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TRAINING OR TECHNICAL ASSISTANCE? A FIELD  
EXPERIMENT TO LEARN WHAT WORKS TO INCREASE  
MANAGERIAL CAPITAL FOR FEMALE MICROENTREPRENEURS

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# ENTRENAMIENTO O ASISTENCIA TÉCNICA? UN EXPERIMENTO PARA APRENDER QUÉ FUNCIONA PARA AUMENTAR EL CAPITAL ADMINISTRATIVO DE LAS MUJERES MICROEMPRESARIOS

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## RESUMEN

Este estudio evalúa los impactos de un programa de entrenamiento de negocios para mujeres microempresarios en Lima que anteriormente se habían beneficiado con la titularización de sus parcelas urbanas. La intervención incluyó desarrollo personal, administración de negocios y habilidades productivas, con el objeto de empoderar a las mujeres tal que pudieran aumentar el control de sus vidas, acceso a crédito, prácticas de mujeres; y consecuentemente, aumentar el ingreso y bienestar de sus familias. 1983 mujeres elegibles fueron aleatoriamente distribuidas entre grupos de tratamiento (2) y control. A las mujeres en los dos grupos de tratamiento (1416) se les ofreció entrenamiento en 36 sesiones de tres horas en un período de aproximadamente 12 semanas (entrenamiento regular). Adicionalmente, a la mitad de ellas se les ofreció apoyo individual en forma de asistencia técnica (TA) en un período de tres meses adicionales. Una encuesta de base fue aplicada antes de la selección aleatoria, y se llevó a cabo una encuesta de seguimiento cuatro meses después del tratamiento (alrededor de 12 meses después del comienzo del tratamiento). Encontramos que las mujeres asignadas a tratamiento efectivamente hicieron ajustes importantes a sus prácticas de negocios de acuerdo al entrenamiento, a pesar de diferir de acuerdo al entrenamiento recibido. Aquellas que recibieron solo el entrenamiento regular tenían mayor probabilidad de cerrar negocios con pérdidas. Además, aquellas que también recibieron TA tenían mayor probabilidad de planificar y ejecutar innovaciones, y de aumentar sus asociaciones con compañeros de negocios y el uso de fuentes informales de crédito. Más aún, aquellas innovaciones llevaron a un incremento en ventas de al menos 18%. Estos resultados tienen implicaciones de política claras: transmitir prácticas generales de negocios puede ser menos costoso y tener mayor ámbito, pero es necesario incluir asesoría específica para ayudar el crecimiento de las microempresarias. Los efectos de los ingresos y prácticas de negocios se acumulan entre los que tienen las empresas de mayor tamaño relativo, lo que sugiere la existencia de un umbral por encima del cual este tipo de formación empresarial puede ayudar. La falta de fuertes efectos sobre la participación de las mujeres en las decisiones clave y las actitudes hacia las relaciones de género sugiere la necesidad de fortalecer el módulo de desarrollo personal, pero este ajuste debe tener en cuenta que el tiempo es un recurso escaso para los microempresarios, ya que necesitan compartir sus tiempo entre sus negocios y sus responsabilidades tradicionales en las tareas domésticas

Palabras clave: emprendimiento, entrenamiento en negocios, capacidades administrativas, educación adulta

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ABSTRACT

This study evaluates the impacts of a business training program serving female microentrepreneurs in Lima that have previously benefited with the titling of their urban parcels. The intervention included personal development, business management and productive skills, aiming at empowering women so that they improve the control of their lives, their access to credit, their business practices, which in turn would increase the income and welfare of their families. 1983 eligible women were randomly allocated to treatment (2) and control groups. Women in the two treatment groups (1416) were offered business training in 36 three-hour sessions over approximately 12 weeks (regular training). In addition, half of them were offered an individualized support in the form of technical assistance (TA) over a period of three extra months. A baseline survey was applied before randomization and a follow-up survey about four months after the end of the treatment (about 12 months since the beginning of treatment). We find that women assigned to treatment indeed made some important adjustments in their business practices according to the training, although they differ depending on the type of treatment received. Those that received only regular training were more prone to close losing businesses. In turn, those that also received TA, were more prone to plan and execute innovations, as well as to increase their association with business peers and its use of informal credit sources. Furthermore, such innovations led to an increase in sales of at least 18%. These results have a clear policy implication: transmitting general good business practices may be cheaper and more scalable, but we need to include specific advice to help female microentrepreneurs grow. Both, business income and practices effects accrue among those with relatively larger businesses, suggesting the existence of a threshold above which this kind of business training can help. Lack of strong effects on the participation of women in key decisions and attitudes towards gender relations suggest the need to strengthen the personal development module, but such adjustment needs to take into account that time is a scarce resource for female microentrepreneurs as they need to share their time between their businesses and their traditional responsibilities with household chores.

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Keywords: entrepreneurship, business training, business skills, adult education

**TRAINING OR TECHNICAL ASSISTANCE? A FIELD EXPERIMENT TO LEARN  
WHAT WORKS TO INCREASE MANAGERIAL CAPITAL FOR FEMALE  
MICROENTREPRENEURS<sup>1</sup>**

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# BUSINESS TRAINING FOR ENTITLED FEMALE MICROENTREPRENEURS: AN EXPERIMENTAL IMPACT EVALUATION

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## Abstract

This study evaluates the impacts of a business training program serving female microentrepreneurs in Lima that have previously benefited with the titling of their urban parcels. The intervention included personal development, business management and productive skills, aiming at empowering women so that they improve the control of their lives, their access to credit, their business practices, which in turn would increase the income and welfare of their families. 1983 eligible women were randomly allocated to treatment (2) and control groups. Women in the two treatment groups (1416) were offered business training in 36 three-hour sessions over approximately 12 weeks (regular training). In addition, half of them were offered an individualized support in the form of technical assistance (TA) over a period of three extra months. A baseline survey was applied before randomization and a follow-up survey about four months after the end of the treatment (about 12 months since the beginning of treatment). We find that women assigned to treatment indeed made some important adjustments in their business practices according to the training, although they differ depending on the type of treatment received. Those that received only regular training were more prone to close losing businesses. In turn, those that also received TA, were more prone to plan and execute innovations, as well as to increase their association with business peers and its use of informal credit sources. Furthermore, such innovations led to an increase in sales of at least 18%. These results have a clear policy implication: transmitting general good business practices may be cheaper and more scalable, but we need to include specific advice to help female microentrepreneurs grow. Both, business income and practices effects accrue among those with relatively larger businesses, suggesting the existence of a threshold above which this kind of business training can help. Lack of strong effects on the participation of women in key decisions and attitudes towards gender relations suggest the need to strengthen the personal development module, but such adjustment needs to take into account that time is a scarce resource for female microentrepreneurs as they need to share their time between their businesses and their traditional responsibilities with household chores.

Keywords: entrepreneurship, business training, business skills, adult education

JEL Codes: C93, D13, D14, D21, I21, J24, O12

## **1) Introduction**

Land property rights have been widely advocated as a key intervention to help reduce poverty through an improved access to credit that can help finance business innovations and growth (de Soto, 2000). However, impact evaluation studies of these programs around the world have found ambiguous or modest effects on credit, labor markets and income (Galiani and Schargrotsky, 2010). The Peruvian urban land titling program, applied in the late nineties, have shown important labor supply effects in favor of work outside home (Field, 2007), but no credit effects (Field and Torero, 2005).

In that context, academic and policy circles are trying to understand the reasons behind these modest effects of urban titling on credit and income. Some have argued that titling effects on credit are limited by risk rationing, as the high-collateral contracts offered by banks result in lower expected well-being than a safe, subsistence activity (Boucher, et. al., 2008). But others argue that some microentrepreneurs do not demand credit because they have low returns to capital, in particular, women (de Mel, McKenzie and Woodruff, 2008). In that context, business training is increasingly being considered as a key element for microentrepreneurs to escape from poverty, complementing other important interventions such as access to microcredit or land titling (Karlan and Valdivia, 2010). This is particularly valid for female-run microenterprises, as they tend to be smaller, less productive and profitable (GTZ, et. al., 2010).

Indeed, business training is being increasingly tried for poverty reduction (Dunford, 2002), but still little is known about their impacts. It can be argued that micro and small businesses can easily improve performance by adopting some basic best practices. However, transferring business skills may be complicated if entrepreneurial success is more based on innate abilities and traits. Karlan and Valdivia (2010) show important effects of business training on client retention and repayment in village banks, but only weak or ambiguous effects on business growth in urban Peru. Adult training practitioners argue that transmitting some general best practices may not be enough to help microentrepreneurs, and a more individualized support in the form of technical assistance is required.

This is a study about a business training program applied to female microentrepreneurs who were previously beneficiaries of a titling program in Metropolitan Lima. Our aim is to find out whether a business training program can complement titling to improve the access to credit by female microentrepreneurs and, thus, increase their possibilities to escape from poverty. We do so with the help of an experimental design that randomly allocated eligible female microentrepreneurs into treatment and control groups. We also approach the question about what kind of training may be needed, in particular, whether transmitting general best practices can be enough to guide our female microentrepreneurs to adjust their practices and innovate for business growth, or it is necessary to complement such training with a more personalized approach in the form of technical assistance. We find that business training can indeed lead to changes in business

practices and increased sales, but only if it includes not only the transmission of general good business practices but also technical assistance that can help microentrepreneurs plan and execute innovations, also through increased networking with their peer microentrepreneurs.

