}$ | (0.320) | 1748 | $\begin{gathered} -0.009 \\ (0.099) \end{gathered}$ | $\begin{gathered} -0.097 \\ (0.103) \end{gathered}$ | $\begin{gathered} -0.039 \\ (0.120) \end{gathered}$ | (0.744) | 1491 |
| Women's empowerment and agency | $\begin{gathered} 0.005 \\ (0.115) \\ \hline \end{gathered}$ | $\begin{aligned} & 0.230^{*} \\ & (0.118) \\ & \hline \end{aligned}$ | $\begin{gathered} -0.228 \\ (0.158) \\ \hline \end{gathered}$ | (0.154) | 1074 | $\begin{gathered} 0.067 \\ (0.121) \end{gathered}$ | $\begin{gathered} 0.166 \\ (0.128) \end{gathered}$ | $\begin{gathered} -0.163 \\ (0.150) \end{gathered}$ | (0.277) | 951 |

Notes: This table reports heterogeneous effects with respect to the local prevalence of adverse shocks over the past year as reported in the first follow-up survey round conducted in 2016 (denoted "factor" in the table). We report the between-village comparison of eligible treated individuals vis-a-vis control village individuals; and the within-village comparison of eligible treated and untreated individuals. All specifications include strata fixed effects and standard errors clustered at the village level.

Table A6: Lee bounds for estimated treatment coefficients in round one

|  | Between |  |  |  |  |  | Spillovers |  |  |  |  |  | Within |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | lower | $p$-value | upper | p-value | N | N selected | lower | p-value | upper | p-value | N | N selected | lower | p-value | upper p | p-value | N | N selected |
| Labor market of the main respondent | 0.150*** | 0.006 | $0.614^{* * *}$ | 0.000 | 2474 | 2122 | -0.286 | 0.542 | $0.113^{* * *}$ | 0.000 | 1663 | 1385 | $-0.286^{* * *}$ | 0.000 | 0.113* | 0.054 | 2537 | 1919 |
|  | (0.055) |  | (0.043) |  |  |  | (0.074) |  | (0.058) |  |  |  | (0.065) |  | (0.059) |  |  |  |
| Labor market of the household | 0.148*** | 0.008 | 0.657*** | 0.000 | 2474 | 2120 | -0.402 | 0.961 | 0.052*** | 0.000 | 1663 | 1384 | -0.402*** | 0.000 | 0.052 | 0.336 | 2537 | 1916 |
|  | (0.056) |  | (0.040) |  |  |  | (2.716) |  | (0.010) |  |  |  | (0.050) |  | (0.054) |  |  |  |
| Consumption expenditures | -0.028 | 0.645 | 0.655*** | 0.000 | 2474 | 2122 | -0.255*** | 0.003 | 0.239*** | 0.000 | 1663 | 1385 | -0.255*** | 0.000 | 0.239*** | 0.000 | 2537 | 1919 |
|  | (0.060) |  | (0.049) |  |  |  | (0.073) |  | (0.060) |  |  |  | (0.065) |  | (0.062) |  |  |  |
| Assets owning | 0.123** | 0.023 | 0.769*** | 0.000 | 2474 | 2122 | -0.248 | 0.133 | 0.286*** | 0.000 | 1663 | 1385 | -0.248*** | 0.000 | 0.286*** | 0.000 | 2537 | 1919 |
|  | (0.054) |  | (0.049) |  |  |  | (0.066) |  | (0.060) |  |  |  | (0.067) |  | (0.062) |  |  |  |
| Financial inclusion | 0.023 | 0.757 | 0.566*** | 0.000 | 2474 | 2122 | -0.096*** | 0.001 | 0.262*** | 0.000 | 1663 | 1385 | -0.096 | 0.116 | 0.262*** | 0.000 | 2537 | 1919 |
|  | (0.073) |  | (0.062) |  |  |  | (0.090) |  | (0.076) |  |  |  | (0.061) |  | (0.061) |  |  |  |
| Human capital | -0.082 | 0.143 | 0.458*** | 0.000 | 2474 | 2122 | $-0.273^{* * *}$ | 0.000 | 0.170*** | 0.000 | 1663 | 1385 | -0.273*** | 0.000 | 0.170*** | 0.004 | 2537 | 1919 |
|  | (0.056) |  | (0.045) |  |  |  | (0.070) |  | (0.054) |  |  |  | (0.068) |  | (0.058) |  |  |  |
| Coping mechanisms | -0.320 | 0.105 | 0.406* | 0.053 | 2474 | 466 | -0.278 | 0.171 | 0.636 | 0.683 | 1663 | 251 | -0.278* | 0.058 | 0.636*** | 0.000 | 2537 | 461 |
|  | (0.197) |  | (0.210) |  |  |  | (0.209) |  | (0.176) |  |  |  | (0.147) |  | (0.164) |  |  |  |
| Social cohesion | -4.391 | . | 0.159 | . | 2474 | 2122 | -3.463 | . | 0.179 | . | 1663 | 1385 | -3.463 | 0.756 | 0.179 | 0.961 | 2537 | 1919 |
|  | (.) |  | (.) |  |  |  | (.) |  | (.) |  |  |  | (11.152) |  | (3.658) |  |  |  |
| Civic engagement | -0.043 | 0.408 | 0.617*** | 0.000 | 2474 | 2122 | $-0.247^{* * *}$ | 0.003 | 0.185*** | 0.000 | 1663 | 1385 | $-0.247^{* * *}$ | 0.000 | 0.185*** | 0.003 | 2537 | 1919 |
|  | (0.052) |  | (0.051) |  |  |  | (0.064) |  | (0.065) |  |  |  | (0.063) |  | (0.062) |  |  |  |
| Psychological well being | -0.058 | 0.220 | 0.624*** | 0.000 | 2474 | 2121 | -0.280*** | 0.003 | 0.247*** | 0.000 | 1663 | 1385 | -0.280*** | 0.000 | 0.247*** | 0.000 | 2537 | 1918 |
|  | (0.047) |  | (0.054) |  |  |  | (0.057) |  | (0.065) |  |  |  | (0.065) |  | (0.062) |  |  |  |
| Women's empowerment and agency | 0.128 | 0.140 | 0.458*** | 0.000 | 1294 | 1164 | -0.037* | 0.074 | 0.227*** | 0.000 | 832 | 724 | -0.037 | 0.741 | 0.227*** | 0.004 | 1248 | 1018 |
|  | (0.087) |  | (0.066) |  |  |  | (0.116) |  | (0.097) |  |  |  | (0.111) |  | (0.079) |  |  |  |

Notes: This table reports the results of bounds on the estimated treatment effects in the first follow-up survey conducted one years post-treatment, allowing for differential selection into the survey sample, constructed following Lee (2009). ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A7: Predictors of attrition between the first and second follow-up rounds

|  | Covariate |  |  |  |
| :--- | :---: | :---: | :---: | :---: | Treated | Interaction |
| :--- | N.

Notes: Each row reports the results of running a regression in which a binary indicator for attrition in the second follow-up survey round is regressed on the covariate of interest, the treatment indicator, and the interaction between covariate and treatment. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A8: Lee bounds for estimated treatment coefficients in round two

