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Impacts of the Peruvian Conditional Cash Transfer Program on Women Empowerment: A Quantitative and Qualitative Approach

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Abstract

This study aims to identify the effects of the conditional cash transfer program of Peru, Juntos, on women's empowerment. Although the program does not envisage women's welfare as an objective per se, women play a key role as they are the main recipients of the cash transfer and are responsible for compliance with the program's conditions and thus their empowerment level can be affected by the intervention. The study complements econometric quantitative and qualitative methods to identify the effects of Juntos on six dimensions of empowerment: economic household decision-making, freedom of movement, gender ideology, agency, self-esteem and perceptions of life. Using two data sources for the quantitative approach (ENDES and Young Lives Study), the study finds positive significant effects on women empowerment, specifically on economic household decision-making (even when considering large purchases and resources earned by the partner), self-esteem and perceptions of life, in this last case, particularly when women have been part of the program for more than three years. These results are strongly reinforced and explained by the findings of qualitative approach. No significant results are found on agency, freedom of movement or gender ideology, but the qualitative fieldwork results show improvements on agency and freedom of movement mainly because of women participation in training sessions and informal socialization, where they are able to exchange ideas that are then incorporated into their daily lives. However, these improvements may be hampered in some cases by local management of the program in which vertical interaction between the government representatives and beneficiaries are reproduced; women appear as the passive subjects, who only receive benefits, conditions and instructions from the program.

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List of abbreviations

CCT	Conditional Cash Transfer
DHS	Demographic and Health Survey
ENDES	Peruvian Demographic and Family Health Survey
YLS	Young Lives Study

Executive summary

Since conditional cash transfer programs (CCT) are implemented to reduce intergenerational poverty focusing on conditionalities to promote school and health care attendance of children, the evidence of its effects on women empowerment is limited. Women beneficiaries are the ones responsible to comply with the conditions of the program and the ones who personally receive the cash transfer which gives them an important role in the functioning of the program. There are many studies which show impact of the program in its own objectives; however, the effect on women, who are key actors of CCT, has been overlooked. This study aims to identify the impact of *Juntos*, Peru's CCT, on women's empowerment.

CCT programs generate a new environment for women who now have a non salary income. This new benefit can shift the intra household dynamics and women's own perception of themselves and their achievements. Nevertheless, few studies have researched this effect. Adato et al (2000) are one exception for a quantitative approach (the authors make an extensive study of Mexico's CCT program); more studies have used qualitative approaches but with no conclusive results of the impact of the transfer on women empowerment.

Considering that women's empowerment is a complex process and knowing it involves many dimensions, we focus on six dimensions: decision-making regarding household resources, freedom of movement, gender roles and ideology (including perception of rights, rejection of male domination and domestic violence), perception of life, agency and self esteem. To achieve the objectives of this study, we complement econometric quantitative and qualitative methods to identify the effects of *Juntos* on each dimension of empowerment.

For the quantitative approach, we use two sets of databases, Peruvian Demographic and Health Survey (ENDES) and the Young Lives Study Survey (YLS). Also, given that the program intervention has not followed an experimental design, it was necessary to use quasi-experimental techniques to identify the effects of the program on the empowerment indicators in a similar way as other previous studies have done on the impacts of *Juntos* using the same databases (Perova 2010, Perova and Vakis 2012, Jaramillo and Sánchez 2012, Escobal and Benites 2012, Ritter 2014).

We used information from ENDES to construct a data pool from 2004 to 2012 to compare, according to the observable characteristics, the results of women's empowerment indicators of the households affiliated to *Juntos* to women belonging to potentially beneficiary households. To achieve the study goals, a generalized Difference-in-Differences regression is estimated (Angrist and Pischke 2008). This strategy enables evaluating the program controlling for individual characteristics, as well as data of the household and of the districts that simulate the focalization process of the program. In addition, to complement the first strategy and introduce other empowerment dimensions, using the YLS database, it is possible to evaluate the changes in other empowerment indicators by combining the Propensity Score Matching (PSM) technique –that emulates the focalization process of the *Juntos* program to establish a treatment group and a control group (Abadie and Imbens 2006)– together with the Double Difference technique that will use the panel data to obtain estimators to measure the effect of the program comparing the variations of the means of the assigned groups at two point in time, before and after the program treatment (Angrist and Pischke 2008).

For the qualitative approach a fieldwork was performed in rural areas of selected districts in the regions of La Libertad, Piura, Junín, Huánuco and Apurímac. The qualitative strategy

consists in applying semi-structured in-depth interviews to beneficiaries, to partners of beneficiaries and other local actors, such as managers of the program *Juntos* and community leaders, and focus groups of beneficiaries in the districts selected. Beneficiaries were selected for interviews of focus groups considering heterogeneity, particularly regarding age, education levels and if they work or not, so that they may explore in depth issues related with gender roles, episodes of violence, agency and self esteem from their different perspective and local context. The idea is that this qualitative study must be closely related to the quantitative study, so that it may allow a more understanding of the impact of *Juntos* on women's empowerment (Denzin 1978, Greene et al 1989).

Results of the quantitative estimates show that the main effect of *Juntos* is greater bargaining power for women, allowing them to become more involved in decisions on how to allocate household resources, which includes decisions regarding major household purchases and even resources earned by the partner. This result is reinforced by the findings of qualitative approach, which shows significant changes have occurred in economic empowerment of women, they have a greater participation and a much active role on resource management and decision making within the household, which at the same time, increase their level of personal security and autonomy.