This report is organized in seven sections including this introduction. Section 2 describes the two interventions and discusses the expected effects. Section 3 explains the experimental design and its implementation, and briefly describes the statistical methods used to establish causal effects of the training on a wide variety of outcomes. Section 4 uses the baseline survey to describe the sample of the study in terms of key variables such as titling situation of their dwellings, characteristics of the women's business, access to credit, previous experience on business training, use of family time. We also explore other characteristics of the microentrepreneurs such as their attitudes towards risk, leadership abilities and disposition to work in groups, etc. Next, section 5 presents the level of compliance associated to the intention to treat, based on the women's participation in the training activities. Section 6 presents the results on key business practices and results. Section 7 closes with a discussion of results and policy implications.

## **2) The intervention and the expected effects**

We worked with a consortium formed by three organizations with vast experience on business training for adults for the development of the training materials and the



implementation of the training<sup>2</sup>. The training was organized in two components: a general training component (GT) and a technical assistance component (TA). The first component included 36 three-hour group sessions delivered three times a week. 24 groups were formed based on geographical proximity<sup>3</sup>. The content of the general training component consisted of best practices associated to successful microentrepreneurs, and was organized in three modules: personal development, business development and management and productivity improvements. The first module focused on the strengthening of women's self-esteem, social skills and tools for life planning to empower them as individuals but also as members of their families and communities. The second module focused on tools to plan new businesses, or process innovations in the current ones, as well as marketing and sales strategies, and costing. The third module provided tools to improve treatment of clients, safety and hygiene of production processes as well as productive workshops on food processing industries, tailoring and dressmaking, and cosmetology.

The second component also included the same three modules of the general training component, but the support was more specific, based on the characteristics of the women's businesses and their needs. It combined individual sessions/visits with group

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<sup>2</sup> The three organizations are the following: Centro de Servicios para la Capacitación Laboral y el Desarrollo (CAPLAB), Centro Latinoamericano de Trabajo Social (CELATS), and Instituto de Promoción del Desarrollo Solidario (INPET). CAPLAB was the coordinator, and was in charge of the business development and management module. CELATS was in charge of the personal development module while INPET run the productivity improvements module.

<sup>3</sup> The Project selected beneficiaries from 34 *zonas* of four of the largest districts in Lima: Comas e Independencia in the northern cone, and Villa El Salvador and San Juan de Miraflores in the southern cone.

sessions among similar businesses over a three-month period. In the personal development module, individual counseling was included to deal with personal issues, but also self-help groups were encouraged and supported. In addition, a short module on digital literacy was included in the group sessions. In the second module, individual and group sessions helped examine the strengths and weaknesses of the women's businesses, and discuss adjustments/innovations. Also, the formation of investment groups was encouraged and supported, so that they could coordinate certain common business activities.

The main goal of the program is to transfer entrepreneurial skills. The training aims to improve basic business practices such as keeping records of sales and withdrawals, how to treat clients, where to sell, the use of special discounts, credit sales, and the goods and services produced. Some of these improvements may require more credit for the business, and should lead to more sales, more workers, and could eventually provide incentives to join the formal sector. However, if the entrepreneurial "spirit" is more about personality than skills, teaching an individual to engage in activities similar to those used by successful microentrepreneurs may not be enough for low-educated microentrepreneurs to properly identify their businesses' weaknesses and implement fixes that can eventually lead to improved business outcomes. An extra push from an expert's specific technical advice or the support and social pressure from peers in the same association of microentrepreneurs may help female entrepreneurs act on flaws or implement innovations. Still, such effort may not be enough to guarantee sustainability of the changes or the ultimate desired

outcomes if a market for technical assistance for microbusinesses does not exist or has sizable informational asymmetries.

For the World Bank and UNIFEM, this is the pilot of an intervention aiming at economically empowering women in families previously served by the urban titling program run by COFOPRI<sup>4</sup>. Thus, most eligible women live in a titled lot. However, during the recruitment we found many lots titled not by COFOPRI but by the municipality, so we relaxed the eligibility criteria for these cases to remain eligible. Thus, we analyze whether the impacts of training take advantage of their previously improved titling status, for instance, by using their titled properties as collateral when getting credit from formal financial institutions.

We also examine the impact on key household outcomes, since the training also provided tools to empower women's position within the household not only as an income earner but also as a mother, wife or daughter. In particular, we look at household decision-making and child labor. The link to household decision-making is straightforward and one of the often-cited motivations of such training: improved business success could empower female microentrepreneurs with respect to their husbands/partners in business and family decisions by giving them more control of their finances. Since many children work in family enterprises in developing countries, child labor is an important outcome to observe. The

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<sup>4</sup> Recall that COFOPRI inserted a gender bias in their intervention by requiring the name of female partners be included in the titles. Although the law makes this unnecessary for married couples, a large proportion of our target population lives under informal unions. Thus, the inclusion of that requirement did empower further women (Field, 2003).

link to child labor is ambiguous, however, depending on the relative size of income and substitution effects. The training may lead to changes in the business which either increase or decrease the marginal product of labor, hence increase or decrease child labor through a substitution effect. If the training increases business income, then we expect increased wealth to lead to a decrease in child labor and an increase in schooling. Furthermore, an indirect effect may occur in which the training inspires the mother to value education more and thus invest more in schooling of her children.

### **3) Experimental design and estimation methods**

In this section I describe the randomized control trial implemented and the statistical methods used to establish the causal effects of the training intervention.

#### ***The randomized control trial***

We evaluate the impacts of business training using a randomized control trial in which eligible female microentrepreneurs were randomly assigned to control and treatment groups. Eligibility was defined based on women having a family business, a titled plot, and expressing interest in participating in the training program. Eligible women were recruited in four of the largest districts of Lima (Comas, Independencia, Villa El Salvador and San Juan de Miraflores) by the training institutions with help from local government officials. Recruitment strategies started using local radio and newspaper ads and brochures to be later complemented with personalized visits to the women's businesses, especially at local

markets. Eligible women signed a commitment sheet but were informed during recruitment that it was not going to be possible for the training to be delivered to all eligible women in this pilot stage, and that initial beneficiaries were going to be selected randomly, and only half of them were going to receive the complete package<sup>5</sup>.

The project started in the northern cone of Lima, districts of Comas and Independencia. However, once we noticed compliance was very low, the project decided to expand adding two districts in the southern cone: Villa El Salvador y San Juan de Miraflores. Thus, recruitment was implemented in two rounds. The first round took place in February of 2009 in the northern cone, while the second round took place in September in the southern cone. We recruited a total of 1,983 eligible women, which were randomly distributed in the three groups:

Treatment 1:	709
Treatment 2:	709
Control:	565

Women in Treatment 1 (T1) group were selected to receive only the general training component while those in the Treatment 2 (T2) group were selected to receive both components: the general training component first, followed by the technical assistance (TA) component. However, we did not disclose which beneficiary women belonged to which treatment group until about 2 weeks before the end of the first component, to avoid

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<sup>5</sup> The commitment sheet also included basic information that was used to stratify randomization.

the risk that beneficiaries in the T1 group lose a positive attitude during training, out of disappointment, and/or facilitators engage in a compensating effort in favor of the T1 group.

We applied a baseline survey to all eligible women identified during recruitment (1,983) before randomization results were announced to the consortium<sup>6</sup>. For both rounds, the process was organized over one month with a team of 14 experienced surveyors. The questionnaire included questions about socio-demographic characteristics of the eligible women and her family, economic activities by all family members, characteristics of the eligible women's businesses as well as business practices and results. We also asked the women about their business knowledge, attitudes and perceptions as well as their involvement in key business and family decisions.

Randomization was partially announced right after the end of the baseline survey. Then, the consortium proceeded to contact those women selected into treatment (1,418) and invited them to start training sessions. 696 (49%) of the invited women declined participating in the training despite having expressed interest and availability at recruitment. The 722 that started the training were organized in 24 groups for the first training component so the average group size was 27 at the start. For the delivery of the training, the first recruited group was divided in two cohorts. For the first cohort, training started in March 2009 and lasted until October for those in group T2, while for the second

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<sup>6</sup> The baseline survey was applied in February for the first round of recruitments in the northern cone, and in September for the second round in the southern cone.

cohort training went from June to December. For the second round of recruitments in the southern cone, training went from October 2009 to March 2010.

The follow up survey started about 10 months after the end of the general training component. For those in the T2 group, the accompanying continued for three more months, but this TA component could already implied helping female microentrepreneurs identify problems with their businesses and implement innovations. Small businesses may see ultimate results (sales, profits, workers) materialize this fast, but it may still occur that this time is too short for some of them. But even if that is the case, we should be able to capture changes in women's attitudes towards the businesses and her family as well as other business processes such as the inclusion of new sales lines or more use of credit, etc. Follow up surveys went from March to November of 2010. Instead of organizing a large team of surveyors for a one-month period for each round of interventions, as for the baseline survey, we worked the follow up survey with a smaller team of just 5 surveyors working continuously over 9 months. We were able to re-interview a total of 1,627 women, which implies an attrition rate of 18%, although attrition was slightly higher for the control group (21%). Data processing followed a double-entry system to minimize the incidence of typing errors.