|  | Between |  |  |  |  |  | Spillovers |  |  |  |  |  | Within |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | lower | $p$-value | upper | p -value | N | N selected | lower | p-value | upper | p-value | N | N selected | lower | p-value | upper | p-value | N | N selected |
| Labor market of the main respondent | $\begin{gathered} -0.106^{*} \\ (0.054) \end{gathered}$ | 0.051 | $\begin{aligned} & 0.192^{* *} \\ & (0.077) \end{aligned}$ | 0.013 | 2126 | 1748 | $\begin{gathered} -0.122^{*} \\ (0.067) \end{gathered}$ | 0.069 | $\begin{gathered} 0.359^{* * *} \\ (0.075) \end{gathered}$ | 0.000 | 1386 | 1131 | $\begin{aligned} & -0.222^{*} \\ & (0.114) \end{aligned}$ | 0.051 | $\begin{gathered} 0.004 \\ (0.062) \end{gathered}$ | 0.948 | 1924 | 1491 |
| Labor market of the household | $\begin{aligned} & -0.150^{* *} \\ & (0.063) \end{aligned}$ | 0.018 | $\begin{gathered} 0.155^{* * *} \\ (0.058) \end{gathered}$ | 0.007 | 2126 | 1748 | $\begin{aligned} & -0.168^{* *} \\ & (0.068) \end{aligned}$ | 0.013 | $\begin{gathered} 0.286 * * * \\ (0.065) \end{gathered}$ | 0.000 | 1386 | 1131 | $\begin{gathered} -0.204^{* * *} \\ (0.056) \end{gathered}$ | 0.000 | $\begin{gathered} 0.012 \\ (0.054) \end{gathered}$ | 0.830 | 1924 | 1491 |
| Consumption expenditures | $\begin{aligned} & 0.118^{* *} \\ & (0.058) \\ & \hline \end{aligned}$ | 0.041 | $\begin{aligned} & 0.489 * * * \\ & (0.063) \end{aligned}$ | 0.000 | 2126 | 1748 | $\begin{gathered} 0.076 \\ (0.066) \end{gathered}$ | 0.248 | $\begin{gathered} 0.608^{* * *} \\ (0.074) \end{gathered}$ | 0.000 | 1386 | 1131 | $\begin{aligned} & -0.193^{* *} \\ & (0.087) \end{aligned}$ | 0.027 | $\begin{gathered} 0.071 \\ (0.069) \end{gathered}$ | 0.301 | 1924 | 1491 |
| Assets owning | $\begin{aligned} & 0.106 * * \\ & (0.049) \end{aligned}$ | 0.032 | $\begin{gathered} 0.488^{* * *} \\ (0.058) \end{gathered}$ | 0.000 | 2126 | 1748 | $\begin{gathered} 0.008 \\ (0.074) \end{gathered}$ | 0.916 | $\begin{gathered} 0.559^{* * *} \\ (0.059) \end{gathered}$ | 0.000 | 1386 | 1131 | $\begin{gathered} -0.157^{* *} \\ (0.076) \end{gathered}$ | 0.038 | $\begin{aligned} & 0.144^{*} \\ & (0.079) \end{aligned}$ | 0.067 | 1924 | 1491 |
| Financial inclusion | $\begin{gathered} -0.079 \\ (0.065) \end{gathered}$ | 0.221 | $\begin{gathered} 0.247^{* * *} \\ (0.068) \end{gathered}$ | 0.000 | 2126 | 1748 | $\begin{aligned} & -0.135^{*} \\ & (0.074) \end{aligned}$ | 0.068 | $\begin{gathered} 0.340^{* * *} \\ (0.066) \end{gathered}$ | 0.000 | 1386 | 1131 | $\begin{gathered} -0.197^{* *} \\ (0.097) \end{gathered}$ | 0.042 | $\begin{gathered} 0.062 \\ (0.055) \end{gathered}$ | 0.259 | 1924 | 1491 |
| Social cohesion | $\begin{gathered} -1.835^{* * *} \\ (0.446) \end{gathered}$ | 0.000 | $\begin{aligned} & 0.161^{* * *} \\ & (0.034) \end{aligned}$ | 0.000 | 2126 | 1748 | $\begin{gathered} -1.873^{* * *} \\ (0.299) \end{gathered}$ | 0.000 | $\begin{gathered} 0.137^{* * *} \\ (0.052) \end{gathered}$ | 0.008 | 1386 | 1131 | $\begin{gathered} -0.081 \\ (0.064) \end{gathered}$ | 0.200 | $\begin{aligned} & 3.218^{* * *} \\ & (0.999) \end{aligned}$ | 0.001 | 1924 | 1491 |
| Civic engagement | $\begin{gathered} -0.194^{* * *} \\ (0.043) \end{gathered}$ | 0.000 | $\begin{aligned} & 0.274^{* * *} \\ & (0.043) \end{aligned}$ | 0.000 | 2126 | 1748 | $\begin{gathered} -0.232^{* * *} \\ (0.055) \end{gathered}$ | 0.000 | $\begin{gathered} 0.363^{* * *} \\ (0.065) \end{gathered}$ | 0.000 | 1386 | 1131 | $\begin{aligned} & -0.146^{* *} \\ & (0.074) \end{aligned}$ | 0.050 | $\begin{gathered} 0.078 \\ (0.073) \end{gathered}$ | 0.284 | 1924 | 1491 |
| Psychological well being | $\begin{aligned} & -0.140^{* * *} \\ & (0.052) \end{aligned}$ | 0.007 | $\begin{gathered} 0.236^{* * *} \\ (0.072) \end{gathered}$ | 0.001 | 2126 | 1748 | $\begin{gathered} -0.188^{* * *} \\ (0.062) \end{gathered}$ | 0.003 | $\begin{gathered} 0.351^{* * *} \\ (0.061) \end{gathered}$ | 0.000 | 1386 | 1131 | $\begin{gathered} -0.169^{* * *} \\ (0.063) \end{gathered}$ | 0.007 | $\begin{aligned} & 0.154^{* *} \\ & (0.077) \end{aligned}$ | 0.044 | 1924 | 1491 |
| Women's empowerment and agency | $\begin{gathered} -0.204^{* * *} \\ (0.077) \\ \hline \end{gathered}$ | 0.008 | $\begin{gathered} -0.017 \\ (0.064) \end{gathered}$ | 0.787 | 1174 | 1074 | $\begin{gathered} -0.098 \\ (0.076) \\ \hline \end{gathered}$ | 0.196 | $\begin{gathered} 0.048 \\ (0.176) \\ \hline \end{gathered}$ | 0.786 | 736 | 655 | $\begin{gathered} -0.132 \\ (0.098) \end{gathered}$ | 0.179 | $\begin{gathered} -0.014 \\ (0.079) \end{gathered}$ | 0.861 | 1026 | 951 |

Notes: This table reports the results of bounds on the estimated treatment effects in the first follow-up survey conducted one years post-treatment, allowing for differential selection into the survey sample, constructed following Lee (2009). ***p<0.01, ** $p<0.05,{ }^{*} \mathrm{p}<0.10$

Table A9: Estimated treatment effects: respondent labor market outcomes (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Had an IGA last 4 weeks | 0.091 | 0.079*** | 0.025 | $\begin{gathered} 0.002 \\ (0.007) \end{gathered}$ | 2123 | 0.091 | 0.096*** | 0.022 | $\begin{gathered} 0.000 \\ (0.001) \end{gathered}$ | 1384 | 0.178 | -0.015 | 0.019 | $\begin{gathered} 0.428 \\ (0.680) \end{gathered}$ | 1921 |
| Number of days work main IGA last 4 weeks | 1.378 | $1.120^{* *}$ | 0.440 | $\begin{gathered} 0.013 \\ (0.020) \end{gathered}$ | 2097 | 1.378 | 1.350*** | 0.391 | $\begin{gathered} 0.001 \\ (0.002) \end{gathered}$ | 1374 | 2.528 | -0.134 | 0.325 | $\begin{gathered} 0.680 \\ (0.680) \end{gathered}$ | 1893 |
| Looked for paid work in the last 30 day | 0.352 | 0.026 | 0.033 | $\begin{gathered} 0.427 \\ (0.428) \\ \hline \end{gathered}$ | 2125 | 0.352 | 0.015 |  | $\begin{gathered} 0.717 \\ (0.718) \end{gathered}$ | 1385 | 0.355 | 0.017 | 0.024 | $\begin{gathered} 0.481 \\ (0.680) \end{gathered}$ | 1924 |

Notes: This table presents regression results for labor market outcomes of the main respondent (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A10: Estimated treatment effects: respondent labor market outcomes (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Had an IGA last 4 weeks | 0.183 | $-0.052^{* *}$ | 0.020 | 0.012 | 1748 | 0.183 | -0.034 | 0.022 | 0.136 | 1131 | 0.146 | -0.016 | 0.020 | 0.409 | 1491 |
|  |  |  |  | (0.018) |  |  |  |  | (0.147) |  |  |  |  | (0.614) |  |
| Number of days work main IGA last 4 weeks | 3.425 | -1.101** | 0.456 | 0.018 | 1744 | 3.425 | -0.731 | 0.498 | 0.146 | 1128 | 2.714 | -0.389 | 0.418 | 0.352 | 1490 |
|  |  |  |  | (0.019) |  |  |  |  | (0.147) |  |  |  |  | (0.614) |  |
| Looked for paid work in the last 30 days | 0.224 | $0.101^{* * *}$ | 0.035 | 0.005 | 1484 | 0.224 | 0.095** | 0.038 | 0.015 | 940 | 0.308 | 0.005 | 0.028 | 0.871 | 1290 |
|  |  |  |  | (0.017) |  |  |  |  | (0.046) |  |  |  |  | (0.871) |  |

Notes: This table presents regression results for labor market outcomes of the main respondent (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A11: Estimated treatment effects: household labor market outcomes (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| The head of HH has employment | 0.201 | 0.136** | 0.051 | $\begin{gathered} 0.010 \\ (0.013) \end{gathered}$ | 682 | 0.201 | 0.125*** | 0.045 | $\begin{gathered} 0.007 \\ (0.007) \end{gathered}$ | 469 | 0.305 | 0.012 | 0.039 | $\begin{gathered} 0.752 \\ (0.752) \end{gathered}$ | 633 |
| Other member of the HH has employment | 0.036 | 0.038** | 0.015 | $\begin{gathered} 0.013 \\ (0.013) \\ \hline \end{gathered}$ | 1442 | 0.036 | 0.057*** | 0.017 | $\begin{gathered} 0.001 \\ (0.003) \end{gathered}$ | 916 | 0.089 | -0.018 | 0.017 | $\begin{gathered} 0.275 \\ (0.551) \end{gathered}$ | 1288 |