Also, results of the quantitative approach find improvements in self esteem and life perception over time as an effect of *Juntos*. This result is strongly reinforced by the qualitative approach, which presents women who feel better about themselves and their future, and more integrated in the community. The improvement in self esteem and autonomy occurs also because of women participation in training sessions and informal socialization where previously did not had access to; participation lead women to go out of the family sphere, which they were limited before, and to exchange ideas, information and knowledge which are then incorporated into their daily lives. However, these improvements may be hampered in some cases by local performance of the program when authorities and organizations influence women into complying activities that are not part of the program. Negative effects may result of local management of the program in which vertical interaction between the government representatives and beneficiaries are reproduced; women appear as the passive subjects, who only receive benefits, conditions and instructions from the program. This type of relationship, with little participation and limited information, has negative effects on women empowerment.

Finally, quantitative estimations have not identified significant impacts of *Juntos* on other empowerment dimensions, in particular freedom of movement and gender ideology. Nevertheless, the findings in the qualitative approach reveal that the program has had some positive impact in freedom of movement, since now women are able to attend to program and community meetings. Even so, qualitative results are uncertain in gender ideology in which traditional roles of labor pose a division of labor within the household; women are responsible for domestic labor and childcare. As for gender violence, there may be some positive effect on women rights, but domestic violence it is still widely spread in the localities of *Juntos*, only with exceptions –i.e. local program managers who by own initiative treat directly the subject– it does not appear to be any tendency to a real significant reduction.

1 Introduction

1.1 Context of the study

There is abundant literature about the effects of Conditional Cash Transfer Programs (CCT) on poverty, nutrition, education, health and other related variables (Saavedra and García, 2012, Fiszbein et al, 2009, Adato and Hoddinott, 2007, Rawlings and Rubio, 2003, among many others). Nevertheless, while it is accepted that the effects of these programs depend strongly on the women's role, little is known about their impact on them (Molyneux, 2008). On one hand, it is argued, that CCT may empower women encouraging them to seek more active positions in their communities and in their homes. For example, Escobar Latapi and González de la Rocha (2008) find that the "*Oportunidades*" Program in Mexico contributes to raise women self-esteem and promote their role in their communities. It is also expected that beneficiary mothers may also benefit economically, as they use the transfer to start up or expand small businesses. On the other hand, it is claimed that CCT may impose greater obligations to the heavily burdened agendas of beneficiary mothers and may strengthen their traditional role, hindering their empowerment (Benderly 2011; Molyneux 2008). It is even considered that handing money out to the mothers could exacerbate domestic violence in patriarchal home contexts. For instance, Cacique (2005) finds that CCT may pose a greater risk of violence from their partners, although Perova (2010) sustains the opposite, that the Peruvian CCT reduces violence against women. In any case, results regarding the impact of CCT on women empowerment are scarce and not conclusive.

Juntos presents the usual characteristics of CCT, which include as basic element the role of the beneficiary mother as receiver of the transfer and as the person responsible for complying with the conditions. While the initial design of the program did not consider an adequate impact evaluation design, it has been the subject of several studies that have determined positive effects in poverty reduction, in the use of health and education services (Perova and Vakis 2009) and on the reduction of severe chronic malnutrition (Jaramillo and Sánchez 2012), among other effects. Several case studies and other works based on qualitative methods (Jones et al 2007, Streuli 2010, Correa and Roopnaraine 2014) have addressed the effects of the program in the households and communities. While these studies do not focus on analyzing the effects of *Juntos* on women welfare, they do include relevant results, such as the increment of the work burden of women and the reinforcement of their traditional role in child care.

1.2 Research questions and objectives

In this context, this study seeks to identify and analyze the impact of *Juntos* in the empowerment of beneficiary mothers. While we are aware that the design of the program does not include women empowerment as an objective, we consider that this contribution may be relevant from a policy perspective, as it will provide information about the effects of the program on women that may be used to improve the program policies to improve women's welfare. Furthermore, from a knowledge perspective, we expect the study to contribute to the still inconclusive international literature on the effects of CCT on women.

More specifically, the study proposes to analyze the impact of *Juntos* on the empowerment of beneficiary mothers, who receive the transfer and are responsible for compliance of the conditionalities in terms of their decision power regarding management of household resources, gender ideology issues (opinion, desires and rights, including gender-related violence issues), freedom of movement, agency, self-esteem and perception of life.

To accomplish its objectives, the study complements econometric quantitative and qualitative methods. In the first case, it uses information available from household surveys to identify the impact of *Juntos* comparing

households affiliated to the program with non-beneficiary similar households, according to observable characteristics considered in the program targeting strategy, using *Differences in Differences* and *Propensity Score Matching* techniques. In the second case, the study complements those results with a qualitative work involving in-depth interviews and focus groups of beneficiaries and other key actors in eight communities, to better understand the channels of the effects in women empowerment.

2 Literature review

This section presents a conceptual framework based on a review of the existing relevant literature; accordingly, it identifies possible influence channels of *Juntos* in women empowerment. We first present a brief review of empowerment studies and define how we understand women empowerment in this study. Then, we review what we know about the effects of the CCT in women empowerment. Finally, we present the main characteristics of the CCT in Peru, *Juntos*, and what is known regarding its effects on women.

2.1 Women Empowerment

The term empowerment has been used in different fields of research and has adopted a wide array of definitions over the years. Since the 70s, empowerment has been included in the field of development for the analysis of excluded groups in general and to address gender equality issues in particular. Kabeer (1990) proposes a definition of empowerment, often used in other studies, describing it as the process through which individuals acquire the capacity to make strategic decisions in their lives within a context where previously they had been denied such capacity. Malhorta et al. (2002) considers this the best way to define empowerment, not only because of its common use in literature¹, but also because it identifies two key characteristics: 1) to understand it as a continuous process through which individuals generate change; and 2) to relate empowerment with the agency² role. Based on this concept, Malhorta et al. (2002) propose indicators representing six dimensions of empowerment: economic, socio-cultural, family-personal, legal, political and psychological. From a similar perspective, Schuler (1997) defines empowerment as the process through which women increase their capacity to configure their own lives and their environment. Also, that it is expressed in six aspects: feeling of confidence and vision of future, capacity to earn a living, capacity to act efficiently in the public sphere, greater decision making power at home, and participation in non-family groups as a resource for support and visibility in the community.