### ***Estimation methods***

For the estimation of impacts, we use the treatment-control (T-C) differences based on the randomly allocated intention to treat (ITT). The comparison between treatment (T1) and

control groups allows the estimation of the ITT effects of traditional business training, allowing us to test whether the transmission of general best practices associated to successful microentrepreneurs is enough to generate adjustments in the businesses practices followed by our entitled beneficiaries and ultimately increase sales and profits and empower the role of women within the household and the local community. In turn, comparing the two treatment groups allows for the estimation of the marginal contribution of the technical assistance component, allowing us to test whether such more personalized approach is necessary or cost efficient to help entitled women's beneficiaries improve their businesses and escape from poverty. Formally, the preferred specification for the ITT effects will be obtained with the following regression:

$$Y_{ij1} = \alpha + \beta_1 T1_{ij} + \beta_2 T2_{ij} + \beta_3 Y_{ji0} + \delta_j + \varepsilon_{ij} \quad (1)$$

where  $Y_{ij1}$  denotes an outcome variable for a woman  $i$  in zone  $j$  at time 1 (follow up),  $T1_{ij}$  is a dummy variable that takes the value one if the eligible woman was selected to receive only the general training, and  $T2_{ij}$  is also a dummy variable that takes the value one if the eligible woman was selected to receive both components of the training.  $Y_{ij0}$  denotes the value of the outcome variable at baseline,  $\delta_j$  is the zone fixed effects and  $\varepsilon_{ij}$  is the error term. Thus,  $\beta_1$  is the effect of basic training, while  $(\beta_2 - \beta_1)$  would represent the marginal



contribution of the TA component. The error term is assumed to be uncorrelated across geographical zones but not within them<sup>7</sup>.

Certainly, the ITT effects are affected not only by the impact on those effectively treated but also by actual exposure to treatment, and we have already seen that less than half of those invited to treatment accepted to start the training, and further dropouts occurred during training. Actual exposure to treatment is not randomly distributed, though, so that the OLS estimation of treatment-on-the-treated (TOT) effects would be biased. We argue here that the estimate of interest is the ITT effect, as long as the observed level of compliance and dropouts corresponds to the reality for this kind of interventions. If so, we do not want to run a cost-benefit analysis assuming full compliance and no dropouts.

We evaluate the impact of this intervention upon a large number of indicators related to business practices, business results, gender empowerment, child labor, among others. However, testing multiple outcomes using (1) independently increases the probability of rejecting a true null hypothesis for at least one outcome above the significance level used for each test (Duflo, Glennester and Kremer, 2007). We need to adjust the estimated p-values if we want to test whether business training has an impact on the family of outcomes associated to business practices/knowledge, business results or institutional outcomes. A summary measure that captures such idea is the mean

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<sup>7</sup> The sample is distributed in 34 zones in the four districts, 2 cones of Lima.

standardized treatment effect. Following Kling, Liebman and Katz (2007), we implement that by defining a summary measure  $Y^*$  as the unweighted average of all standardized outcomes of a family. That is, we get  $Y^* = \sum_k Y_k^* / k$ , where  $Y_k^* = (Y_k - \mu_k) / \sigma_k$ .  $Y_k$  denotes the outcome variables within each family and were re-defined in some cases so that a larger value is always better for the business or household. Standardization is done using mean and variance for the control group at baseline. Thus, the mean and standard deviation of  $\beta$  in (1) for  $Y^*$  allows us to test whether treatment had an overall positive effect on the corresponding family of outcomes.

We also use the summary measure  $Y^*$  to test whether the training generates heterogeneous treatment effects for each family of outcomes along characteristics such as prior interest in training, schooling, and business size as measured by total revenues. We use the following model:

$$Y_{ij1} = \alpha + \delta X_{ij0} + \beta_1 T1_{ij} + \gamma_1 T1 \cdot X_{ij0} + \beta_2 T2_{ij} + \gamma_2 T2 \cdot X_{ij0} + \beta_3 Y_{ji0} + \delta_j + \varepsilon_{ij} \quad (2)$$

where  $X_0$  is a binary variable that denotes the characteristic of interest prior to the intervention. In this case,  $\beta_1$  is the estimator of the treatment effect for those individuals in T1 that have characteristic  $X = 0$  and  $(\beta_1 + \gamma_1)$  measures the impact for those individuals that have characteristic  $X = 1$ .

#### **4) Baseline analysis**

A total of 2400 women filled the commitment sheets during the two rounds of recruitment, 1200 in each cone. However, we were able to interview only 1983 (83%) of them at baseline, as the rest were not found or refused the interview<sup>8</sup>. In what follows of this section, we present key characteristics of the beneficiary, her business, the use of time of family members, previous experience with business training and credit transactions, among others.

##### ***Socio-demographic characteristics***

The eligible woman for this project is 43 years old, has some secondary education, is married and lives in a household with 5 members on a titled dwelling (see Table 1). Still, the heterogeneity is significant. In terms of age, the average is 43 but 29% of the beneficiaries are above fifty and 28% are younger than 34 years old. In terms of schooling, 23% of the beneficiaries have some superior education, especially technical college. Also, 37% of the beneficiaries are either single or divorced/widow, and of those in a couple we cannot distinguish whether they are legally married or under a common-law arrangement.

Another important feature is the role of the beneficiary within the household. 30% of the female beneficiaries live without a partner, and about the same proportion is the head of the household. The most common role is the partner of the household head.

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<sup>8</sup> Obviously, randomization was done upon the interviewed sample.

### ***Business activities***

Families of beneficiaries have an average of 1.2 businesses, but the woman beneficiary runs only one of them (see Table 2). 68% of the businesses run by the program's beneficiaries dedicate to commerce, and half of them sell fresh food or groceries. Moreover, within production, we include food processing which mainly refers to small restaurants.

Other important commercial activities include bazaar products, clothing and footwear, while manufacturing and services businesses are not significant in number. In terms of the size of the businesses, they are very small, selling on average 510 soles a week, which represent approximately US\$ 185. Moreover, one out of four businesses sells less than US \$ 35 a week.

### ***Time use by the beneficiary and other family members***

Family labor participation in the women's business is high. About 38% of household members report working on the business (see Table 3). If we drop the beneficiary from the analysis, 26% of the other adults still report working in the business. On the other hand 15% of the children in the family report working in the business, especially girls above 14 years old.

The information in Table 3 does not differentiate by level of involvement. Table 4 reports the results of the time use tables applied to all household members, which allows us to see the way each member uses their time over the week prior to the baseline survey.

On average, the woman beneficiary reports dedicating 75 hours of her time to productive activities, including education<sup>9</sup>. They dedicate 48 hours a week to work on her business and another 22 are dedicated to household chores. Adult males, on the other hand, work 34 hours a week on jobs outside the household and only 12 hours in a family business. Also, adult males work very little in household chores (5 hours a week). Thus, although beneficiaries contribute economically to the business, they are still affected by the traditional gender bias in the allocation of responsibilities of household chores, which results in their being the one working the most of all household members<sup>10,11</sup>.

Finally, children devote their time to their studies and household chores, although work in the family business is also present, especially among older kids. Interestingly, participation of children in household chores is not differentiated by gender when they are younger (less than 14 years old), but as they get older, household chores become gradually more a responsibility of girls. Thus, traditional gender patterns are present in the households of our sample of the eligible women, and it would be interesting to see if the training has an effect not only on business growth but also on women's empowerment within their households and their communities.

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<sup>9</sup> The complement of these activities would be leisure and rest.

<sup>10</sup> Note, however, that other male adults may combine the male partner, when present, with adult offspring, which exacerbates the difference in occupied time in favor of the female beneficiary.

<sup>11</sup> Notice that male adults only dedicate 16% of their weekly time to these activities, while other women dedicate 42% of their time.

### ***Previous experience with credit and business training***

Only one out of two of the women had a credit transaction in the 12 months prior to the baseline survey (see Table 5). Most of them got the credit for the business, while reports of consumption credit are low, and mostly in households that already had a business loan. Moreover, only 30% of the eligible women got credit from a formal source, only 18% had to provide a warranty and 10% had a mortgage. Thus, there is space to increase the use of credit by this sample of female microentrepreneurs, making use of the titles that were previously provided by COFOPRI.

On the other hand, only 16% of the eligible women had received business training before. Thus, it is not surprising that they report very high interest in training, even if we indicate a charge of US\$ 3.5 per session. However, as we see in the following section, compliance was low and dropout rate was high throughout the training.

### ***Participation in key decisions and attitudes towards women's roles***

Eligible female microentrepreneurs participate in main business and family decisions (Table 6). About 90% of our sample report participating in key business decisions such as how much to save or borrow, how much to withdraw from the business and how much to reinvest, as well as other key business strategies. A similar situation occurs when we ask about key family decisions such as fertility or large expenditures. However, in this case, two elements are important to highlight. First, 34% of the female microentrepreneurs report not having participated in the decision around the last important home expenditure,

suggesting use of big money is still male's territory. Also, 53% of the women interviewed indicate that they need to hide the money from other household members if they want to save it.

Clearly, all the numbers are smaller when we look at the cases in which the women decide alone. A disturbing feature is that we find systematic differences between treatment and control groups regarding participation in key business decisions, although they are rather small. We do not find such systematic differences when we focus on the participation of eligible female microentrepreneurs in key family decisions.

In Table 7, we report women's reactions to different statements related to the economic role of women. They would answer 1 if in full disagreement with the statement and 5 if in full agreement. For most of the questions, the average answer is around 3. That is, not all women agreed that men should help with housework or that they should never hit women. A salient answer is that most women think that problems occur at home when they work outside the home. With respect to entrepreneurial attitudes, it is interesting to see that most women regard themselves as innovators, persistent and driven, but only 35% of them indicate that they actually dislike receiving orders from someone else. For this whole set of attitudinal questions we do not find any systematic differences between treatment and control groups.

## **5) Implementation: The low compliance problem**

In the previous section, we already indicated that we lost 17% of those originally recruited as they were not found or refused to be interviewed. Thus, we randomly distribute the 1,983 women across treatment and control groups, so that 1,418 women were invited to join the program. However, only 722 (51%) accepted and started the training. Furthermore, attendance records to the general training sessions show that dropout was high. Only 42% of those that started the training completed at least 20 sessions (50%) while only 28% reached at least 30 sessions (75%). The take up rate was similar with the technical assistance (TA) component. Only those women in T1 that started the general training (373) were invited to that second component, and 173 (46%) attended at least one of the group sessions. However, the dropout rate was much lower with this component. Ninety five percent of those that started the group sessions attended half of the programmed sessions for the TA module and 53% (92 microentrepreneurs) reached 75% of the sessions. In what follows of this section, we use a multivariate model to identify the observable characteristics featured by those that accepted to start the training and continue it (Table 8).