Notes: This table presents regression results for labor market outcomes of the household (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A12: Estimated treatment effects: household labor market outcomes (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| The head of HH has employment | 0.256 | -0.066** | 0.032 | 0.044 | 808 | 0.256 | -0.020 | 0.037 | 0.586 | 559 | 0.234 | -0.039 | 0.036 | 0.275 | 633 |
|  |  |  |  | (0.089) |  |  |  |  | (0.586) |  |  |  |  | (0.551) |  |
| Other members of the HH have employment | 0.101 | -0.011 | 0.022 | 0.607 | 940 | 0.101 | -0.018 | 0.025 | 0.478 | 572 | 0.078 | 0.007 | 0.020 | 0.744 | 858 |
|  |  |  |  | (0.607) |  |  |  |  | (0.586) |  |  |  |  | (0.744) |  |

Notes: This table presents regression results for labor market outcomes of the household (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A13: Estimated treatment effects: consumption (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Value of meat and fish consumed | 3.978 | -0.405 | 0.516 | $\begin{gathered} 0.434 \\ (0.497) \end{gathered}$ | 2126 | 3.978 | -0.621 | 0.590 | $\begin{gathered} 0.295 \\ (0.606) \end{gathered}$ | 1386 | 3.391 | 0.218 | 0.348 | $\begin{gathered} 0.532 \\ (0.608) \end{gathered}$ | 1924 |
| Value of fruit and legumes/vegetables consumed | 10.932 | 1.454 | 1.165 | $\begin{gathered} 0.216 \\ (0.314) \end{gathered}$ | 2126 | 10.932 | 4.910*** | 1.507 | $\begin{gathered} 0.002 \\ (0.027) \end{gathered}$ | 1386 | 16.228 | $-3.376^{* * *}$ | 0.709 | $\begin{gathered} 0.000 \\ (0.001) \end{gathered}$ | 1924 |
| Value of egg and milk consumed | 2.145 | 0.897** | 0.362 | $\begin{gathered} 0.015 \\ (0.104) \end{gathered}$ | 2126 | 2.145 | 0.635 | 0.392 | $\begin{gathered} 0.109 \\ (0.422) \end{gathered}$ | 1386 | 2.774 | 0.241 | 0.223 | $\begin{gathered} 0.280 \\ (0.374) \end{gathered}$ | 1924 |
| Value of oil an fat consumed | 1.722 | 0.292 | 0.209 | $\begin{gathered} 0.166 \\ (0.285) \end{gathered}$ | 2126 | 1.722 | 0.113 | 0.275 | $\begin{gathered} 0.682 \\ (0.893) \end{gathered}$ | 1386 | 1.838 | 0.203 | 0.144 | $\begin{gathered} 0.158 \\ (0.254) \end{gathered}$ | 1924 |
| Value of beverages consumed | 0.724 | 0.043 | 0.168 | $\begin{gathered} 0.800 \\ (0.854) \end{gathered}$ | 2126 | 0.724 | -0.095 | 0.176 | $\begin{gathered} 0.591 \\ (0.860) \end{gathered}$ | 1386 | 0.649 | 0.138 | 0.093 | $\begin{gathered} 0.139 \\ (0.253) \end{gathered}$ | 1924 |
| Value of cigarette and alcohol consumed | 5.259 | 0.789 | 0.829 | $\begin{gathered} 0.345 \\ (0.460) \end{gathered}$ | 2126 | 5.259 | 1.742* | 0.994 | $\begin{gathered} 0.084 \\ (0.422) \end{gathered}$ | 1386 | 7.001 | -0.963* | 0.550 | $\begin{gathered} 0.080 \\ (0.253) \end{gathered}$ | 1924 |
| Value of other consumption | 12.782 | 5.134*** | 1.142 | $\begin{gathered} 0.000 \\ (0.001) \end{gathered}$ | 2126 | 12.782 | $3.838^{* * *}$ | 1.370 | $\begin{gathered} 0.006 \\ (0.052) \end{gathered}$ | 1386 | 16.217 | 1.535* | 0.872 | $\begin{gathered} 0.079 \\ (0.253) \end{gathered}$ | 1924 |
| Expenditures on healthcare (medical expenses) | 49.571 | -6.953* | 3.854 | $\begin{gathered} 0.075 \\ (0.172) \end{gathered}$ | 1829 | 49.571 | -0.835 | 4.458 | $\begin{gathered} 0.852 \\ (0.904) \end{gathered}$ | 1200 | 50.008 | $-6.974^{* *}$ | 3.035 | $\begin{gathered} 0.022 \\ (0.116) \end{gathered}$ | 1607 |
| Expenditures on education | 18.214 | 1.570 | 1.809 | $\begin{gathered} 0.388 \\ (0.478) \end{gathered}$ | 1899 | 18.214 | -0.202 | 1.672 | $\begin{gathered} 0.904 \\ (0.904) \end{gathered}$ | 1261 | 17.666 | 1.882 | 1.280 | $\begin{gathered} 0.142 \\ (0.253) \end{gathered}$ | 1696 |
| Expenditures on leisure | 10.567 | -0.211 | 1.919 | $\begin{gathered} 0.913 \\ (0.913) \end{gathered}$ | 1757 | 10.567 | 0.642 | 2.142 | $\begin{gathered} 0.765 \\ (0.893) \end{gathered}$ | 1208 | 11.704 | -0.849 | 1.072 | $\begin{gathered} 0.428 \\ (0.527) \end{gathered}$ | 1557 |
| Expenditure on transportation | 30.393 | 5.296 | 3.604 | $\begin{gathered} 0.146 \\ (0.285) \end{gathered}$ | 1806 | 30.393 | 5.244 | 3.442 | $\begin{gathered} 0.132 \\ (0.422) \end{gathered}$ | 1209 | 35.876 | 0.566 | 1.980 | $\begin{gathered} 0.775 \\ (0.775) \end{gathered}$ | 1573 |
| Expenditures on electricity, gas water, etc | 68.508 | 7.435 | 5.470 | $\begin{gathered} 0.178 \\ (0.285) \end{gathered}$ | 1963 | 68.508 | -1.749 | 6.272 | $\begin{gathered} 0.781 \\ (0.893) \end{gathered}$ | 1294 | 67.106 | 8.590** | 3.518 | $\begin{gathered} 0.015 \\ (0.116) \end{gathered}$ | 1761 |
| Expenditures on communication | 10.208 | 2.419* | 1.311 | $\begin{gathered} 0.069 \\ (0.172) \end{gathered}$ | 1829 | 10.208 | 2.135 | 1.683 | $\begin{gathered} 0.208 \\ (0.556) \end{gathered}$ | 1216 | 12.608 | 0.273 | 0.899 | $\begin{gathered} 0.761 \\ (0.775) \end{gathered}$ | 1595 |
| Expenditures on household chores | 10.891 | 1.956* | 1.055 | $\begin{gathered} 0.068 \\ () \end{gathered}$ | 1615 | 10.891 | 0.987 | 1.234 | $\begin{gathered} 0.426 \\ 0 \end{gathered}$ | 1078 | 12.173 | 1.009 | 0.841 | $\begin{gathered} 0.230 \\ 0 \end{gathered}$ | 1395 |
| Expenditures on rent and/or housing repairs | 11.536 | 4.503** | 2.030 | $\begin{gathered} 0.029 \\ () \end{gathered}$ | 1697 | 11.536 | 2.379 | 2.516 | $\begin{gathered} 0.347 \\ 0 \end{gathered}$ | 1145 | 13.600 | 2.569 | 1.706 | $\begin{gathered} 0.132 \\ 0 \end{gathered}$ | 1496 |
| Expenditures on other services | 21.677 | 4.980** | 2.087 | $\begin{gathered} 0.019 \\ () \\ \hline \end{gathered}$ | 1452 | 21.677 | 2.758 | 2.658 | $\begin{gathered} 0.303 \\ 0 \\ \hline \end{gathered}$ | 1002 | 24.708 | 2.419 | 1.525 | $\begin{gathered} 0.113 \\ 0 \\ \hline \end{gathered}$ | 1244 |