To define the empowerment analysis framework, it is also necessary to identify the main channels through which a variation in women empowerment may be explained. Few studies identify factors associated to the empowerment level: access to market economy (Acharya and Benett, 1983), women's contribution to family income (Espinal, 2000) and access to education and paid labor contribute (Malhorta and Mather, 1997). Along this line, Adato et al. (2000) in the Mexican context, identified women empowerment indicators considering six aspects: decision-making on household expenses, decisions related to children (school attendance, access to health, etc.), women's rights within the marriage, economic safety, participation in the community, and beliefs and perceptions.

Specifically, Cacique (2005, 2008 and 2010) quantified empowerment by indicators based on information obtained from the National Survey on the Dynamics of Household Relations of Mexico, using factor analysis

¹ Malhotra et al (2002) make a review of 45 studies where a measurement for women empowerment is proposed.

²Kabeer (1999) uses the term *agency* to describe the decision making and negotiation process required to use the resources efficiently.

through the principal components method. Indicators proposed by the author are the following: women's decision-making power index (including decisions related to raising children, birth control, major and everyday expenses); autonomy index, which refers to women's freedom of movement to visit friends and engage in community or political activities; gender role index, containing information on the perception of traditional roles, equality, women's rights and rejection of male dominating situations; and, index of participation in housework (division of housework).

In the Peruvian case, Vera Tudela (2010) implemented a thorough work on women's empowerment in Peru³. The author explicitly seeks to identify factors associated to the three empowerment indicators: economic (women's control over family resources), family (participation in household decisions, family planning and their physical or emotional integrity risk) and socio-cultural empowerment (freedom of movement and women's perception about respect for their opinions, rights and desires

For purposes of this research, women empowerment is understood as a process, as defined by Kabeer (1999), which has several dimensions. In the following sections we will measure the impact of *Juntos* in six of them commonly found in literature: economic empowerment, gender roles and ideology, freedom of movement, perception of life, agency and self-esteem.

2.2 Conditional Cash Transfer Programs and Women's Empowerment

While the beneficiaries of the CCT are the households, in practice, the recipients of the cash and responsible of compliance with the program requirements are the mothers. This characteristic is common to most CCT and was adopted based on existing evidence that supports the fact that women are more inclined to invest the household resources to improve their children welfare (Brandshaw and Quiroz Viquez 2008, Adato et al 2000). Even though the effects of the program depend largely on the women's role, little has been studied about the impact of CCT in women and the existing literature is inconclusive (Molyneux 2008).

Nevertheless, Adato et al. (2000) conducted an extensive impact assessment of the Mexican CCT on women empowerment including quantitative and qualitative approaches. The authors hypothesis is that this program may influence women empowerment positively in five ways: increasing the resources they manage and granting them power to decide over those resources, raising their self-esteem and confidence; offering education alternatives in mother-child healthcare; favoring the creation of networks where beneficiaries may exchange their experiences; and promoting girls' education which will allow women's achievements in the future. Interesting contributions of this research show that decision-making patterns concerning do not depend on being a CCT beneficiary, they depend on the degree of education of husband and wife, on whether she worked before the marriage and on the language of both. However, over time, the probability that woman decides on the use of the additional income increases but the magnitude of the impacts is still limited.

Another study of the impact of *Oportunidades* on women's empowerment at a qualitative level is that of Escobar et al (2008). The authors find evidence that the program raises their self-esteem and increases their income and consumption. Furthermore, given that the cash transfer represents a significant percentage of the total household expenses⁴, these resources will enable them to improve their autonomy and negotiation power and in some cases even enabling women to invest in small businesses.

³Empowerment measurement is not much developed in Peru. Most existing studies addressing this topic do so from the perspective of microfinances (Field and Torero 2002, Cabala 2009, Pait and Contreras 2009).

⁴In Mexico, the cash transfer represents 20% of total expenses

In turn, participating in the different activities the program offers enables women to increase their presence in the community, which may impact their empowerment. Adato et al (2000) sustain that participating in the program activities generates solidarity ties and self-esteem due to the interaction with other mothers, making it possible for them to create new social networks. Escobar et al (2008) strengthen this idea, pointing out that women appreciate the opportunity to enter new social spaces despite their multiple tasks and the program meetings open an opportunity to create social networks empowering women.

However, the existing literature also shows another perspective of the effects of these programs on women. When assigning program co-responsibilities to the women, the design envisages two relevant, yet largely criticized unintended results. In the first place, benefit is mainly for mothers who generally are not economically active, strengthening the traditional gender roles within the family and, in the long term, reducing women's autonomy. Gender equality stays out of the program's objectives, as it is implicitly established that taking care of the children is the sole responsibility of women (Adato et al 2000, Brandshaw and Quiroz Viquez 2008). In second place, the program also underestimates women's available time (Molyneux 2008, Brandshaw and Quiroz Viquez 2008) given that co-responsibilities require significant investment of time.

Other authors also set out for discussion the effects of the increased negotiation power of the women within the household. Generating own resources may affect the status of women at home, but transfers are not expected to have the same effect. Having greater influence only on decision-making regarding the use of the transfer does not alter the foundations of women's subordination (Molyneux 2008, Handa et al 2008). Furthermore, since the program money is managed by the women, there is the possibility that problems may arise in the authority relation in patriarchal homes, which will not only generate conflict, but may even increase the probability that women suffer domestic violence (Brandshaw and Quiroz Viquez 2008, Espinoza 2006, Maldonado et al 2005).