Table 8 shows that those eligible women selected to treatment that accepted to start the training tended to be older and, of course, expressed the highest interest in the training at baseline. Education does not seem a significant determinant to accept start, although the ones with secondary education are indeed more likely to stick with the



training: they are 6 percentage points more likely to reach 75% of the general training sessions<sup>12</sup>.

Something similar occurs with the childbearing situation and distance from the place where sessions were given to the women's residence, suggesting the importance of the time constraint to explain the high dropout rate. Accepting to start general training does not seem to be reduced when the woman has a child younger than five years old. However, it does reduce (11 percentage points) the likelihood that she stays until the end. Similarly, the fact that instructions were given in a zone different from the one where the woman resides did not affect effective enrollment but it did increase dropout in about 17 to 18 percentage points. Finally, self-reported personal characteristics and the importance of the business for income do not seem to matter for either enrollment or retention.

## **6) Estimated impacts**

As already mentioned in section 3, we have been able to re-interview about 82% of those interviewed at baseline (1627 of 1983). We present here the results related to business results and business practices, as well as upon some key indicators of women's empowerment within the house.

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<sup>12</sup> Notice that the regressions on attendance are run over the sample of beneficiaries from T1 and T2 that started the training.

### ***Business practices and results***

Table 10 presents the estimates of the ITT effects for several indicators associated to business results and practices. Column (4) presents the estimates of the effects of treatment using several covariates as controls, including the value of the corresponding dependent variable at baseline, business size and activity, as well as age and schooling of the eligible female. Column (5) presents the estimates of the effects for those treated only with the general training (GT) component while column (6) shows the estimated impacts for the group that received the regular training plus a technical assistance (TA) component. In terms of business sales, we find in all cases positive differences in favor of those female microentrepreneurs that received treatment, but they are not statistically different from zero once we include zone's fixed effects and key controls. In the case of sales in a normal month, for instance, we find a large average effect; those treated sell now 12% more than the control group under the preferred specification, but such difference is not statistically different from zero. A very interesting result for policy is that when looking at differences by treatment group, we see that those sales increases come mainly from those for whom the treatment included GT+TA. In a normal month, those treated with GT+TA sell now 19% more than their control counterparts. We do not find any significant employment effects, so the sales increases imply a productivity gain for the GT+TA treatment group.

The next question is whether sales increases can be associated to changes in business practices closely connected to the messages provided with the training delivered. The second panel in Table 10 reports the effects on variables such as the formality of the

business, management of household and business accounts, registry of key business movements and planning or execution of major changes/innovations in the entrepreneurial activity of women in treated and control groups. For the most part, we find no statistically significant adjustments in business practices. But the detected adjustments vary drastically depending of the type of treatment received. GT treated women were more likely to close their old businesses (3.5 percentage points). In turn, those that received GT+TA were more prone to plan and implement innovations in their current business (about 3.5 percentage points). Strictly speaking, the latter effects are not significant at the 10% confidence level, but the p-values are below 0.11, so that I would argue that there is a sizable movement in that direction, which is consistent with the fact that technical assistance may work by helping our female microentrepreneurs act on the ailments identified during the regular training. We also find that GT+TA trained women were 5.7 percentage points more likely to participate in business-related associations. This finding is very relevant considering that the value of associating with business peers and how to make them work was one of the most important messages in the TA module of the training.

Considering that looking at too many individual variables increases the likelihood of finding a false impact (Duflo, Glennester and Kremer, 2007), we next look at the aggregate measures of business results and practices<sup>13</sup>. In Table 11, we also take advantage of the reduction on the number of variables under analysis to explore the presence of heterogeneous impacts, across education, business size and geographical location. The

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<sup>13</sup> See methodological discussion in section 3.

index on business results indeed shows a positive effect (0.09 s.d.). An interesting finding is that business results effects clearly accrue among those run by single women (0.34 s.d.), with a more entrepreneurial attitude index (0.36 s.d.), in households with titled dwellings (0.09 s.d.), and where the women's business is relatively more important for the household's budget (0.25 s.d.), and for larger businesses (0.11 s.d.)<sup>14</sup>.

Interestingly, the aggregate standardized index for business practices shows statistically significant positive average effects of the training (0.037 s.d.), in particular, for those that received full treatment (0.049 s.d.). I interpret these results to indicate that the training affected our female microentrepreneurs in a very heterogeneous way, so that not many individual variables changed significantly. However, when looking at the aggregate index, we see that they all change some dimension of their practices as recommended by the training. We also see that, consistent with the effects on business results, the effects on business practices accrue around businesses run by single women, with high entrepreneurial attitude, in households with a titled plot and with larger businesses. However, we also find that business with treated, less educated owners are clearly changing their business practices, although that does not seem to have led to improved business results. A similar pattern is observed in households less dependent of the women's business as they tend to present the larger, significant effects in business

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<sup>14</sup> See appendix for the precise definition of the entrepreneurial attitude index and the relative importance of the women's business for the household budget.

practices, although effects on business results are observed in households more dependent of the women's businesses.

Finally, in Table 12 we analyze whether the training led to an increased use of business credit, either from formal or informal sources, using or not their property titles as collateral. We find a small increase in the use of credit, as measured by the number of loans. However, we see a portfolio adjustment as trained microentrepreneurs decrease the use of regulated sources in favor of non-regulated ones, especially from juntas or associations of peers. Again, this result comes mainly from those microentrepreneurs that received full treatment (GT+TA), and is consistent with the increased associativity and higher implementation of innovations reported in Table 10.

### ***Empowerment of the female microentrepreneur***

In Table 13, we report the impacts of the training on the participation of the beneficiary on key business and home decisions. In Table 6, we reported the participation of the female microentrepreneur in key business decisions such as savings/borrowings, withdrawals from the business, choice of providers, etc., as well as household decisions such as fertility, large purchases or the need to hide money for savings, etc. In Table 13, we focus on the standardized aggregate index using all the variables in Table 6, and analyze differences by sub-groups. We do not find effects on the participation of the woman in business decisions, but we do find positive effects on their participation in household decisions. Opposite to the effects in business practices and results, these effects accrue in those that received

only the general training (0.06 s.d.), and for those younger, with less education, single, different from the heading couple, and with a titled plot. When looking at individual decisions, we find the most affected decision is those associated to savings/borrowing for the household.

### ***Time use by household members***

We asked all household members about the number of hours a week they dedicate to working, either at the women's business or at other jobs, household chores and to studying. For the most part, we do not find any effect on the adults, either male or female, and including the beneficiary herself. However, we do find that older male children (14-17 years old) in the household of the treated beneficiary tend to work more in the women's business. A somewhat surprising result is that their female counterparts tend to work less in the women's business but rather at other jobs.. However, no effects are found on the number of hours a week either dedicate to their studies.

## **7) Summary and discussion**

We report here the results on the impacts of a business training intervention aimed at female microentrepreneurs in Lima, Peru that had previously benefited from a land titling project. In that sense, this experiment is related to key research and policy questions. For one, can we teach entrepreneurship or is business success more related to intrinsic traits? (Karlan and Valdivia, 2010). Second, is business training needed to complement titling for

improving access to credit and help microentrepreneurs escape from poverty, especially in the case of women? (Galiani and Schargrodsky, 2010).

Our findings suggest that business training can indeed lead microentrepreneurs to adopt some of the business practices recommended in the training, although they change with the kind of training received. Those that only received the regular training were more prone to close their businesses, probably when they found out through the training that they were losing money or not covering their opportunity cost, as it has often happened in previous experiences<sup>15</sup>. On the other hand, those that received more specialized business advice moved toward planning and executing innovations to improve their businesses. They also increased collaboration with their peers, which is consistent with another strong message associated to the TA component. When looking at the credit activity, we see that one of the roles for which these associations are being used is to help improve access to credit.

Furthermore, we see that the adjustments made by those that received full treatment led to sizable significant increases in business sales. That is, the specific advice seemed to have been key in helping microentrepreneurs improve their businesses. Those that only received the general good practices were not able to plan such innovations, so that they tended to close their businesses if they found out they were not profitable during

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<sup>15</sup> Karlan and Valdivia (2010) reported that the session in which microentrepreneurs learned to calculate costs and profits was shocking for many of them, as they learned how far below their opportunity cost or reservation wage they were.

the training<sup>16</sup>. Furthermore, younger microentrepreneurs, with higher entrepreneurial attitude, in households with a titled plot and with larger businesses , that received full training, are the ones with larger or more robust effects for both, business results and practices, which understates the importance of the technical assistance in generating the observed outcomes.

The policy implication of this result may be huge. It says that although regular training may be cheaper and more easily scalable, a more specific advice is required to help microentrepreneurs grow. In that sense, the challenge may be to find delivery mechanisms for this TA component that are cheaper and more scalable. However, we still need to be cautious in the interpretation of these results, as we cannot yet be sure that the full intervention permanently increases the management abilities of the treated microentrepreneurs. It just tells us that the business advisors were effective in making microentrepreneurs improve some aspect of their business practices, which led to increased sales revenue. But we do not know whether this experience have permanently improved the business skills of the microentrepreneur, so that their vulnerability to future changes in the economic context is indeed reduced. He could indeed purchase again

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<sup>16</sup> There are differences between the facilitators and beneficiaries of this study with respect to those in the FINCA study in Karlan and Valdivia (2011). Facilitators in this study may have more experience or expertise than the FINCA credit officers as they are professionals specialized in adult training. Also, the beneficiaries in this study may have less access to financial services than the FINCA clients. However, the existence of the GT treatment group, with an intervention similar in principle to that of FINCA, helps us discard that the effects found here correspond to higher quality of the training materials, the facilitators or differences in the characteristics of the beneficiaries with respect to that previous study. If so, we would have found positive effects on the GT treatment group.



technical advice, now that he knows it can work, but that may be complicated if such market is missing or face serious informational asymmetries. A new visit to these microentrepreneurs may provide useful information regarding this question.