Notes: This table presents regression results for consumption outcomes (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A14: Estimated treatment effects: consumption (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Value of meat and fish consumed | 22.091 | 2.576 | 1.749 | $\begin{gathered} 0.145 \\ (0.356) \end{gathered}$ | 1672 | 22.091 | 3.228 | 1.969 | $\begin{gathered} 0.105 \\ (0.241) \end{gathered}$ | 1069 | 25.015 | -0.624 |  | $\begin{gathered} 0.564 \\ (0.858) \end{gathered}$ | 1439 |
| Value of fruit consumed | 2.846 | 0.772 | 0.617 | $\begin{gathered} 0.215 \\ (0.356) \end{gathered}$ | 1740 | 2.846 | 1.513* | 0.781 | $\begin{gathered} 0.056 \\ (0.241) \end{gathered}$ | 1120 | 4.329 | -0.721 | 0.451 | $\begin{gathered} 0.110 \\ (0.858) \end{gathered}$ | 1486 |
| Value of milk products consumed | 8.679 | 0.907 | 0.896 | $\begin{gathered} 0.315 \\ (0.420) \end{gathered}$ | 1695 | 8.679 | 1.345 | 1.005 | $\begin{gathered} 0.185 \\ (0.296) \end{gathered}$ | 1083 | 9.868 | -0.387 | 0.635 | $\begin{gathered} 0.542 \\ (0.858) \end{gathered}$ | 1464 |
| Value of oil consumed | 2.200 | 0.944 | 0.661 | $\begin{gathered} 0.158 \\ (0.356) \end{gathered}$ | 1741 | 2.200 | 1.588* | 0.808 | $\begin{gathered} 0.053 \\ (0.241) \end{gathered}$ | 1121 | 3.688 | -0.540 | 0.450 | $\begin{gathered} 0.230 \\ (0.858) \end{gathered}$ | 1484 |
| Value of beverages consumed | 2.200 | 0.517 | 0.631 | $\begin{gathered} 0.415 \\ (0.512) \end{gathered}$ | 1740 | 2.200 | 0.665 | 0.680 | $\begin{gathered} 0.331 \\ (0.442) \end{gathered}$ | 1126 | 2.760 | -0.164 | 0.414 | $\begin{gathered} 0.693 \\ (0.858) \end{gathered}$ | 1486 |
| Value of cigarette consumed | 0.865 | 1.161 | 0.787 | $\begin{gathered} 0.144 \\ (0.356) \end{gathered}$ | 1747 | 0.865 | 1.707* | 0.960 | $\begin{gathered} 0.079 \\ (0.241) \end{gathered}$ | 1130 | 2.468 | -0.535 | 0.519 | $\begin{gathered} 0.303 \\ (0.858) \end{gathered}$ | 1491 |
| Value of other consumption | 24.371 | 6.707** | 3.053 | $\begin{gathered} 0.031 \\ (0.248) \end{gathered}$ | 1665 | 24.371 | 4.593 | 2.975 | $\begin{gathered} 0.127 \\ (0.254) \end{gathered}$ | 1068 | 28.902 | 1.973 | 1.877 | $\begin{gathered} 0.293 \\ (0.858) \end{gathered}$ | 1435 |
| Expenditures on healthcare (medical expenses) | 71.831 | 7.965 | 6.472 | $\begin{gathered} 0.222 \\ (0.356) \end{gathered}$ | 1740 | 71.831 | 9.792 | 7.275 | $\begin{gathered} 0.182 \\ (0.296) \end{gathered}$ | 1124 | 82.289 | -2.042 | 5.455 | $\begin{gathered} 0.708 \\ (0.858) \end{gathered}$ | 1486 |
| Expenditures on education | 38.628 | 3.542 | 3.246 | $\begin{gathered} 0.279 \\ (0.406) \end{gathered}$ | 1741 | 38.628 | 1.621 | 3.375 | $\begin{gathered} 0.632 \\ (0.633) \end{gathered}$ | 1122 | 40.600 | 2.200 | 3.203 | $\begin{gathered} 0.492 \\ (0.858) \end{gathered}$ | 1487 |
| Expenditures on leisure | 3.778 | 2.331 | 1.789 | $\begin{gathered} 0.197 \\ (0.356) \end{gathered}$ | 1748 | 3.778 | 3.087 | 1.874 | $\begin{gathered} 0.103 \\ (0.241) \end{gathered}$ | 1131 | 6.532 | $-0.837$ | 0.871 | $\begin{gathered} 0.337 \\ (0.858) \end{gathered}$ | 1491 |
| Expenditure on transportation | 38.528 | 4.361 | 2.815 | $\begin{gathered} 0.125 \\ (0.356) \end{gathered}$ | 1744 | 38.528 | 5.354* | 3.010 | $\begin{gathered} 0.079 \\ (0.241) \end{gathered}$ | 1125 | 43.370 | -0.196 | 2.439 | $\begin{gathered} 0.936 \\ (0.936) \end{gathered}$ | 1485 |
| Expenditures on electricity, gas water, etc | 75.884 | 5.452 | 8.572 | $\begin{gathered} 0.527 \\ (0.562) \end{gathered}$ | 1746 | 75.884 | -5.381 | 8.604 | $\begin{gathered} 0.533 \\ (0.610) \end{gathered}$ | 1127 | 70.782 | 9.352** | 4.748 | $\begin{gathered} 0.049 \\ (0.786) \end{gathered}$ | 1489 |
| Expenditures on communication | 13.999 | $5.054^{* * *}$ | 1.673 | $\begin{gathered} 0.003 \\ (0.055) \end{gathered}$ | 1747 | 13.999 | 4.431** | 1.917 | $\begin{gathered} 0.023 \\ (0.241) \end{gathered}$ | 1130 | 17.809 | 0.736 | 1.113 | $\begin{gathered} 0.509 \\ (0.858) \end{gathered}$ | 1491 |
| Expenditures on household chores | 16.866 | 1.900* | 1.137 | $\begin{gathered} 0.099 \\ (0.356) \end{gathered}$ | 1742 | 16.866 | 1.651 | 1.303 | $\begin{gathered} 0.209 \\ (0.304) \end{gathered}$ | 1125 | 18.508 | 0.218 | 0.879 | $\begin{gathered} 0.804 \\ (0.858) \end{gathered}$ | 1487 |
| Expenditures on rent and/or housing repairs | 12.048 | -2.038 | 3.012 | $\begin{gathered} 0.501 \\ (0.562) \end{gathered}$ | 1294 | 12.048 | -3.490 | 3.785 | $\begin{gathered} 0.359 \\ (0.443) \end{gathered}$ | 818 | 7.547 | 1.262 | 2.770 | $\begin{gathered} 0.649 \\ (0.858) \end{gathered}$ | 1116 |
| Expenditures on other services | 0.323 | 0.012 | 0.085 | $\begin{gathered} 0.883 \\ () \\ \hline \end{gathered}$ | 1748 | 0.323 | 0.051 |  | $\begin{gathered} 0.605 \\ () \\ \hline \end{gathered}$ | 1131 | 0.324 | $-0.018$ | 0.072 | $\begin{gathered} 0.797 \\ 0 \\ \hline \end{gathered}$ | 1491 |

Notes: This table presents regression results for consumption outcomes (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A15: Estimated treatment effects: assets (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Movable assets | 0.030 | 0.026** | 0.011 | $\begin{gathered} 0.018 \\ (0.080) \end{gathered}$ | 2126 | 0.030 | 0.013 |  | $\begin{gathered} 0.299 \\ (0.385) \end{gathered}$ | 1386 | 0.041 | 0.012 | 0.010 | $\begin{gathered} 0.228 \\ (0.343) \end{gathered}$ | 1924 |
| Livestock | 2.797 | 1.004* | 0.520 | $\begin{gathered} 0.057 \\ (0.086) \end{gathered}$ | 2126 | 2.797 | 0.737 | 0.518 | $\begin{gathered} 0.159 \\ (0.239) \end{gathered}$ | 1386 | 3.417 | 0.354 | 0.239 | $\begin{gathered} 0.138 \\ (0.249) \end{gathered}$ | 1924 |
| Furniture | 5.780 | 0.593** | 0.291 | $\begin{gathered} 0.045 \\ (0.086) \end{gathered}$ | 2126 | 5.780 | 0.889*** | 0.291 | $\begin{gathered} 0.003 \\ (0.014) \end{gathered}$ | 1386 | 6.581 | $-0.272^{* *}$ | 0.137 | $\begin{gathered} 0.048 \\ (0.108) \end{gathered}$ | 1924 |
| Electronic equipment | 3.112 | $0.334^{* *}$ | 0.150 | $\begin{gathered} 0.029 \\ (0.086) \end{gathered}$ | 2126 | 3.112 | 0.371** | 0.160 | $\begin{gathered} 0.023 \\ (0.070) \end{gathered}$ | 1386 | 3.461 | -0.059 | 0.080 | $\begin{gathered} 0.458 \\ (0.589) \end{gathered}$ | 1924 |
| Cement or brick wall | 0.838 | 0.016 | 0.028 | $\begin{gathered} 0.570 \\ (0.571) \end{gathered}$ | 2123 | 0.838 | 0.022 | 0.029 | $\begin{gathered} 0.459 \\ (0.516) \end{gathered}$ | 1382 | 0.871 | -0.010 | 0.017 | $\begin{gathered} 0.559 \\ (0.630) \end{gathered}$ | 1923 |
| Home roof materials: cement or tiles | 0.913 | 0.016 | 0.019 | $\begin{gathered} 0.401 \\ (0.451) \end{gathered}$ | 2121 | 0.913 | 0.035* | 0.020 | $\begin{gathered} 0.075 \\ (0.170) \end{gathered}$ | 1382 | 0.951 | $-0.023^{* *}$ | 0.011 | $\begin{gathered} 0.045 \\ (0.108) \end{gathered}$ | 1919 |
| House ownership | 0.229 | 0.066* | 0.034 | $\begin{gathered} 0.057 \\ (0.086) \end{gathered}$ | 1986 | 0.229 | 0.059 | 0.039 | $\begin{gathered} 0.137 \\ (0.239) \end{gathered}$ | 1322 | 0.291 | 0.006 | 0.023 | $\begin{gathered} 0.783 \\ (0.783) \end{gathered}$ | 1778 |
| Land ownership | 0.122 | 0.053 | 0.038 | $\begin{gathered} 0.164 \\ (0.211) \end{gathered}$ | 2110 | 0.122 | 0.003 | 0.033 | $\begin{gathered} 0.928 \\ (0.929) \end{gathered}$ | 1380 | 0.126 | $0.054^{* * *}$ | 0.017 | $\begin{gathered} 0.002 \\ (0.018) \end{gathered}$ | 1904 |
| Three or more on the imada poverty scale | 0.055 | 0.121*** | 0.024 | $\begin{gathered} 0.000 \\ (0.001) \\ \hline \end{gathered}$ | 2126 | 0.055 | 0.076*** | 0.024 | $\begin{gathered} 0.002 \\ (0.014) \end{gathered}$ | 1386 | 0.127 | 0.040** | 0.017 | $\begin{gathered} 0.019 \\ (0.088) \\ \hline \end{gathered}$ | 1924 |