2.3 Juntos and Women Empowerment

Juntos, the CCT of Peru, was created in April 2005 and benefits homes in situation of exclusion and poverty with children under 19 –or who may have not completed secondary education⁵ and pregnant women–. From its creation up to December 2012, *Juntos* transferred the cash incentive to 619 553 households in 1011 districts of the country becoming one of the most important social programs of Peru. In the short term, the primary objective of *Juntos* is to reduce poverty by increasing the beneficiary families' income, while in the long term the goal is to stop the inter-generation transmission of poverty through the development of human capital⁶. The cash is given to the mothers, who may use it freely; however, the transfer is conditioned to the fulfillment of conditionalities on their children education and health. The program has been the subject of many studies (Jaramillo and Sánchez 2012, Perova and Vakis 2012, Díaz et al 2009, Vargas and Salazar 2009, Huber et al 2009, etc.). However, little has been researched about its effects on women's empowerment.

Perova (2010) evaluates the impact of *Juntos* on domestic violence. The author explains that violence against women may, on the one hand, increase, if the husband wants to get hold of the new income received by the woman; on the other hand, it may reduce violence, as the woman acquires more negotiation power and autonomy due to the new income. The research finds that the cash transfers reduce domestic violence and that

⁵As from 2012; prior to that only children under 14 were considered, or until they completed primary education

⁶ The program gives the equivalent of 1\$ per day to meet the international criteria for people in extreme poverty living with less than a dollar per day.

this impact is strengthened if the woman receives additional income from paid labor. Then, Ritter (2014) uses ENDES database to simulate a *Differences in Differences* model to analyze the effect of Juntos on women's empowerment, also focusing on domestic violence. The study finds that the program has reduced the emotional and physical violence against women but it has not found effects on sexual violence. In the long term, the effect on emotional violence disappears but the effect on physical violence is reinforced by the program. More recently, Garcia (2015) researched the impact of Juntos on the consumption of merit and demerit goods of a household, considering also a proxy of women empowerment as a possible determinant of that impact. The study found a positive impact of the program in the consumption of merit goods –such as food, children's clothing, education and healthcare– of the household. It also found that this result is reinforced in households with more empowered women, proxied by the comparison of the years of education of the women and the years of education of the spouse.

There are also qualitative studies that analyze different impacts of *Juntos* (Streuli 2010, Huber et al 2009, Correa and Roopnaraine 2014) and find some indirect evidence of its effects on women empowerment, in aspects such as raising individual self-esteem and recognition within the community. For example, Jones et al. (2007) find evidence of greater women empowerment, associated to their financial independence, as well as the change in traditional gender roles, given that the husbands share a greater proportion of housework and child care activities in order to comply with conditions of the program. Along a similar line, Strueli (2010) finds that while *Juntos* has a positive effect on women's self-esteem, it also may be a source of conflict within the household because of the change of attitudes it may generate on women that clashes with their traditional roles, even more considering that the very design of the program rests upon the traditional division of women's tasks. In general, while the qualitative studies analyze women empowerment indirectly, they find that *Juntos* does contribute, although in a very limited way, to the empowerment of women at home.⁷

3 Methodology

3.1 Quantitative Methodology

3.1.1 Data

For the quantitative approach, we use available survey data from the *Peruvian Demographic and Family Health Survey (ENDES)* and from the *Young Lives Study (YLS)*. The first database provides information associated to different aspects of women's empowerment relevant to the study, including variables concerning the use of money and who makes the spending decisions at home; variables regarding women's freedom of movement related to autonomy to make decisions regarding visits to relatives, friends and others; and information on gender ideology, such as opinions on sexuality, rights and domestic violence. It should be noted it is possible to propose an empirical strategy in order to identify the impacts of the program using ENDES because it provides information on households affiliated to the *Juntos* program annually since 2008. There is also detailed information regarding household characteristics, such as access to basic utilities –water, sanitation and electricity– holding of assets, type of fuel used for cooking, type of house construction materials, education of the household members and others.⁸

⁷Huber et al. (2009) and Díaz et al. (2009).

⁸ In the ENDES database, the treatment variable has been collected only for women who have in their care at least one child under the age of 5; thus, the evaluation would be delimited by this characteristic

The second database we used is the YLS for Peru; this source of data offers other advantages for the analysis. First, it has information that allows estimating indicators of other aspects of women’s empowerment, in particular, we used variable related to life perceptions, agency and self-esteem aspects. The YLS designed valid tools to obtain such information by applying assessment scales to different situations presented to the interviewed, commonly used in psychology. The survey also includes information concerning socio-demographic characteristics of the households, which will be used to simulate the focalization process of *Juntos* program. The second advantage of using YLS is the longitudinal data for three different periods, before and after the intervention of *Juntos* program. This longitudinal data consists of two age cohorts and of three different rounds: 2002, 2006 and 2009⁹. For the third round, there is information available regarding current participation in *Juntos* and information on when the household became beneficiary of the program. For this research we use the three rounds of the younger cohort¹⁰.

3.1.2 Women Empowerment Indicators

For the purposes of this study, we focus measurement of women’s empowerment on the individual and household level, leaving aside political and community aspects. Based mainly on Malhotra, Cacique and Vera Tudela studies, we focused on decisions concerning control of resources (economic empowerment), gender roles and ideology (perceptions of rights and rejection of male domination situations) and perception of life, agency and self-esteem. Table 1 shows the selected empowerment dimensions and variables available, according to the ENDES and the YLS databases, respectively.