Finally, empowerment effects are small or weak despite the inclusion of the personal development module. We find no improved participation of the beneficiaries in key business decisions, although we should point out that their participation was already high at the moment of the baseline. We do see increased participation in savings/borrowing for family or personal purposes. Finally, we find that treated women tended to be more inclined towards women working outside the home, but many still understand that such employment may be a source for problems in family relations. Also, no change is observed in attitudes towards domestic violence and gender relations. As a result, we may want to intensify the personal development module to further empower female microentrepreneurs, but such strategy also needs to consider that time is a scarce resource for these women, as can be seen from the low compliance and high dropout identified for this intervention. Indeed, the fact that we find the presence of children under five and the distance to the training center as important determinants of the dropout rate understates the need that future related interventions include specific measures to reduce this conflict for microentrepreneurs interested in training that are too busy to sustain attendance for long periods. The most obvious adjustments would include increasing time efficiency in the delivery and also adding child care services during the time of the sessions.

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Table 1: Socio-economic characteristics of the beneficiary  
(standard errors in parenthesis)

	Control	Treatment	Global
<i>Age</i>			
Years old	42.9 (0.821)	43.1 (0.547)	43.0 (0.071)
17-34 years old	0.282 (0.027)	0.285 (0.019)	0.284 (0.002)
35-50 years old	0.424 (0.021)	0.431 (0.015)	0.429 (0.003)
51-more years old	0.294 (0.028)	0.284 (0.020)	0.287 (0.005)
<i>Schooling</i>			
Primary	0.180 (0.021)	0.176 (0.015)	0.177 (0.002)
Secondary	0.576 (0.025)	0.587 (0.017)	0.584 (0.005)
Higher education	0.239 (0.023)	0.230 (0.016)	0.233 (0.004)
<i>Marital Status</i>			
Single	0.180 (0.014)	0.191 (0.012)	0.188 (0.005)
Married / Cohabiting	0.613 (0.018)	0.631 (0.016)	0.626 (0.008)
Divorced / Widowed	0.207 (0.017)	0.178 (0.011)	0.186 (0.013)
<i>Role at home</i>			
Head	0.323 (0.024)	0.299 (0.019)	0.306 (0.011)
Head's partner	0.503 (0.026)	0.540 (0.019)	0.529 * (0.017)
Other role	0.175 (0.020)	0.161 (0.015)	0.165 (0.006)
# household members	4.579 (0.083)	4.592 (0.068)	4.588 (0.006)
Partner living at home	0.681 (0.017)	0.712 (0.012)	0.703 * (0.014)
<i>Titling status</i>			
No title	0.201 (0.022)	0.195 (0.017)	0.197 (0.003)
COFOPRI	0.638 (0.025)	0.627 (0.022)	0.630 (0.005)
Other	0.152 (0.020)	0.155 (0.015)	0.154 (0.001)
# Observations	565	1418	1983

Notes: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%;

Table 2: Characteristics of the beneficiary's main business  
(standard errors in parenthesis)

	Control	Treatment	Global	
<i>Family businesses</i>				
# of family businesses	1.225 (0.039)	1.211 (0.025)	1.215 (0.006)	
# of family businesses run by beneficiary	0.996 (0.016)	1.010 (0.015)	1.006 (0.006)	
<i>Business line of work</i>				
Commerce				
Food				
Fresh food	0.200 (0.022)	0.220 (0.015)	0.214 (0.009)	
Groceries	0.121 (0.022)	0.137 (0.013)	0.132 (0.007)	
Non-Food				
Bazaar	0.125 (0.019)	0.111 (0.008)	0.115 (0.006)	
Clothing and footwear	0.127 (0.031)	0.133 (0.020)	0.131 (0.003)	
Others	0.084 (0.011)	0.087 (0.009)	0.086 (0.001)	
Production / processes				
Food	0.118 (0.013)	0.119 (0.009)	0.119 (0.001)	
Manufacturing	0.073 (0.014)	0.052 (0.007)	0.058 (0.009)	
Services	0.061 (0.006)	0.068 (0.008)	0.066 (0.004)	
# Observations				
<i>Business size</i>				
Weekly sales	539.266 (45.635)	498.4 (32.0)	510.0 (18.4)	
Up to S/. 100 (per week)	0.258 (0.024)	0.243 (0.023)	0.247 (0.007)	
From S/.101 to S/.500 (per week)	0.482 (0.018)	0.534 (0.016)	0.519 (0.023)	***
Over S/.500 (per week)	0.260 (0.019)	0.223 (0.016)	0.234 (0.017)	*
# Observations				

Notes: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%;

Table 3: Family participation in beneficiary's main business  
(standard errors in parenthesis)

	Control	Treatment	Global
All members	0.402 (0.015)	0.377 (0.007)	0.384 (0.011)
Other adults	0.286 (0.022)	0.246 (0.012)	0.258 (0.018)
Male	0.285 (0.026)	0.236 (0.013)	0.250 * (0.022)
Female	0.288 (0.026)	0.266 (0.015)	0.272 (0.010)
All children	0.174 (0.025)	0.142 (0.019)	0.151 (0.014)
7-13 years old	0.094 (0.014)	0.102 (0.018)	0.100 (0.004)
Male	0.072 (0.021)	0.089 (0.017)	0.085 (0.007)
Female	0.114 (0.021)	0.117 (0.024)	0.116 (0.001)
14-17 years old	0.276 (0.040)	0.207 (0.028)	0.227 ** (0.032)
Male	0.243 (0.046)	0.170 (0.032)	0.190 ** (0.033)
Female	0.308 (0.045)	0.247 (0.033)	0.266 (0.028)

Notes: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Table 4: Family participation in beneficiary's main business  
(standard errors in parenthesis)

	Beneficiary	Other adults		Children		Total		
		Male	female	7-13 years male	female	14-17 years male	female	
<b>Hours per week</b>								
Work family business	48,3 (27,42)	11,7 (24,99)	10,7 (22,19)	1,6 (7,01)	2,3 (8,96)	4,9 (13,53)	6,1 (14,36)	85,5
Jobs outside home	4,0 (13,66)	33,6 (29,95)	17,1 (25,29)	0,3 (3,54)	0,2 (2,80)	2,1 (9,65)	1,4 (8,84)	58,7
Household chores	22,2 (13,20)	5,3 (8,16)	16,5 (15,27)	5,6 (6,60)	6,7 (7,25)	8,1 (13,55)	7,9 (10,79)	72,4
Studies	0,5 (3,89)	3,0 (9,90)	5,0 (12,32)	20,9 (17,56)	21,1 (16,60)	18,5 (17,81)	18,2 (17,86)	87,2
<b>All activities</b>	<b>75,1</b>	<b>53,6</b>	<b>49,3</b>	<b>28,3</b>	<b>30,3</b>	<b>33,7</b>	<b>33,5</b>	<b>303,9</b>
<b>% by activity</b>								
Work family business	0,61 (0,28)	0,19 (0,36)	0,17 (0,30)	0,05 (0,18)	0,06 (0,17)	0,11 (0,25)	0,12 (0,24)	
Jobs outside home	0,05 (0,18)	0,58 (0,45)	0,30 (0,40)	0,02 (0,13)	0,02 (0,11)	0,05 (0,20)	0,03 (0,15)	
Household chores	0,33 (0,23)	0,16 (0,28)	0,42 (0,38)	0,33 (0,38)	0,34 (0,36)	0,35 (0,35)	0,44 (0,36)	
Studies	0,01 (0,15)	0,08 (0,24)	0,11 (0,26)	0,60 (0,41)	0,60 (0,39)	0,49 (0,40)	0,41 (0,38)	
<b>All activities</b>	<b>1,01</b>	<b>1,00</b>	<b>1,00</b>	<b>1,00</b>	<b>1,00</b>	<b>1,00</b>	<b>1,00</b>	
<b># Observations</b>	<b>1963</b>	<b>2663</b>	<b>1430</b>	<b>526</b>	<b>504</b>	<b>361</b>	<b>369</b>	<b>7816</b>

Table 5: Access to credit and background on business training  
(standard errors in parenthesis)

	Control	Treatment	Global
<i>Credit access (any source, any reason)</i>	0,495	0,524	0,515
Last year	(0,027)	(0,014)	(0,013)
Business credit (any source)	0,42	0,445	0,4375
Formal	(0,026)	(0,012)	(0,011)
Informal	0,288	0,302	0,298
Business credit w/ warranty	(0,027)	(0,014)	(0,006)
Mortgage warranty	0,173	0,196	0,189
Home credit (any source)	(0,023)	(0,013)	(0,011)
Mortgage warranty	0,180	0,179	0,179
Home credit (any source)	(0,027)	(0,018)	(0,001)
Mortgage warranty	0,101	0,101	0,101
Home credit (any source)	(0,019)	(0,014)	(0,000)
Home credit (any source)	0,158	0,154	0,155
Home credit (any source)	(0,019)	(0,016)	(0,001)
<i>Background on business training</i>			
Previous experience	0,174	0,158	0,163
Interest in training (general)	(0,020)	(0,011)	(0,007)
free training	4,840	4,821	4,826
10 soles per session	(0,024)	(0,019)	(0,008)
free training	4,866	4,855	4,858
10 soles per session	(0,022)	(0,016)	(0,005)
10 soles per session	4,292	4,217	4,238
10 soles per session	(0,046)	(0,056)	(0,034)
# Observations	564	1418	1982