Notes: This table presents regression results for assets outcomes (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A16: Estimated treatment effects: assets (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Movable assets | 0.063 | 0.003 | 0.019 | 0.883 | 1748 | 0.063 | 0.002 | 0.018 | 0.905 | 1131 | 0.066 | -0.003 | 0.014 | 0.811 | 1491 |
|  |  |  |  | (0.884) |  |  |  |  | (0.905) |  |  |  |  | (0.912) |  |
| Livestock | 5.648 | 0.476 | 0.697 | 0.497 | 1748 | 5.648 | 1.022 | 0.788 | 0.198 | 1131 | 6.510 | -0.515 | 0.392 | 0.189 | 1491 |
|  |  |  |  | (0.746) |  |  |  |  | (0.358) |  |  |  |  | (0.426) |  |
| Furniture | 13.146 | 1.121* | 0.615 | 0.072 | 1748 | 13.146 | 1.173* | 0.640 | 0.071 | 1131 | 14.039 | -0.086 | 0.326 | 0.791 | 1491 |
|  |  |  |  | (0.217) |  |  |  |  | (0.164) |  |  |  |  | (0.912) |  |
| Electronic equipment | 4.510 | 0.447** | 0.182 | 0.016 | 1748 | 4.510 | 0.525*** | 0.195 | 0.009 | 1131 | 4.966 | -0.078 | 0.122 | 0.522 | 1491 |
|  |  |  |  | (0.075) |  |  |  |  | (0.040) |  |  |  |  | (0.784) |  |
| Cement or brick wall | 0.842 | 0.012 | 0.029 | 0.672 | 1746 | 0.842 | 0.008 | 0.031 | 0.807 | 1128 | 0.862 | 0.001 | 0.020 | 0.973 | 1490 |
|  |  |  |  | (0.865) |  |  |  |  | (0.905) |  |  |  |  | (0.973) |  |
| Home roof materials: cement or tiles | 0.921 | 0.004 | 0.020 | 0.827 | 1745 | 0.921 | 0.034* | 0.019 | 0.073 | 1128 | 0.956 | $-0.033^{* *}$ | 0.013 | 0.010 | 1487 |
|  |  |  |  | $(0.884)$ |  |  |  |  | $(0.164)$ |  |  |  |  | $(0.091)$ |  |
| House ownership | 0.355 | 0.053 | 0.042 | 0.213 | 1737 | 0.355 | 0.031 | 0.043 | 0.469 | 1119 | 0.381 | 0.024 | 0.028 | 0.394 | 1480 |
|  |  |  |  | (0.480) |  |  |  |  | (0.705) |  |  |  |  | $(0.710)$ |  |
| Land ownership | 0.056 | 0.016 | 0.021 | 0.446 | 1748 | 0.056 | -0.010 | 0.020 | 0.628 | 1131 | 0.043 | 0.027** | 0.013 | 0.034 | 1491 |
|  |  |  |  | (0.746) |  |  |  |  | (0.808) |  |  |  |  | (0.115) |  |
| Three or more on the imada poverty scale | 0.058 | $0.124^{* * *}$ | 0.027 | 0.000 | 1748 | 0.058 | 0.079*** | 0.025 | 0.002 | 1131 | 0.130 | 0.041** | 0.020 | 0.038 | 1491 |
|  |  |  |  | (0.001) |  |  |  |  | (0.021) |  |  |  |  | (0.115) |  |

Notes: This table presents regression results for assets outcomes (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A17: Estimated treatment effects: financial inclusion (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Contract debt last 12 month | 0.519 | 0.054 | 0.039 | $\begin{gathered} 0.172 \\ (0.259) \end{gathered}$ | 2114 | 0.519 | -0.017 | 0.044 | $\begin{gathered} 0.710 \\ (0.711) \end{gathered}$ | 1376 | 0.512 | 0.068*** | 0.025 | $\begin{gathered} 0.006 \\ (0.018) \end{gathered}$ | 1910 |
| Actual amount of debt | 118.045 | -5.039 | 13.047 | $\begin{gathered} 0.700 \\ (0.701) \end{gathered}$ | 2055 | 118.045 | -6.532 | 13.609 | $\begin{gathered} 0.633 \\ (0.711) \end{gathered}$ | 1342 | 111.141 | 4.658 | 9.600 | $\begin{gathered} 0.628 \\ (0.628) \end{gathered}$ | 1859 |
| Amount saved during the last 12 months | 0.069 | 0.932*** | 0.311 | $\begin{gathered} 0.004 \\ (0.012) \\ \hline \end{gathered}$ | 2120 | 0.069 | 0.456** |  | $\begin{gathered} 0.040 \\ (0.119) \\ \hline \end{gathered}$ | 1383 | 0.482 | 0.399 |  | $\begin{gathered} 0.149 \\ (0.224) \\ \hline \end{gathered}$ | 1915 |

Notes: This table presents regression results for financial inclusion outcomes (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A18: Estimated treatment effects: financial inclusion (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p -value | N | C Mean | T-C | SE | p-value | N |
| Contracted any debt | 0.380 | -0.018 | 0.029 | $\begin{gathered} 0.524 \\ (0.793) \end{gathered}$ | 1699 | 0.380 | 0.020 | 0.032 | $\begin{gathered} 0.537 \\ (0.717) \end{gathered}$ | 1098 | 0.406 | -0.038 | 0.028 | $\begin{gathered} 0.172 \\ (0.376) \end{gathered}$ | 1459 |
| Money borrowed in total (in USD)? | 527.629 | 22.691 | 86.070 | $\begin{gathered} 0.793 \\ (0.793) \end{gathered}$ | 1698 | 527.629 | -69.672 | 88.654 | $\begin{gathered} 0.434 \\ (0.717) \end{gathered}$ | 1097 | 476.435 | 87.144 | 66.087 | $\begin{gathered} 0.188 \\ (0.376) \end{gathered}$ | 1457 |
| Total amount saved | 0.000 | 0.000 | 0.000 | (.) | 1748 | 0.000 | 0.000 | 0.000 | (.) | 1131 | 0.000 | 0.000 | 0.000 | (.) | 1491 |
| Have a savings or deposit account | 0.107 | 0.009 | 0.030 | $\begin{gathered} 0.769 \\ (0.793) \end{gathered}$ | 1748 | 0.107 | 0.012 | 0.034 | $\begin{gathered} 0.723 \\ (0.724) \end{gathered}$ | 1131 | 0.108 | 0.002 | 0.018 | $\begin{gathered} 0.889 \\ (0.889) \end{gathered}$ | 1491 |
| Mat: Recently saved at a formal institution | 0.006 | -0.002 | 0.003 | $\begin{gathered} 0.600 \\ (0.793) \\ \hline \end{gathered}$ | 1748 | 0.006 | -0.004 | 0.004 | $\begin{gathered} 0.292 \\ (0.717) \\ \hline \end{gathered}$ | 1131 | 0.002 | 0.002 | 0.003 | $\begin{gathered} 0.612 \\ (0.816) \\ \hline \end{gathered}$ | 1491 |

Notes: This table presents regression results for financial inclusion outcomes (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *}$ p $<0.01$, ${ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A19: Estimated treatment effects: human capital (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Received training in a trade | 0.116 | 0.035 | 0.024 | $\begin{gathered} 0.159 \\ (0.319) \end{gathered}$ | 2124 | 0.116 | 0.003 | 0.025 | $\begin{gathered} 0.919 \\ (0.920) \end{gathered}$ | 1386 | 0.110 | 0.031** | 0.016 | $\begin{gathered} 0.049 \\ (0.099) \end{gathered}$ | 1922 |
| Has skills would like to use | 0.270 | 0.015 |  | $\begin{gathered} 0.634 \\ (0.635) \\ \hline \end{gathered}$ | 2097 | 0.270 | 0.013 |  | $\begin{array}{r} 0.766 \\ (0.920) \\ \hline \end{array}$ | 1379 | 0.288 | -0.001 |  | $\begin{gathered} 0.956 \\ (0.956) \\ \hline \end{gathered}$ | 1898 |