Table 1: Women’s empowerment measurement

Dimensions	Measurement
Control and decision on household resources	Person who decides about: <ul style="list-style-type: none"> • Major household purchases. • Purchases for everyday needs at home. • How the money earned by the husband is spent. Source: ENDES
Gender ideology	<ul style="list-style-type: none"> • Agrees or not with different arguments that justify physical violence episodes against women within their homes • The husband exercised some kind of emotional, physical or sexual violence against the wife. • Frequency with which the husband asks for the opinion of the wife for different home matters. • Frequency with which the husband respects the wife's wishes • Frequency with which the husband respects the wife's rights. Source: ENDES
Autonomy or freedom of movement	<ul style="list-style-type: none"> • Wife states that her spouse prevents her from visiting her friends. • Wife states that spouse tries to limit family visits • Wife states that spouse always insists on knowing where she goes at all times. Source: ENDES
Perception of life, agency and self-esteem	Women agree or not with the following assertions: <ul style="list-style-type: none"> • If I try hard, I can do better in life • I like making plans for the future

⁹ In the first round, children of younger cohort were 6 to 17 months old and those in the older cohort were 7 to 8 years old. In the second round, the younger cohort was 4 to 5 years old and the older cohort, 11 to 12 years old. In the third round, the younger cohort was 7 to 8 years old and the older cohort, 14 to 15 years old.

¹⁰ In the case of the YLS database, the sample was selected through a two-stage procedure. In the first stage, 20 districts were randomly chosen excluding the 5% richest districts in the country; and, in the second stage, an area of the district was selected at random and enumerators looked for households that had at least one child aged 1 to 2 years in 2002.

-
- If my child gets really sick I can do LITTLE to help him/her get better
 - I am proud to show my friends and other visitors where I live.
 - I am ashamed of my clothes
 - The work I do makes me feel proud.
 - I feel proud of my children

Perception of living conditions of the interviewee in general, currently and four years into the future, in a scale from 0 to 9.

Source: YLS survey

After identifying the variables associated to women's empowerment, with ENDES data we construct indicators using Factor Analysis techniques through the Principal Components method. This technique is a multivariate statistical tool commonly used for the construction of indexes, as it allows synthesizing information through the correlations among the variables in order to obtain factors that account for their total variance as a whole (Howell 2010, Cuadras 2014). The factors or principal components will be a linear combination of the original variables and will remain independent from each other. Then, the values of each empowerment indicator were standardized turning them into variables to be distributed between 0 and 1.

Using the statistical technique described above, we obtain a factor related to decision making on household resources that explain between 50% and 55% of the variance for each year analyzed; and, the factor related to freedom of movement explains approximately 57% and 60% of the variance each year. The last empowerment indicator based in ENDES data is constructed using 12 different variables related to gender ideology listed in **¡Error! No se encuentra el origen de la referencia..** The application of factor analysis allows to clearly identifying three factors, altogether these last three factors represent 50% of the accumulated variance each year.

On the other hand, using YLS survey data, we construct empowerment indicators for agency, self-esteem and perception of life dimension using variables presented in **¡Error! No se encuentra el origen de la referencia..** Due to the fact that the rating scale was expanded from 3 to 5 options in Round 3 for questions related to agency and self-esteem, we construct the indicators using arithmetic averages for each dimension. Then, the values of agency and self-esteem indicators were standardized between values of 0 and 1. In addition, the perception of live involves two variables, the first one related to the perception of present life and the second one related to the perception of the future opportunities.

3.1.3 Empirical Strategy

Given that the program intervention has not followed an experimental design, it is necessary to use quasi-experimental techniques to identify the effects of the program on the empowerment indicators as has been done by previous studies on the impacts of *Juntos* –such as Perova and Vakis (2012) Jaramillo and Sánchez (2012) Escobal and Benites (2012) and Perova (2010) – using similar or the same databases.¹¹

The main limitation to perform an optimal impact assessment for the *Juntos* program is the difficulty to identify an adequate control group. The program's coverage plan prioritized in the first stage the selection of the poorest districts and households in the country. Nevertheless, the intervention did not cover the entire target population due to delays in the implementation and budget limitations¹², making it possible to establish a sample that allows the identification of a control group.

¹¹Perova and Vakis (2012) use the ENAHO; Perova (2010) and Jaramillo and Sánchez (2012) the ENDES; and Escobal and Benites (2012) the YLS household survey.

¹²Perova and Vakis (2009) state that as of the end of 2008, the *Juntos* program had covered 638 districts out of the 880 identified as the poorest by the National Strategy *Crecer..*

We used the annual information available from ENDES to construct a data pool from 2004 to 2012. To compare, according to the observable characteristics, the results of empowerment indicators of the women of the households affiliated to *Juntos* to women belonging to potentially beneficiary households. Then, a generalized Difference-in-Differences regression is estimated (Angrist and Pischke 2008, Khandker et al 2010). This quasi-experimental strategy enables evaluating the program controlling for individual characteristics, as well as data of the household and of the districts that simulate the program targeting process. Below is the equation that will guide the analysis:

$$y_{idt} = \alpha_d + \gamma_t + \beta J_{idt} + \delta_1 S_{idt} + \delta_2 X_{idt} + \mu_{idt} \quad (01)$$

Where $i = 1, \dots, N$ represents the observer unit (women); $d = 1, \dots, D$ represents the sample districts; $t = 1, \dots, T$ is the observation timeframe.

The J_{idt} variable is a dichotomous variable that takes the value of 1 if the observation unit of district d receives the benefits of the program during timeframe t . Therefore, the effect of the program on women's empowerment indicators will be contained in parameter β . Following the methodology proposed, it was necessary to take into account the targeting strategy of *Juntos* in order to control the model for household characteristics relevant to the program. To do this, the model estimation includes a score S_{idt} that shows the probability that the household will be selected for *Juntos*. A logistic model is used to construct this score, which includes district variables such as poverty, malnutrition and political violence, as well as socio-demographic variables at household level that are considered in the focalization process of the program. X_{idt} is a vector of control variables that contains individual characteristics of the women and their relationship with their spouse, including educational level, age, number of children, access to communications means, type of work, etc. Since it is probable that these control variables are correlated with the targeting score of *Juntos*, we checked the correlation between control variables and the targeting score of *Juntos* in order to avoid potential endogeneity problems. Also, the model includes fixed effects at geographical level (parameter α_d) and time level (parameter γ_t). Finally, we are aware that estimation residuals could be correlated within each geographical unit, in order to mitigate this potential inconvenience (underestimation of standard errors) calculations are made with the standard errors clustered at district level, so that the model assumes that they are independent between geographical units, but dependent within each district (Bertrand et al 2003, Angrist and Pischke 2008).