Note: For interest - 1-Non-interested, 5-Very interested. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%



Table 6: Women's participation in key business and home decisions  
(standard errors in parenthesis)

	Participate in decision				Decide alone			
	Control	Treatment	Global		Control	Treatment	Global	
<b>Empowerment at business (decisions)</b>								
Savings	0,879 (0,012)	0,912 (0,012)	0,902 (0,015)	***	0,746 (0,016)	0,800 (0,014)	0,785 (0,025)	***
Borrowings	0,874 (0,012)	0,910 (0,012)	0,899 (0,016)	***	0,710 (0,021)	0,769 (0,018)	0,752 (0,026)	**
Withdrawals (money) - when & how much	0,877 (0,013)	0,914 (0,011)	0,903 (0,017)	***	0,758 (0,018)	0,815 (0,016)	0,799 (0,026)	***
Withdrawals (products) - when & how much	0,881 (0,013)	0,915 (0,012)	0,905 (0,015)	***	0,754 (0,017)	0,824 (0,016)	0,804 (0,031)	***
What to do with business' income	0,879 (0,013)	0,915 (0,012)	0,905 (0,016)	***	0,753 (0,018)	0,819 (0,016)	0,800 (0,030)	***
What products offer	0,883 (0,013)	0,916 (0,013)	0,907 (0,015)	***	0,756 (0,018)	0,814 (0,016)	0,798 (0,026)	***
Where to sell or produce	0,884 (0,014)	0,912 (0,012)	0,904 (0,013)	***	0,769 (0,018)	0,819 (0,017)	0,804 (0,023)	***
Who is the provider	0,870 (0,013)	0,908 (0,013)	0,897 (0,017)	***	0,767 (0,017)	0,824 (0,015)	0,807 (0,026)	***
To start the business	0,819 (0,014)	0,869 (0,016)	0,855 (0,023)	***	0,673 (0,018)	0,738 (0,015)	0,720 (0,030)	***
Is responsible of pay business bills	0,865 (0,013)	0,907 (0,012)	0,895 (0,019)	***	0,758 (0,020)	0,827 (0,017)	0,807 (0,031)	***
<b>Empowerment at home (decisions)</b>								
Savings	0,915 (0,010)	0,910 (0,011)	0,911 (0,003)		0,594 (0,023)	0,607 (0,015)	0,603 (0,006)	
Borrowings	0,903 (0,012)	0,903 (0,011)	0,903 (0,000)		0,528 (0,024)	0,527 (0,014)	0,527 (0,000)	**
No need to hide money to save	0,504 (0,043)	0,460 (0,026)	0,472 (0,020)		n.a.	n.a.	n.a.	
Is in charge of home-accounting	0,859 (0,016)	0,851 (0,013)	0,853 (0,004)		0,534 (0,028)	0,579 (0,015)	0,567 (0,020)	
Number of children	0,852 (0,027)	0,885 (0,020)	0,876 (0,015)	**	0,346 (0,020)	0,375 (0,023)	0,367 (0,013)	
When to have children	0,827 (0,034)	0,852 (0,030)	0,845 (0,011)		0,322 (0,022)	0,371 (0,023)	0,357 (0,022)	
The last important home-expenditure	0,664 (0,030)	0,662 (0,022)	0,663 (0,001)		0,333 (0,024)	0,363 (0,017)	0,354 (0,014)	

Notes: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Table 7: Attitudes towards women's economic roles and entrepreneurship  
(standard errors in parenthesis)

	Control	Treatment	Global
<b><i>Attitudes towards women's economic role</i></b>			
There is no problem if women work outside home	1,510 (0,041)	1,454 (0,033)	1,470 (0,025)
A shared house title gives same rights to men and women about the use of property	2,932 (0,016)	2,917 (0,014)	2,922 (0,007)
If women work, men should help with housework	2,973 (0,011)	2,972 (0,006)	2,972 (0,001)
Men should never hit women	2,941 (0,014)	2,942 (0,007)	2,942 (0,000)
Women can work outside home	2,877 (0,020)	2,873 (0,019)	2,874 (0,001)
Men do not always have the last word in important decisions	2,857 (0,030)	2,855 (0,021)	2,856 (0,001)
<b><i>Entrepreneurial attitudes</i></b>			
Independent (dislikes orders)	0,327 (0,030)	0,354 (0,020)	0,347 (0,012)
Innovator	0,897 (0,015)	0,914 (0,012)	0,909 (0,008)
Persistent	0,906 (0,015)	0,917 (0,007)	0,914 (0,005)
Driven	0,948 (0,010)	0,958 (0,007)	0,955 (0,004)

Notes: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Table 8: Compliance and retention: General training  
(marginal effects reported, standard errors clustered by zone)

	Started	Attendance	
		50% or more	75% or more
<i>Age</i>			
35 to 50 years old	0.113 *** (0.043)	0.179 *** (0.054)	0.104 ** (0.045)
more than 50 years old	0.145 *** (0.054)	0.200 *** (0.054)	0.150 ** (0.058)
Household head	0.032 (0.031)	-0.005 (0.040)	-0.014 (0.038)
<i>Education</i>			
secondary	0.005 (0.051)	0.056 (0.043)	0.063 * (0.036)
Higher education	0.054 (0.051)	0.125 (0.055)	0.055 (0.057)
<i>Number of children</i>			
[0-5] years old	-0.022 (0.029)	-0.097 ** (0.042)	-0.106 ** (0.044)
]5-15] years old	0.017 (0.021)	0.001 (0.027)	0.011 (0.023)
<i>Business size (by weekly sales)</i>			
medium (\$/.101 to \$/.500)	-0.053 (0.041)	-0.026 (0.051)	-0.016 (0.048)
large (over \$/.500)	-0.009 (0.061)	-0.047 (0.062)	-0.045 (0.053)
Very interested in training	0.053** (0.021)	0.014 (0.029)	0.030 (0.028)
<i>Attitudes (self-reported)</i>			
risk prone	0.010 (0.031)	0.043 (0.044)	0.059 (0.038)
impatient	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
independent (dislikes orders)	-0.035 (0.036)	0.000 (0.040)	-0.008 (0.046)
persistent	-0.052 (0.053)	0.025 (0.083)	0.003 (0.083)
innovator	0.016 (0.066)	-0.031 (0.098)	-0.016 (0.073)
driven	-0.047 (0.088)	0.166 ** (0.080)	0.007 (0.123)
<i>Household dependence on women's business</i>			
Medium	0.006 (0.040)	-0.039 (0.042)	-0.027 (0.035)
High	-0.036 (0.067)	0.031 (0.042)	0.021 (0.044)
<i>Distance</i>			
Out	-0.053 (0.086)	-0.187 ** (0.085)	-0.165 ** (0.069)

# observations

1314

660

660

Notes: All regressions include district and business activity fixed effects \*\*\*

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

Table 9: Compliance and retention: Technical Assistance  
(marginal effects reported, standard errors clustered by zone)

	Started	Attendance 75% +
<i>Age</i>		
35 to 50 years old	0.270 *** (0.070)	-0.373 (0.248)
more than 50 years old	0.301 *** (0.076)	-0.752 *** (0.168)
Household head	0.098 * (0.052)	-0.058 (0.153)
<i>Education</i>		
secondary	0.018 (0.065)	0.084 (0.212)
Higher education	0.076 (0.092)	-0.032 (0.232)
<i>Number of children</i>		
[0-5]	-0.003 (0.050)	-0.021 (0.139)
]5-15]	0.010 (0.049)	0.287 * (0.147)
<i>Business sizes (by weekly sales)</i>		
medium (S/.101 to S/.500)	-0.130 * (0.067)	-0.182 (0.190)
large (over S/.500)	-0.229 ** (0.096)	0.207 (0.197)
Very interested in training	0.010 (0.055)	-0.030 (0.116)
<i>Attitudes (self-reported)</i>		
risk prone	0.084 (0.067)	0.292 ** (0.127)
impatient	0.001 (0.001)	-0.009 *** (0.003)
independent (dislikes orders)	0.089 (0.074)	-0.601 *** (0.130)
persistent	0.207 (0.140)	-0.565 *** (0.050)
innovator	-0.055 (0.126)	0.420 ** (0.189)
driven	0.084 (0.283)	0.586 *** (0.034)
<i>Business dependence</i>		
Medium	-0.067 (0.093)	0.147 (0.217)
High	-0.011 (0.089)	0.412 (0.262)
<i>Distance</i>		
Out	-0.111 (0.199)	-0.294 (0.321)
# observations	309	144

Notes: All regressions include district and business activity fixed effects \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 10: Intention to Treat (ITT) effects – business results and practices  
(standard errors in parenthesis)