Notes: This table presents regression results for human capital outcomes (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01, * * \mathrm{p}<0.05$, * $\mathrm{p}<0.10$

Table A20: Estimated treatment effects: human capital (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | $p$-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | $p$-value | N |
| Received training in a trade | 0.042 | 0.007 | 0.013 | $\begin{gathered} 0.613 \\ (0.613) \end{gathered}$ | 1748 | 0.042 | -0.004 | 0.016 | $\begin{gathered} 0.825 \\ (0.826) \end{gathered}$ | 1131 | 0.039 | 0.009 | 0.011 | $\begin{gathered} 0.442 \\ (0.655) \end{gathered}$ | 1491 |
| Has skills would like to use | 0.019 | 0.018 | 0.012 | $\begin{gathered} 0.156 \\ (0.312) \end{gathered}$ | 1748 | 0.019 | 0.012 | $0.012$ | $\begin{gathered} 0.313 \\ (0.627) \end{gathered}$ | 1131 | 0.027 | 0.004 |  | $\begin{gathered} 0.655 \\ (0.655) \end{gathered}$ | 1491 |

Notes: This table presents regression results for for human capital outcomes (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*}$ p<0.10

Table A21: Estimated treatment effects: coping mechanisms (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | $p$-value | N | C Mean | T-C | SE | p-value | N |
| Reduced food consumption | 0.078 | 0.031 | 0.027 | 0.247 | 467 | 0.078 | 0.010 | 0.034 | 0.773 | 251 | 0.098 | 0.020 | 0.032 | 0.528 | 462 |
|  |  |  |  | (0.808) |  |  |  |  | (0.921) |  |  |  |  | (0.574) |  |
| Borrowed money | 0.672 | 0.019 | 0.051 | 0.717 | 467 | 0.672 | -0.027 | 0.060 | 0.655 | 251 | 0.642 | 0.058 | 0.050 | 0.251 | 462 |
|  |  |  |  | (0.808) |  |  |  |  | (0.921) |  |  |  |  | (0.574) |  |
| Received assistance | 0.141 | 0.010 | 0.042 | 0.808 | 467 | 0.141 | -0.005 | 0.046 | 0.921 | 251 | 0.122 | 0.020 | 0.035 | 0.573 | 462 |
|  |  |  |  | (0.808) |  |  |  |  | (0.921) |  |  |  |  | (0.574) |  |
| Sell assets or livestock/Use Savings | 0.148 | -0.023 | 0.047 | 0.629 | 467 | 0.148 | 0.012 | 0.053 | 0.823 | 251 | 0.154 | -0.033 | 0.037 | 0.373 | 462 |
|  |  |  |  | (0.808) |  |  |  |  | (0.921) |  |  |  |  | (0.574) |  |

Notes: This table presents regression results for coping mechanisms outcomes (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A22: Estimated treatment effects: coping mechanisms (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p -value | N | C Mean | T-C | SE | p -value | N |
| Reduced food consumption | 0.299 | 0.094 | 0.064 | $\begin{gathered} 0.143 \\ (0.571) \end{gathered}$ | 438 | 0.299 | 0.047 | 0.077 | $\begin{gathered} 0.545 \\ (0.984) \end{gathered}$ | 253 | 0.340 | 0.051 | 0.054 | $\begin{gathered} 0.345 \\ (0.557) \end{gathered}$ | 397 |
| Borrowed money | 0.401 | 0.023 | 0.064 | $\begin{gathered} 0.716 \\ (0.716) \end{gathered}$ | 438 | 0.401 | 0.024 | 0.075 | $\begin{gathered} 0.745 \\ (0.984) \end{gathered}$ | 253 | 0.425 | 0.002 | 0.056 | $\begin{gathered} 0.978 \\ (0.979) \end{gathered}$ | 397 |
| Received assistance | 0.122 | 0.030 | 0.031 | $\begin{gathered} 0.336 \\ (0.673) \end{gathered}$ | 438 | 0.122 | 0.001 | 0.040 | $\begin{gathered} 0.984 \\ (0.984) \end{gathered}$ | 253 | 0.123 | 0.031 | 0.038 | $\begin{gathered} 0.417 \\ (0.557) \end{gathered}$ | 397 |
| Sell assets or livestock/Use Savings | 0.122 | -0.022 | 0.039 | $\begin{gathered} 0.575 \\ (0.716) \end{gathered}$ | 438 | 0.122 | 0.021 | 0.043 | $\begin{gathered} 0.626 \\ (0.984) \\ \hline \end{gathered}$ | 253 | 0.142 | -0.041 | 0.038 | $\begin{gathered} 0.287 \\ (0.557) \end{gathered}$ | 397 |

Notes: This table presents regression results for coping mechanisms outcomes (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A23: Estimated treatment effects: social cohesion (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | $p$-value | N | C Mean | T-C | SE | p-value | N |
| Community participation and cohesion | 0.008 | 0.008 | 0.005 | $\begin{gathered} 0.138 \\ (0.208) \end{gathered}$ | 2126 | 0.008 | -0.003 | 0.004 | $\begin{gathered} 0.358 \\ (0.766) \end{gathered}$ | 1386 | 0.003 | 0.008** | 0.004 | $\begin{gathered} 0.034 \\ (0.101) \end{gathered}$ | 1924 |
| Collective action | 0.035 | 0.017 | 0.017 | $\begin{gathered} 0.314 \\ (0.314) \end{gathered}$ | 2126 | 0.035 | 0.012 | 0.018 | $\begin{gathered} 0.510 \\ (0.766) \end{gathered}$ | 1386 | 0.042 | 0.007 | 0.011 | $\begin{gathered} 0.531 \\ (0.531) \end{gathered}$ | 1924 |
| Violent conflict | 0.021 | 0.015 | 0.009 | $\begin{gathered} 0.100 \\ (0.208) \\ \hline \end{gathered}$ | 2126 | 0.021 | 0.002 |  | $\begin{gathered} 0.846 \\ (0.846) \\ \hline \end{gathered}$ | 1386 | 0.025 | 0.013 | $0.009$ | $\begin{gathered} 0.167 \\ (0.250) \\ \hline \end{gathered}$ | 1924 |

Notes: This table presents regression results for social cohesion outcomes (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A24: Estimated treatment effects: social cohesion (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p -value | N | C Mean | T-C | SE | p -value | N |
| Community participation and cohesion | 0.020 | 0.005 | 0.015 | $\begin{gathered} 0.749 \\ (0.905) \end{gathered}$ | 1748 | 0.020 | -0.002 | 0.012 | $\begin{gathered} 0.874 \\ (0.980) \end{gathered}$ | 1131 | 0.011 | 0.007 | 0.006 | $\begin{gathered} 0.275 \\ (0.825) \end{gathered}$ | 1491 |
| Collective action | 0.124 | 0.009 | 0.072 | $\begin{gathered} 0.905 \\ (0.905) \end{gathered}$ | 1748 | 0.124 | 0.002 | 0.071 | $\begin{gathered} 0.979 \\ (0.980) \end{gathered}$ | 1131 | 0.092 | 0.005 | 0.032 | $\begin{gathered} 0.873 \\ (0.944) \end{gathered}$ | 1491 |
| Violent conflict | 0.061 | -0.015 |  | $\begin{gathered} 0.302 \\ (0.905) \\ \hline \end{gathered}$ | 1748 | 0.061 | -0.018 |  | $\begin{gathered} 0.261 \\ (0.784) \\ \hline \end{gathered}$ | 1131 | 0.048 | $-0.001$ |  | $\begin{gathered} 0.944 \\ (0.944) \end{gathered}$ | 1491 |

Notes: This table presents regression results for for social cohesion outcomes (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A25: Estimated treatment effects: civic engagement (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Civic engagement | 0.242 | 0.087* | 0.047 | $\begin{gathered} 0.066 \\ (0.100) \end{gathered}$ | 2126 | 0.242 | 0.075 | 0.052 | $\begin{gathered} 0.153 \\ (0.168) \end{gathered}$ | 1386 | 0.309 | 0.012 | 0.023 | $\begin{gathered} 0.588 \\ (0.627) \end{gathered}$ | 1924 |
| Political knowledge and attitudes | 1.514 | 0.076 | 0.065 | $\begin{gathered} 0.247 \\ (0.247) \end{gathered}$ | 2126 | 1.514 | 0.099 | 0.071 | $\begin{gathered} 0.168 \\ (0.168) \end{gathered}$ | 1386 | 1.590 | -0.017 | 0.035 | $\begin{gathered} 0.626 \\ (0.627) \end{gathered}$ | 1924 |
| Political Inclusion | 1.171 | 0.148*** | 0.054 | $\begin{gathered} 0.007 \\ (0.023) \\ \hline \end{gathered}$ | 2126 | 1.171 | 0.188*** | 0.058 | $\begin{gathered} 0.002 \\ (0.005) \end{gathered}$ | 1386 | 1.356 | -0.043 | 0.031 | $\begin{gathered} 0.165 \\ (0.495) \\ \hline \end{gathered}$ | 1924 |