To test the robustness of the previous methodology, we propose to also estimate the model previously described but assigning the treatment at district level (instead of household level). This approach assumes that the presence of the program may generate changes in the behavior of the non-beneficiary population due to externalities of the beneficiaries themselves, or due to the presence of program officials in the areas. This methodology has been applied in Perova (2010) when evaluating the impact of *Juntos* on domestic violence.

To complement the first strategy, using the YLS database, it is possible to evaluate the differences in the empowerment result variables by combining the Propensity Score Matching (PSM) technique –that emulates the targeting process of *Juntos*, to establish a treatment group and a control group (Abadie and Imbens 2006)– together with the Double Difference technique that uses panel data to obtain estimators to measure the effect of the program comparing the variations of the means of the assigned groups before and after the program treatment (Angrist and Pischke 2008). This methodology has been applied by Escobal and Benites (2012).

The equation that measures the effect of the program is shown below:

$$y_i = \alpha + \gamma J_i + \theta T_i + \beta T_i \cdot J_i + \mu_i \quad (02)$$

Where $i = 1, \dots, N$ represents the observed unit (women). J_i is a dichotomous variable that takes the value of 1 if the woman belongs to the group being benefited by the program and 0 if it is otherwise. T_i is a dichotomous variable that takes the value of 1 when the observation belongs to the timeframe after treatment and 0 in the initial period. The effect of the program on the empowerment indicator is captured by parameter β , the effect results from the interaction of treatment and time variables. Parameter α represents a constant and μ_i represents the term of error.

3.2 Qualitative Methodology

Given the fact the women's empowerment is a complex process, this research includes qualitative techniques to identify the mechanisms behind the women's empowerment process and to complement the quantitative study findings, providing a more complete vision of the impact of *Juntos* on women's empowerment (Denzin 1978, Greene et al 1989).

In the first stage, a pilot was performed in May of 2014 as a pilot in two areas of the department of Ayacucho. This pilot fieldwork included four focus groups, two in each locality, and eight in-depth interviews, four to program beneficiaries, two to health centers representatives and two to local *Juntos* program representatives. The results show that it was possible to identify some empowerment effects on women beneficiaries in the districts selected, but it is difficult to find these results because of the reluctance of women to share their personal experiences. These findings were used to improve the design and implementation of the main fieldwork.

The principal fieldwork was performed in rural areas of selected districts in five different regions (La Libertad, Piura, Junín, Huánuco and Apurímac), to complement the findings of quantitative methodology. Using the results of the quantitative analysis, districts with high and low empowerment indices were identified, considering, as well, other additional criteria to guarantee heterogeneity in the selection of districts, such the type of region –coast or mountains areas–, the location of the department –south, central or northern of Peru–, and the poverty level.

The qualitative methodological strategy consists in applying semi-structured in-depth interviews to beneficiaries (36), to partners of beneficiaries (12) and other local actors, as managers of the program *Juntos* (14) and community leaders (14), and six focus groups of beneficiaries in the districts selected. Qualitative fieldwork was conducted between December 2014 and February 2015. In order to identify perceptions from several dimensions, the criteria followed to select the sample for interviews included: with partners, with and without paid job, different ages, different number of children, and with different timeframes of being part of *Juntos*. The focus groups were small so as to obtain a trustful environment, adequate to discuss controversial issues –such as gender roles, domestic violence and others–.

4 Results

4.1 Quantitative Results

Following the methodology described before, in this section we present the results of the impact of the *Juntos* program on women’s empowerment indicators. According to the results in Table , we appreciate that, in average, the intervention has a positive impact on women empowerment in the indicator of decisions power regarding home resources. Thus, it is evidenced that the additional income amount granted by the program increases women’s power on the use of household resources (including the transfer itself). In order to control for households socio economic characteristics, the targeting score variable is included. A higher targeting score reflects a poorer household and thus its effect on women empowerment is significant and negative as expected.

In order to strengthen the interpretation of the results of the model, it is relevant to evaluate the program effects on each of the variables that compose this economic empowerment indicator, to make sure that the effect is not only significant in minor decisions. As shown in Table 2, the program effect is maintained in each type of decision; in fact, the magnitude of the effect is slightly higher in the decisions taken on major household purchases. This result allows us to sustain that managing the cash transfer grants women a greater negotiation power for important decisions on household resources and even on decisions regarding money earned by the partner. These results would indicate that by generating a source of additional income managed by women, the program strengthens their role in the management of household resources beyond decisions related to the traditional gender roles.

We can also observe that some control variables included in the model play a relevant role as expected¹³. Thus, women’s age and education have a positive and significant impact on their empowerment level. In turn, and in line with the theory, many variables associated to family composition, ethnicity and working activity play a significant role on women’s empowerment. Results show that if the partner lives at home, if women are in charge of children under 14 years old, if their main activity consists in independent farming¹⁴and if their native language is an indigenous language, women empowerment is lower. Access to paid employment and being the household head are positively associated to empowerment. Many of these results relate to the approach to the empowerment model proposed by Vera Tudela (2010) and confirm his findings.

It is interesting to note that in the case of estimations for each indicator regarding decisions separately on household resources, access to information and native language are recurrently related to higher empowerment level. These results reflect the importance of the environment, knowledge and of the access to information sources to increase women negotiation capacity at home and thus improve their empowerment. Likewise, this result keeps a close relationship with women’s linguistic characteristics due to the fact that when they only speak an indigenous language, they probably have more limitations to access the massive communications media.