	# de obs.	Control at FU (1)	Treatment at FU (2)	No covariates (3) = (2)-(1)	With covariates (4)	GT (5)	GT+TA (6)
<b>Business Results</b>							
Monthly sales (log)							
Last week	1547	7,079	7,800	0,721 *** (0,223)	0,104 (0,118)	-0,090 (0,089)	0,176 * (0,095)
Excelent month	1544	9,001	9,727	0,726 *** (0,224)	0,111 (0,117)	-0,106 (0,092)	0,195 ** (0,091)
Normal month	1536	8,598	9,303	0,705 *** (0,211)	0,124 (0,113)	-0,080 (0,088)	0,186 * (0,107)
Bad month	1535	7,970	8,738	0,768 *** (0,226)	0,140 (0,132)	-0,079 (0,096)	0,189 * (0,102)
Employment							
Number of total workers	1623	2,915	2,903	-0,012 (0,054)	-0,013 (0,053)	-0,057 (0,045)	0,045 (0,047)
Number of non-family workers	1623	0,229	0,156	-0,073 (0,046)	-0,039 (0,050)	-0,025 (0,035)	-0,008 (0,030)
<b>Business Practices</b>							
Tax formality	1624	0,132	0,127	-0,005 (0,022)	0,006 (0,017)	-0,010 (0,015)	0,015 (0,018)
Financing strategies business vs household							
Paid fixed salary to herself	1623	0,056	0,071	0,015 (0,013)	0,021 (0,012)	0,008 (0,012)	0,010 (0,012)
No Taking money/products of the business	1623	0,225	0,238	0,013 (0,019)	0,026 (0,020)	0,022 (0,019)	-0,001 (0,021)
Keeping records of business activities							
Sales	1623	0,236	0,262	0,026 (0,022)	0,039 (0,023)	-0,004 (0,022)	0,038 * (0,020)
Withdrawals	1623	0,169	0,180	0,011 (0,023)	0,025 (0,024)	0,007 (0,015)	0,015 (0,021)
Other payments	1623	0,063	0,037	-0,026 ** (0,011)	-0,012 (0,010)	-0,019 *** (0,006)	0,010 (0,008)
Innovations in business activities							
Started new business last year	1624	0,121	0,124	0,003 (0,020)	0,003 (0,021)	0,017 (0,018)	-0,013 (0,016)
Stop any business operation - last two years	1624	0,157	0,172	0,015 (0,020)	0,031 (0,020)	0,035 * (0,020)	-0,009 (0,013)
Identify no problems with business	1623	0,371	0,386	0,015 (0,024)	0,021 (0,023)	-0,006 (0,027)	0,025 (0,030)
Planned innovations for her business	1623	0,755	0,769	0,014 (0,021)	0,014 (0,021)	-0,022 (0,018)	0,033 (0,020)
Executed innovations in her business	1623	0,694	0,714	0,020 (0,023)	0,027 (0,020)	-0,014 (0,023)	0,035 (0,021)
<b>Participation in business related associations</b>							
Participates	1624	0,105	0,141	0,036 ** (0,017)	0,055 *** (0,018)	-0,010 (0,013)	0,057 *** (0,020)
# in which she participates	1624	0,112	0,153	0,041 ** (0,019)	0,061 *** (0,022)	-0,011 (0,015)	0,064 ** (0,025)

Notes: All standard errors are clustered at zone. Regressions in columns (4)-(6) include zone's fixed effects, the value of the dependent variable at BL and controls such as business activity, business size, age and schooling of the eligible female.

Table 11: Intention to Treat (ITT) effects – Aggregate standardized indexes for business results and practices by sub-groups (standard errors in parenthesis)

	Business results				Business practices			
	# de obs.	Treated	Treated GT	Treated GT+TA	# de obs.	Treated	Treated GT	Treated GT+TA
Full sample	1480	0.034 (0.055)	-0.060 (0.048)	0.089 * (0.044)	1623	0.037 ** (0.014)	-0.018 (0.013)	0.049 *** (0.014)
Education								
Non - higher education	1104	0.025 (0.074)	-0.056 (0.056)	0.077 (0.057)	1212	0.032 (0.020)	-0.030 ** (0.013)	0.058 *** (0.016)
Higher education	376	0.088 (0.097)	-0.073 (0.111)	0.151 (0.110)	411	0.072 (0.044)	0.030 (0.054)	0.033 (0.047)
Marital status								
Single	247	0.253 (0.151)	-0.098 (0.158)	0.343 ** (0.150)	274	0.076 ** (0.033)	-0.037 (0.049)	0.107 ** (0.041)
Married / Cohabiting	945	0.068 (0.054)	0.025 (0.053)	0.030 (0.057)	1048	0.024 (0.020)	-0.015 (0.016)	0.036 ** (0.018)
Divorced / Widowed	288	-0.263 (0.221)	-0.294 ** (0.135)	0.052 (0.103)	301	0.043 (0.047)	-0.033 (0.062)	0.060 (0.043)
Titling								
Without title	237	0.023 (0.118)	-0.129 (0.121)	0.139 (0.108)	269	0.044 (0.036)	-0.030 (0.048)	0.068 (0.043)
Title	1243	0.046 (0.063)	-0.052 (0.051)	0.092 * (0.047)	1354	0.036 ** (0.018)	-0.015 (0.014)	0.045 *** (0.014)
Business size (weekly sales)								
Less than S/.250 (median)	739	0.080 (0.106)	-0.029 (0.087)	0.095 (0.077)	806	0.018 (0.028)	-0.012 (0.024)	0.027 (0.023)
More than S/. 250	741	0.041 (0.077)	-0.069 (0.055)	0.107 ** (0.052)	817	0.059 ** (0.025)	-0.022 * (0.013)	0.074 *** (0.025)
Cone								
North Cone	736	0.036 (0.052)	-0.025 (0.054)	0.064 (0.048)	795	0.023 (0.017)	-0.025 (0.023)	0.050 ** (0.022)
South Cone	744	0.045 (0.129)	-0.075 (0.087)	0.105 (0.077)	828	0.064 ** (0.026)	-0.004 (0.011)	0.046 ** (0.018)
Entrepreneurial attitude index								
Low	168	-0.095 (0.315)	-0.031 (0.217)	-0.052 (0.213)	181	0.022 (0.073)	-0.065 (0.062)	0.079 (0.083)
Medium	1012	0.031 (0.071)	-0.033 (0.068)	0.059 (0.047)	1115	0.072 *** (0.023)	-0.009 (0.016)	0.068 *** (0.020)
High	300	0.289 * (0.160)	-0.048 (0.109)	0.364 ** (0.143)	327	0.046 (0.045)	-0.019 (0.032)	0.069 ** (0.033)
Household dependence on women's business								
Low	497	-0.144 (0.124)	-0.115 (0.106)	-0.004 (0.102)	551	0.061 * (0.031)	-0.031 (0.038)	0.087 ** (0.032)
Medium	595	0.120 (0.151)	0.025 (0.101)	0.078 (0.092)	643	0.023 (0.027)	-0.017 (0.030)	0.038 (0.028)
High	388	0.169 (0.139)	-0.111 (0.098)	0.253 ** (0.105)	429	0.054 (0.033)	-0.014 (0.034)	0.058 (0.036)

Notes: All standard errors are clustered at zone and include zone's fixed effects and the following controls: business activity, business size, age and schooling of the eligible female.

Table 12: ITT effects – Credit activity of main business  
(standard errors in parenthesis)

	# de obs.	Control at FU (1)	Treatment at FU (2)	No covariates (3) = (2)-(1)	With covariates (4)	GT (5)	GT+TA (6)
<b># of loans</b>							
Requested loans - all sources	1623	0,539	0,664	0,125 *** (0,041)	0,111 ** (0,044)	0,053 (0,077)	0,042 (0,079)
Approved loans - all sources	1623	0,539	0,664	0,125 *** (0,041)	0,109 ** (0,044)	0,052 (0,077)	0,041 (0,079)
From formal source	1624	0,269	0,242	-0,027 (0,024)	-0,037 (0,024)	0,018 (0,024)	-0,048 ** (0,023)
From bank	1624	0,193	0,177	-0,016 (0,017)	-0,024 (0,017)	0,019 (0,025)	-0,039 (0,024)
From Caja- EDPYME	1624	0,076	0,065	-0,011 (0,012)	-0,011 (0,013)	-0,001 (0,015)	-0,007 (0,014)
From informal source	1624	0,200	0,253	0,053 ** (0,021)	0,065 *** (0,021)	0,012 (0,024)	0,042 * (0,023)
From "Junta"	1624	0,078	0,131	0,053 *** (0,015)	0,066 *** (0,016)	0,010 (0,014)	0,047 ** (0,018)
From relative, friend	1624	0,103	0,097	-0,006 (0,016)	-0,011 (0,015)	-0,008 (0,017)	-0,003 (0,015)
From NGO	1624	0,011	0,016	0,005 (0,006)	0,009 (0,006)	0,008 ** (0,004)	-0,001 (0,004)
From Other	1624	0,072	0,067	-0,005 (0,015)	-0,007 (0,015)	-0,006 (0,015)	-0,001 (0,015)
With some colateral	1623	0,137	0,142	0,005 (0,020)	0,005 (0,021)	0,012 (0,019)	-0,005 (0,021)
With property title as colateral	1623	0,070	0,067	-0,003 (0,016)	-0,006 (0,016)	0,007 (0,013)	-0,011 (0,016)
<b>Total business debt -any source</b>							
Loan size (nuevos soles)	1623	1662,1	1485,0	-177,1 (276,7)	-157,0 (258,6)	164,4 (250,7)	-302,0 (197,0)
From formal source	1623	1350,0	1211,8	-138,2 (244,0)	-132,9 (257,5)	80,5 (224,1)	-203,0 (180,9)
From informal source	1623	312,1	273,2	-38,9 (93,7)	-5,1 (91,5)	51,4 (53,3)	-55,1 (51,8)
<b>No default</b>	1623	0,978	0,983	0,005 (0,008)	0,001 (0,007)	-0,007 (0,007)	0,007 (0,006)

Notes: All standard errors are clustered at zone. Regressions in columns (4)-(6) include zone's fixed effects, the value of the dependent variable at BL and controls such as business activity, business size, age and schooling of the eligible female.