Notes: This table presents regression results for civic engagement outcomes (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A26: Estimated treatment effects: civic engagement (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p -value | N | C Mean | T-C | SE | p -value | N | C Mean | T-C | SE | p-value | N |
| Civic engagment | 0.297 | 0.012 | 0.042 | $\begin{gathered} 0.768 \\ (0.768) \end{gathered}$ | 1748 | 0.297 | -0.015 | 0.046 | $\begin{gathered} 0.750 \\ (0.750) \end{gathered}$ | 1131 | 0.279 | 0.021 | 0.026 | $\begin{gathered} 0.422 \\ (0.423) \end{gathered}$ | 1491 |
| Political knowledge and attitudes | 1.012 | 0.111 | 0.072 | $\begin{gathered} 0.128 \\ (0.384) \end{gathered}$ | 1748 | 1.012 | 0.050 | 0.078 | $\begin{gathered} 0.522 \\ (0.750) \end{gathered}$ | 1131 | 1.064 | 0.056 | 0.042 | $\begin{gathered} 0.181 \\ (0.423) \end{gathered}$ | 1491 |
| Political inclusion | 1.176 | 0.037 | 0.061 | $\begin{gathered} 0.539 \\ (0.768) \\ \hline \end{gathered}$ | 1748 | 1.176 | 0.061 | $0.057$ | $\begin{gathered} 0.282 \\ (0.750) \\ \hline \end{gathered}$ | 1131 | 1.222 | -0.029 | 0.032 | $\begin{gathered} 0.372 \\ (0.423) \\ \hline \end{gathered}$ | 1491 |

Notes: This table presents regression results for for civic engagement outcomes (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A27: Estimated treatment effects: psychological well-being (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | $p$-value | N | C Mean | T-C | SE | $p$-value | N | C Mean | T-C | SE | p-value | N |
| Fear of losing control (inverted) | 0.548 | 0.098** | 0.041 | $\begin{gathered} 0.019 \\ (0.057) \end{gathered}$ | 2103 | 0.548 | 0.061 | 0.051 | $\begin{gathered} 0.236 \\ (0.304) \end{gathered}$ | 1375 | 0.475 | 0.040 | 0.025 | $\begin{gathered} 0.108 \\ (0.190) \end{gathered}$ | 1898 |
| Fear of being exploited (inverted) | 0.515 | 0.036 | 0.042 | $\begin{gathered} 0.394 \\ (0.591) \end{gathered}$ | 2110 | 0.515 | 0.053 | 0.052 | $\begin{gathered} 0.306 \\ (0.307) \end{gathered}$ | 1375 | 0.456 | -0.020 | 0.025 | $\begin{gathered} 0.417 \\ (0.506) \end{gathered}$ | 1907 |
| Useless for others (inverted) | 0.852 | 0.083*** | 0.028 | $\begin{gathered} 0.004 \\ (0.019) \end{gathered}$ | 2107 | 0.852 | 0.066** | 0.033 | $\begin{gathered} 0.049 \\ (0.148) \end{gathered}$ | 1380 | 0.776 | 0.016 | 0.021 | $\begin{gathered} 0.450 \\ (0.506) \end{gathered}$ | 1903 |
| Good relation between HH member | 0.554 | 0.072 | 0.054 | $\begin{gathered} 0.190 \\ (0.343) \end{gathered}$ | 2120 | 0.554 | 0.082 | 0.057 | $\begin{gathered} 0.151 \\ (0.273) \end{gathered}$ | 1383 | 0.641 | -0.009 | 0.024 | $\begin{gathered} 0.700 \\ (0.701) \end{gathered}$ | 1917 |
| Number of people telling important decisions | 1.096 | 0.429*** | 0.109 | $\begin{gathered} 0.000 \\ (0.002) \end{gathered}$ | 2045 | 1.096 | 0.206* | 0.115 | $\begin{gathered} 0.078 \\ (0.176) \end{gathered}$ | 1324 | 1.277 | $0.235^{* * *}$ | 0.076 | $\begin{gathered} 0.002 \\ (0.018) \end{gathered}$ | 1891 |
| Accepted by family | 0.952 | -0.006 | 0.015 | $\begin{gathered} 0.681 \\ (0.766) \end{gathered}$ | 2109 | 0.952 | 0.014 | 0.014 | $\begin{gathered} 0.300 \\ (0.307) \end{gathered}$ | 1376 | 0.964 | -0.015 | 0.010 | $\begin{gathered} 0.118 \\ (0.190) \end{gathered}$ | 1915 |
| Accepted by other HH | 0.967 | -0.000 | 0.009 | $\begin{gathered} 0.984 \\ (0.985) \end{gathered}$ | 2098 | 0.967 | 0.013 | 0.010 | $\begin{gathered} 0.201 \\ (0.302) \end{gathered}$ | 1370 | 0.979 | $-0.014^{*}$ | 0.008 | $\begin{gathered} 0.062 \\ (0.187) \end{gathered}$ | 1896 |
| Feel in control of things | 0.694 | 0.013 | 0.031 | $\begin{gathered} 0.670 \\ (0.766) \end{gathered}$ | 2096 | 0.694 | 0.071** | 0.033 | $\begin{gathered} 0.037 \\ (0.148) \end{gathered}$ | 1376 | 0.752 | -0.055** | 0.022 | $\begin{gathered} 0.012 \\ (0.054) \end{gathered}$ | 1898 |
| Can accomplish goals | 0.809 | 0.040 | 0.026 | $\begin{gathered} 0.123 \\ (0.278) \end{gathered}$ | 2108 | 0.809 | $0.073 * * *$ | 0.024 | $\begin{gathered} 0.003 \\ (0.025) \end{gathered}$ | 1377 | 0.869 | -0.026 | 0.017 | $\begin{gathered} 0.126 \\ (0.190) \end{gathered}$ | 1903 |

Notes: This table presents regression results for psychological well-being outcomes (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A28: Estimated treatment effects: psychological well-being (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Fear of losing control (inverted) | 0.320 | 0.006 | 0.044 | $\begin{gathered} 0.889 \\ (0.963) \end{gathered}$ | 1748 | 0.320 | 0.043 | 0.046 | $\begin{gathered} 0.351 \\ (0.985) \end{gathered}$ | 1131 | 0.279 | -0.038 | 0.026 | $\begin{gathered} 0.144 \\ (0.896) \end{gathered}$ | 1491 |
| Feels depressed (inverted) | 0.411 | -0.004 | 0.044 | $\begin{gathered} 0.935 \\ (0.963) \end{gathered}$ | 1709 | 0.411 | 0.004 | 0.046 | $\begin{gathered} 0.930 \\ (0.985) \end{gathered}$ | 1110 | 0.401 | -0.008 | 0.028 | $\begin{gathered} 0.772 \\ (0.972) \end{gathered}$ | 1457 |
| Loss of interest for activity (inverted) | 0.409 | 0.022 | 0.040 | $\begin{gathered} 0.588 \\ (0.963) \end{gathered}$ | 1724 | 0.409 | 0.028 | 0.045 | $\begin{gathered} 0.535 \\ (0.985) \end{gathered}$ | 1117 | 0.374 | -0.008 | 0.028 | $\begin{gathered} 0.776 \\ (0.972) \end{gathered}$ | 1467 |
| Problems being accepted in the household (inverted) | 0.182 | 0.021 | 0.036 | $\begin{gathered} 0.560 \\ (0.963) \end{gathered}$ | 1691 | 0.182 | 0.031 | 0.038 | $\begin{gathered} 0.415 \\ (0.985) \end{gathered}$ | 1092 | 0.148 | -0.012 | 0.021 | $\begin{gathered} 0.562 \\ (0.972) \end{gathered}$ | 1439 |
| Tell important things to someone | 0.909 | 0.019 | 0.019 | $\begin{gathered} 0.333 \\ (0.963) \end{gathered}$ | 1740 | 0.909 | 0.001 | 0.021 | $\begin{gathered} 0.946 \\ (0.985) \end{gathered}$ | 1126 | 0.908 | 0.018 | 0.016 | $\begin{gathered} 0.256 \\ (0.896) \end{gathered}$ | 1486 |
| Feel that can accomplish goals | 0.583 | -0.038 | 0.057 | $\begin{gathered} 0.511 \\ (0.963) \end{gathered}$ | 1705 | 0.583 | -0.028 | 0.060 | $\begin{gathered} 0.646 \\ (0.985) \end{gathered}$ | 1103 | 0.543 | -0.003 | 0.029 | $\begin{gathered} 0.921 \\ (0.972) \end{gathered}$ | 1442 |
| Feel in control of things | 0.433 | -0.002 | 0.044 | $\begin{gathered} 0.963 \\ (0.963) \end{gathered}$ | 1689 | 0.433 | -0.001 | 0.052 | $\begin{gathered} 0.984 \\ (0.985) \end{gathered}$ | 1091 | 0.418 | 0.001 | 0.029 | $\begin{gathered} 0.971 \\ (0.972) \end{gathered}$ | 1426 |