Table 2: Impact of *Juntos* on women economic empowerment indicators

Dependent variable: Decisions of household resources	Empowerment indicator	Decisions on making large household purchases	Decisions on making household daily purchases	Deciding what to do with money partner earns
Juntos = 1	0.0256*** (0.007)	0.0601** (0.020)	0.0469* (0.022)	0.0491** (0.018)
Targeting score	-0.0534*** (0.016)	-0.1360*** (0.040)	-0.0958* (0.047)	-0.0876* (0.038)

¹³ Complete results including control variables are included in the **¡Error! No se encuentra el origen de la referencia.** in the Annex.

¹⁴This variable identifies women whose main activity is independent farming, as this characteristic is predominant in our sample. Women mostly dedicated to sales and, to a lesser extent, domestic activities, qualified and non-qualified handicrafts, professional or technical activities and service activities integrate the remaining group.

N	12768	13512	13499	12808
R²	0.1473	0.0987	0.1052	0.0593

Standard errors in parentheses. Each column corresponds to a different regression and includes geographical and year fixed effects. *** p<0.01, **<0.05, *p<0.1

Table 3 shows results for the model proposed for the freedom of movement indicators. Unlike the results of the previous empowerment indicator model, the *Juntos* program intervention shows positive association with the freedom of movement indicator, but it is not significant. This result persists when evaluating program effects against each variable integrating the proposed indicator for this dimension. Some control variables of the model are associated to the dependent variable. The fact that the spouse consumes alcohol and becomes frequently intoxicated seems to be a determining factor negatively associated to women’s empowerment level. Likewise, it is also observed that education plays a relevant role to increase their right to move freely. When analyzing the model separately by the variables integrating the empowerment indicator, it is noted decisions regarding family visits are not related to the program, but to women’s characteristics, such as age, education and education differences with their partners. Also, if the woman is the household head, the age she had when she had her first child and the number of children under 14 in her care, if her partner gets frequently intoxicated, and if she has access to communication media such as radio and newspapers are significant determinants. Estimations regarding the other three variables integrating this indicator strengthen several of the previous results; but is worth noting that the fact that their partner gets intoxicated is strongly associated to each freedom of movement variable, where women evidence less capacity to exercise their freedom of movement.

Table 3: Impact of *Juntos* on empowerment indicator of freedom of movement

Dependent variable: freedom of movement	Empowerment indicator	Partner does not permit her to meet her friends	Partner tries to limit her contact with family	Partner insists on knowing where woman is all the time
<i>Juntos</i>=1	0.0039 (0.008)	0.0043 (0.010)	0.0063 (0.093)	-0.0014 (0.015)
Targeting score	0.0155 (0.015)	0.0231 (0.017)	0.0123 (0.016)	0.0033 (0.030)
N	12145	12156	12157	12163
R²	0.0522	0.0369	0.0379	0.033

Standard errors in parentheses. Each column corresponds to a different regression and includes geographical and year fixed effects. *** p<0.01, **<0.05, *p<0.1

The three tables below –Table 4, Table 5 and Table – show the results for gender ideology empowerment indicators. Three indicators integrate this dimension: justification for violence; respect for women’s opinion, desires and rights; and violence episodes. The econometric estimations for these three indicators show a positive though not significant effect, regarding women empowerment levels. However, results are different when they are disaggregated by the variables integrating the index. In the case of variables regarding respect for women’s opinions and rights we do find significant effects of the program, which allows us to sustain that possibly, participation in activities involving the program and management of additional resources enables the development of women capacity to enforce their opinions and rights at home. This finding should be strongly associated to the reduction of violence episodes; however, the results regarding such variables, while positive, do not show a significant association to the program intervention. Perova (2010) uses a different specification of domestic violence and shows that violence incidence was reduced due to the program intervention.

Table 4: Impact of *Juntos* on empowerment indicator of gender ideology (reasons that justified violence)

Dependent variable: gender ideology (reasons that justify violence)	Empowerment indicator	Woman goes out without permission	Woman neglects the children	Woman argues with partner	Woman refuses to have sexual relations	Woman burns the food
Juntos=1	0.0042 (0.006)	0.0012 (0.005)	-0.0031 (0.006)	0.0019 (0.003)	-0.0029 (0.004)	0.0003 (0.004)
Targeting score	0.0074 (0.011)	0.0021 (0.009)	0.0276* (0.013)	0.0024 (0.007)	-0.0031 (0.006)	0.0009 (0.007)
N	11413	11555	11539	11545	11514	11550
R²	0.2260	0.0100	0.0215	0.0130	0.0102	0.0089

Standard errors in parentheses. Each column corresponds to a different regression and includes geographical and year fixed effects. *** p<0.01, **<0.05, *p<0.1

Table 5: Impact of *Juntos* on empowerment indicator of gender ideology (opinions, desires and rights)

Dependent variable: gender ideology (opinions, desires and rights)	Empowerment indicator	Partner considers her opinions	Partner respects her desires	Partner respects her rights
Juntos=1	0.0036 (0.008)	0.0377* (0.017)	0.0286 (0.015)	0.0370* (0.015)
Targeting score	0.0308** (0.012)	0.0257 (0.030)	0.0567* (0.026)	0.0554* (0.025)
N	11413	12171	12171	12171
R²	0.1585	0.0610	0.0662	0.0676

Standard errors in parentheses. Each column corresponds to a different regression and includes geographical and year fixed effects. *** p<0.01, **<0.05, *p<0.1

Table 6: Impact of *Juntos* on empowerment indicator of gender ideology (violence episodes)

Dependent variable: gender ideology (violence episodes)	Empowerment indicator	Emotional violence	Less severe violence	Severe violence	Sexual violence
Juntos=1	0.0074 (0.006)	0.0209 (0.012)	0.0012 (0.014)	-0.0026 (0.011)	-0.0048 (0.007)
Targeting score	0.0297** (0.010)	0.0496* (0.022)	0.0867*** (0.023)	0.0251 (0.016)	0.0156 (0.013)
N	11413	12171	12171	12171	12171
R²	0.2262	0.0875	0.0963	0.0962	0.0591

Standard errors in parentheses. Each column corresponds to a different regression and includes geographical and year fixed effects. *** p<0.01, **<0.05, *p<0.1

We also re estimate the regressions using the same models for all empowerment indicators constructed with ENDES database, but using treatment assignment at district level instead of household level. The results of this exercise showed similar magnitude of coefficients in most of the variables involved in each model, however, the treatment variable loses statistical significance in all cases. This result indicate that the effects of *Juntos* only involve mothers who receive the cash transfers and there are not indirect effects on other women who do not belong to the program even though they might be exposed to a common environment in which *Juntos* activities are displayed.