Table 13: ITT effects – Aggregate standardized index for women’s participation in key business and home decisions  
(standard errors in parenthesis)

	Business decisions				Household decisions			
	# de obs.	Treated	Treated GT	Treated GT+TA	# de obs.	Treated	Treated GT	Treated GT+TA
Full sample	1624	0.003 (0.047)	-0.016 (0.049)	0.018 (0.050)	1623	0.055 *** (0.020)	0.057 ** (0.022)	-0.009 (0.023)
Education								
Non - higher education	1212	-0.008 (0.059)	-0.038 (0.047)	0.031 (0.052)	1212	0.058 ** (0.024)	0.061 ** (0.027)	-0.011 (0.029)
Higher education	411	0.015 (0.113)	0.022 (0.131)	-0.012 (0.116)	411	0.075 (0.069)	0.044 (0.052)	0.017 (0.047)
Marital status								
Single	274	0.135 (0.145)	-0.020 (0.164)	0.146 (0.187)	274	0.218 ** (0.084)	0.167 ** (0.071)	0.017 (0.070)
Married / Cohabiting	1048	-0.054 (0.046)	0.013 (0.049)	-0.059 (0.042)	1048	0.034 (0.026)	0.040 * (0.022)	-0.012 (0.033)
Divorced / Widowed	301	0.041 (0.172)	-0.138 (0.143)	0.161 (0.097)	301	-0.017 (0.048)	0.043 (0.044)	-0.049 (0.048)
Role at home								
Head	564	-0.053 (0.078)	-0.100 (0.059)	0.054 (0.077)	564	0.038 (0.039)	0.027 (0.034)	0.010 (0.040)
Head's partner	829	-0.025 (0.041)	0.033 (0.053)	-0.054 (0.048)	829	0.040 (0.028)	0.035 (0.022)	0.000 (0.036)
Other role	230	0.183 (0.163)	-0.035 (0.154)	0.221 (0.198)	230	0.115 (0.095)	0.236 ** (0.090)	-0.122 (0.101)
Age group								
17-34 years old	425	0.051 (0.130)	-0.082 (0.134)	0.125 (0.120)	425	0.166 ** (0.067)	0.165 ** (0.061)	-0.030 (0.048)
35-50 years old	713	0.075 (0.072)	0.087 (0.062)	-0.032 (0.077)	713	0.049 (0.044)	0.014 (0.031)	0.029 (0.029)
51-more years old	484	-0.137 * (0.077)	-0.127 (0.090)	0.013 (0.077)	484	-0.005 (0.048)	0.022 (0.055)	-0.021 (0.035)
Titling								
Without title	269	-0.013 (0.095)	-0.034 (0.103)	0.020 (0.119)	269	-0.042 (0.072)	0.051 (0.048)	-0.086 * (0.049)
Title	1354	0.005 (0.055)	-0.009 (0.044)	0.012 (0.044)	1354	0.073 *** (0.024)	0.062 ** (0.027)	0.000 (0.026)
Household dependence on women’s business								
Low	552	-0.078 (0.112)	-0.036 (0.088)	-0.029 (0.068)	552	-0.001 (0.034)	0.039 (0.036)	-0.038 (0.046)
Medium	643	0.015 (0.125)	-0.012 (0.089)	0.026 (0.094)	643	0.110 *** (0.033)	0.093 *** (0.029)	-0.001 (0.034)
High	429	0.111 (0.076)	0.011 (0.068)	0.086 (0.059)	429	0.026 (0.053)	0.025 (0.047)	0.004 (0.039)

Notes: All standard errors are clustered at zone and include zone’s fixed effects and the following controls: business activity, business size, age and schooling of the eligible female.



Table 14: ITT effects – Time use of household adults (weekly hours)  
(standard errors in parenthesis)

	# de obs.	Control at FU	Treatment at FU	No covariates	with covariate	GT	GT+TA
	(1)	(2)	(3) = (2)-(1)	(4)	(5)	(6)	
<b>Beneficiary</b>							
At business	1626	43.102	44.133	1.031 (1.419)	-0.239 (1.125)	-1.418 (1.209)	1.328 (1.201)
At other work	1626	6.028	4.652	-1.376 ** (0.587)	-0.978 (0.615)	0.305 (0.896)	-1.234 (0.942)
Household chores	1626	22.014	21.808	-0.206 (0.708)	-0.291 (0.564)	0.180 (0.608)	-0.369 (0.518)
Studies	1626	0.736	0.738	0.002 (0.232)	0.170 (0.212)	-0.344 * (0.171)	0.498 * (0.251)
Total	1626	70.143	70.008	-0.135 (1.342)	-0.924 (1.255)	-0.837 (1.216)	0.152 (1.700)
<b>Other male adults</b>							
At business	2533	15.890	14.000	-1.890 * (0.973)	-0.232 (1.315)	-0.602 (1.107)	0.538 (0.949)
At other work	2533	25.102	25.185	0.083 (1.344)	-1.369 (1.536)	0.894 (1.493)	-2.044 * (1.053)
Household chores	2533	6.530	6.807	0.277 (0.402)	0.482 (0.450)	0.308 (0.384)	0.066 (0.312)
Studies	2533	5.558	6.400	0.842 (0.647)	1.095 * (0.590)	-0.354 (0.524)	1.380 *** (0.465)
Total	2533	51.126	50.906	-0.220 (1.235)	-0.009 (1.435)	0.094 (1.398)	0.073 (1.429)
<b>Other female adults</b>							
At business	1354	11.125	10.413	-0.712 (1.863)	-0.303 (1.705)	0.811 (1.493)	-1.031 (1.919)
At other work	1354	18.184	18.027	-0.157 (1.941)	-0.804 (2.057)	0.862 (1.711)	-1.625 (1.487)
Household chores	1354	10.554	10.094	-0.460 (0.756)	-0.388 (0.763)	0.566 (0.750)	-0.832 (0.677)
Studies	1354	9.549	10.165	0.616 (1.106)	1.200 (1.011)	-0.473 (0.922)	1.562 (0.956)
Total	1354	47.544	45.990	-1.554 (1.945)	-1.802 (1.941)	2.019 (2.267)	-3.508 (2.241)

Notes: All standard errors are clustered at zone. Regressions in columns (4)-(6) include zone's fixed effects, the value of the dependent variable at BL and controls such as business activity, business size, age and schooling of the eligible female.

Table 15: ITT effects – Time use of household children (weekly hours)  
(standard errors in parenthesis)

	# de obs.	Control at FU	Treatment at FU	No covariates	with covariate	GT	GT+TA
	(1)	(2)	(3) = (2)-(1)	(4)	(5)	(6)	(6)
<b>Children [7-13]</b>							
<b>Male</b>							
At business	586	6.008	4.874	-1.134 (1.935)	-0.565 (1.811)	-1.633 (1.694)	1.424 (1.881)
At other work	586	4.504	4.492	-0.012 (1.559)	-0.355 (1.648)	-0.053 (1.971)	-0.690 (1.047)
Household chores	586	5.427	7.184	1.757 * (0.997)	1.572 (1.089)	0.895 (0.789)	0.266 (0.686)
Studies	586	21.220	23.230	2.010 (1.727)	0.995 (1.635)	0.603 (1.701)	0.481 (1.946)
Total	586	34.894	37.789	2.895 (2.518)	1.323 (2.944)	0.032 (2.330)	0.958 (1.730)
<b>Female</b>							
At business	521	2.908	4.816	1.908 ** (0.729)	1.900 * (1.017)	1.815 (1.404)	-0.152 (1.860)
At other work	521	7.442	5.794	-1.648 (1.497)	-0.729 (1.751)	-0.050 (1.958)	-0.514 (2.199)
Household chores	521	6.845	6.962	0.117 (0.555)	0.464 (0.709)	1.376 * (0.745)	-0.897 (0.847)
Studies	521	21.445	22.920	1.475 (1.699)	1.058 (1.975)	0.170 (1.833)	0.648 (2.201)
Total	521	37.569	39.281	1.712 (1.777)	2.481 (1.900)	2.026 (1.966)	0.121 (2.298)
<b>Children [14-17]</b>							
<b>Male</b>							
At business	338	3.427	6.719	3.292 ** (1.298)	4.378 *** (1.597)	-2.229 (1.499)	5.257 *** (1.867)
At other work	338	8.321	7.635	-0.686 (2.432)	-0.945 (3.212)	-0.037 (2.151)	-0.700 (2.161)
Household chores	338	7.025	7.862	0.837 (0.778)	0.522 (1.083)	0.337 (1.265)	0.278 (1.148)
Studies	338	18.815	21.597	2.782 (1.710)	2.152 (1.973)	2.903 (2.039)	-0.921 (1.950)
Total	338	35.859	41.962	6.103 ** (2.884)	6.166 ** (2.837)	1.931 (1.545)	3.098 (2.281)
<b>Female</b>							
At business	328	7.794	4.867	-2.927 (1.908)	-1.719 (2.047)	1.681 (2.146)	-3.078 ** (1.350)
At other work	328	6.863	6.633	-0.230 (2.235)	0.804 (2.503)	-2.773 (2.422)	3.200 ** (1.525)
Household chores	328	10.230	10.166	-0.064 (1.273)	-0.176 (1.529)	-0.812 (1.767)	0.574 (1.857)
Studies	328	20.696	22.089	1.393 (1.720)	1.133 (2.059)	1.049 (1.708)	0.098 (1.745)
Total	328	43.670	41.940	-1.730 (2.361)	0.227 (2.547)	0.011 (2.974)	0.199 (1.720)

Notes: All standard errors are clustered at zone. Regressions in columns (4)-(6) include zone's fixed effects, the value of the dependent variable at BL and controls such as business activity, business size, age and schooling of the eligible female.