Notes: This table presents regression results for for psychological well-being outcomes (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A29: Estimated treatment effects: women's empowerment and agency (round one)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p-value | N |
| Earn income | 0.007 | 0.001 | 0.005 | $\begin{gathered} 0.871 \\ (0.872) \end{gathered}$ | 1161 | 0.007 | 0.008 | 0.009 | $\begin{gathered} 0.400 \\ (0.625) \end{gathered}$ | 722 | 0.014 | -0.006 | 0.008 | $\begin{gathered} 0.465 \\ (0.465) \end{gathered}$ | 1013 |
| Decide by self how own's income is used | 0.667 | 0.444 | 0.287 | $\begin{gathered} 0.160 \\ (0.320) \end{gathered}$ | 9 | 0.667 | -0.235 | 0.300 | $\begin{gathered} 0.468 \\ (0.625) \end{gathered}$ | 7 | 0.500 | 0.600* | 0.265 | $\begin{gathered} 0.058 \\ (0.117) \end{gathered}$ | 10 |
| Husband decide by itself how spouse income is used | 0.545 | -0.044 | 0.056 | $\begin{gathered} 0.436 \\ (0.582) \end{gathered}$ | 796 | 0.545 | 0.003 | 0.058 | $\begin{gathered} 0.964 \\ (0.965) \end{gathered}$ | 487 | 0.570 | -0.043 | 0.039 | $\begin{gathered} 0.270 \\ (0.360) \end{gathered}$ | 751 |
| Women IGA | 0.015 | $0.053^{* * *}$ | 0.015 | $\begin{gathered} 0.001 \\ (0.003) \end{gathered}$ | 806 | 0.015 | 0.014 |  | $\begin{gathered} 0.293 \\ (0.625) \\ \hline \end{gathered}$ | 484 | 0.028 | 0.039** | 0.016 | $\begin{gathered} 0.011 \\ (0.045) \end{gathered}$ | 754 |

Notes: This table presents regression results for Woman Bargaining outcomes (round one). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

Table A30: Estimated treatment effects: women's empowerment and agency (round two)

|  | Between |  |  |  |  | Spillovers |  |  |  |  | Within |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C Mean | T-C | SE | p -value | N | C Mean | T-C | SE | p-value | N | C Mean | T-C | SE | p -value | N |
| Woman reports any earned income (past 6 months) | 0.087 | -0.012 | 0.019 | $\begin{gathered} 0.539 \\ (0.720) \end{gathered}$ | 1074 | 0.087 | 0.002 | 0.023 | $\begin{gathered} 0.945 \\ (0.946) \end{gathered}$ | 655 | 0.079 | -0.008 | 0.019 | $\begin{gathered} 0.672 \\ (0.709) \end{gathered}$ | 951 |
| Woman decides how income will be used | 0.154 | -0.035 | 0.025 | $\begin{gathered} 0.169 \\ (0.656) \end{gathered}$ | 1074 | 0.154 | $-0.058^{* *}$ | 0.026 | $\begin{gathered} 0.026 \\ (0.105) \end{gathered}$ | 655 | 0.090 | 0.022 | 0.021 | $\begin{gathered} 0.311 \\ (0.623) \end{gathered}$ | 951 |
| Man decides alone how income will be used (inverted) | 0.668 | 0.012 | 0.050 | $\begin{gathered} 0.814 \\ (0.815) \end{gathered}$ | 1074 | 0.668 | 0.063 | 0.050 | $\begin{gathered} 0.209 \\ (0.419) \end{gathered}$ | 655 | 0.733 | $-0.056 *$ | 0.032 | $\begin{gathered} 0.084 \\ (0.337) \end{gathered}$ | 951 |
| Women reports income generating activity | 0.100 | -0.021 |  | $\begin{gathered} 0.328 \\ (0.656) \end{gathered}$ | 1074 | 0.100 | -0.008 |  | $\begin{gathered} 0.769 \\ (0.946) \end{gathered}$ | 655 | 0.083 | -0.007 |  | $\begin{gathered} 0.708 \\ (0.709) \end{gathered}$ | 951 |

Notes: This table presents regression results for women's empowerment and agency outcomes (round two). The table presents the primary treatment effects for the outcomes of interest, for the between-village comparison of eligible treated individuals vis-a-vis control village individuals; the spillover comparison of eligible untreated individuals vis-a-vis control arm individuals; and the within-village comparison of eligible treated and untreated individuals. All the specifications use strata fixed effects and standard errors clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

## ALL IFPRI DISCUSSION PAPERS

All discussion papers are available here
They can be downloaded free of charge

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
www.ifpri.org

## IFPRI HEADQUARTERS

1201 Eye Street, NW
Washington, DC 20005 USA
Tel.: +1-202-862-5600
Fax: +1-202-862-5606
Email: ifpri@cgiar.org


[^0]:    ${ }^{1}$ Note that consumption in the control arm was measured around one year following the implementation of the intervention itself.
    ${ }^{2}$ Minimum wage data for 2015 is retrieved from https://tradingeconomics.com/tunisia/minimumwages and converted to purchasing power-adjusted US dollars using exchange rates reported by the World Bank.
    ${ }^{3}$ The timing of the identification of eligibility did, however, differ across treatment and control communities; the implications of this difference will be discussed further below in the empirical design.

[^1]:    ${ }^{4}$ Households who were engaged in agricultural production were identified as participating in an economic activity and thus were not eligible for the intervention.
    ${ }^{5}$ Figure A1 in the Appendix shows the timeline for the launch and conclusion of each project.
    ${ }^{6}$ The Jendouba governorate comprises 95 imadas in total, 15 of which are classified as urban. These urban imadas were excluded from the evaluation, leading to a sample of 80 rural imadas.
    ${ }^{7}$ Jendouba's rural villages range in size from 1,000 to 7,000 residents. We classified villages with fewer than 2,090 residents as less populated; between 2,095 and 4,156 residents as moderately populated; and more than 4,156 residents as more populated.

[^2]:    ${ }^{8}$ The randomization of individuals into an offer of employment was conducted in two phases; following the first round of employment offers and the response, in which around $20 \%$ of individuals declined to participate, additional replacements were randomly selected and offered employment in order to meet the target participant numbers. Again, all individual who received an offer are coded as treated.
    ${ }^{9}$ In addition, data was collected from a separate random sample of individuals in both treatment and control communities. This data is not employed in this analysis.
    ${ }^{10}$ Data collection was contracted to a local professional team, under close supervision by the research team. The research team also developed all survey instruments and other research protocols as well as the training of field staff (i.e., data enumerators and supervisors).

[^3]:    ${ }^{11}$ The two survey rounds were almost, but not entirely identical. The second round included some minor modifications to portions of survey questions used in the first round as well as a novel module on the COVID-19 pandemic, which did not exist at the time of the first endline survey round.
    ${ }^{12}$ The pre-analysis plan was originally registered with EGAP and can be found on-line, https:/ /osf.io/nd53a, EGAP registration ID 20170520AA.

[^4]:    ${ }^{13} \mathrm{We}$ also report the mean probability that the locality was included in a previous round of public works programming; this probability is between $35 \%$ and $48 \%$. The difference is 12 percentage points, but this gap is not statistically significant.
    ${ }^{14}$ Given the absence of a baseline survey, no other data on pre-treatment covariates is available. Marital status is not strictly time-invariant, but given low rates of divorce in rural Tunisia, it is unlikely to show meaningful shifts over time for a predominantly middle-aged population.

[^5]:    ${ }^{15}$ The first follow-up survey spanned a period of nine months. We simply divide this period into two

[^6]:    ${ }^{16} \mathrm{~A}$ small number of observations reporting positive savings are winsorized.

[^7]:    ${ }^{17}$ The specified dimensions were gender, pre-existing levels of wealth/affluence, geographic isolation, project type, and community-level shocks. There is insufficient variation in project type and geographic isolation to pursue this analysis.
    $1899 \%$ of those who were identified as eligible in control communities were sampled, a rate that may substantially reflect the fact that the list of eligible individuals in control communities was generated only shortly prior to the follow-up survey.

[^8]:    ${ }^{19}$ The only available information for those eligible respondents who were not included in the first survey round is the village and the sex of the respondent. Covariates that may explain attrition are used to split the sample into cells. Bounds are calculated separately for each randomization strata. The results are also robust to the inclusion of a binary variable for gender to tighten the bounds.

[^9]:    ${ }^{20}$ These results are robust when including a female indicator to tighten the bounds.

[^10]:    Notes: In Panel A, each row reports the mean of the stated variable as measured in the 2014 census in villages in the control and treatment arms and the difference, and the p-value from a regression in which the covariate is regressed on a
    binary treatment variable. In Panel B, each row reports the mean of a time-invariant household covariate measured in the first follow-up survey for households in the specified arm; the p-values reported correspond to pairwise tests .
    comparing across the three subsamples of interest (treated individuals in treated villages, untreated individuals in treated villages, and untreated individuals in control communities). All specifications use strata fixed effects and standard
    errors are clustered at the village level. $* * p<0.01, * * p<0.05, * p<0.10$
    errors are clustered at the village level. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.10$