In addition, women empowerment indicators constructed with variables of YLS survey were used to measure the impact of *Juntos*, specifically agency, self esteem and perception of life. In this case, we evaluated the program effects using a double difference model, making use of this sample's panel data. Results are presented for the arithmetic difference of the standardized averages of a group of empowerment variables between

Round 2 and Round 3. The results presented here are the ones using Kernel matching, which has a lower variance (Khandker et al 2010) and has the advantage of making it possible to have a larger number of observations available for the means test presented from the regression. From the results presented in Table 7, we observe that the program has not significant effects on the change in the agency and self esteem empowerment indicators but it does have a significant effect on the change in perception of present life. As we can appreciate, the program has a positive and strongly significant effect in the perception of present life indicator, although not in the perception of future life.

Table 7: Impact of *Juntos* on the change of empowerment indicators

Dependent variable:	Change in the standardized average of agency	Change in the standardized average of self esteem	Change in perception of present life	Change in perception of future life
Juntos	-0.0206 (0.0310)	-0.0216 (0.0499)	0.514* (0.312)	0.425 (0.345)
Constant	0.194*** (0.0256)	0.0794* (0.0462)	0.299 (0.259)	0.344 (0.294)
Observations	616	618	619	599
R-squared	0.002	0.001	0.011	0.007

Standard errors in parentheses. *** p<0.01, **<0.05, *p<0.1

It is of key importance to distinguish the different timeframes that the *Juntos* beneficiaries since the program's impact is expected to differ on the beneficiaries that have been in the program longer than the ones that have recently been incorporated (Perova and Vakis 2012, Jaramillo and Sanchez 2012). Table presents the results of the means test for the different timeframes of the beneficiaries¹⁵ and shows the results for the change in agency and self esteem considering the intensity of the program. We can observe that the program has no significant effect on women agency, even when they have been beneficiaries for a longer time. Nevertheless, in the case of the self esteem indicator, the results show a positive and significant effect for the beneficiaries with more than three years in the program. Hence, it appears that *Juntos* do have an effect on how beneficiaries feel about themselves, their jobs, and their children but only after some time. The estimates of the *Juntos* impact considering its intensity in the change of perception of present life and future life are also shown in Table . There we can appreciate the increasing effect that the program has in the perception of beneficiaries' present life according to its intensity, i.e. the longer the time in *Juntos* the highest and more significant its impact on empowerment. The change in the perception of future life follows a similar pattern, but in this case results are only significant when women have for more than three years in *Juntos*.

Table 8: Impact of *Juntos* on the change of empowerment indicators

Dependent variable:	Change in the standardized average of agency	Change in the standardized average of self esteem	Change in perception of present life	Change in perception of future life
Not in <i>Juntos</i>	-0.0455 (0.0410)	-0.0371 (0.0613)	0.960* (0.544)	1.272* (0.651)
<i>Juntos</i> for a year	-0.00515 (0.0374)	-0.0379 (0.0561)	0.189 (0.369)	0.193 (0.406)
<i>Juntos</i> for 2 years	-0.0270	-0.00572	0.669* (0.369)	0.391 (0.406)

¹⁵The categories are: not in *Juntos* or less than and year, more than a year but less than two, more than two years but less than three, and more than three years following the methodology by Perova and Vakis (2012).

	(0.0380)	(0.0539)	(0.370)	(0.391)
Juntos for 3 years	-0.0270	0.254***	1.701***	0.656**
	(0.0256)	(0.0463)	(0.260)	(0.295)
Constant	0.194***	0.0794*	0.299	0.344
	(0.0256)	(0.0463)	(0.260)	(0.295)
Observations	616	618	619	599
R-squared	0.003	0.005	0.018	0.015

Standard errors in parentheses. *** p<0.01, **<0.05, *p<0.1

Results presented in this section allow us to conclude that the effect of the *Juntos* program differs according to each empowerment dimension. Thus, we find the program is improving women's negotiation capacity, as they may be more involved in decisions concerning household resources but we find that the program has no significant impact on freedom of movement, gender ideology and agency aspects, probably because the program perspective emphasizes the improvement of children's quality of life and is not accompanied by a complementary strategy, focused on women welfare. Nevertheless, regarding their self esteem and life perception, there seems to be a positive effect, particularly after some time with the program. It should also be noted that many of the variables that reflect characteristics of women and their marital life are associated to the empowerment level in many aspects, such as women's education level, their age, the number of children and the fact that their partners get intoxicated frequently. Some explanations for these results and factors behind them can be found in the analysis of the qualitative fieldwork results in the next sub section.

4.2 Qualitative Results

The purpose of the qualitative fieldwork was to identify possible changes in the different empowerment aspects of women as a result of the intervention of the *Juntos* program and explore the mechanisms behind such processes, in order to complement the quantitative results. The objective was also to better identify the relevant factors that influence empowerment of women beneficiaries, considering not only variables such as age of women, education level, work activity, relationship with their partners, but other more complex such as cultural issues, community factors, relationship with program representatives, among others. The results presented below correspond to fieldwork conducted through December 2014 to February 2015 in six localities of five departments where the program has intervened, as described in the methodology section.

The findings of the fieldwork allow us to take into account some relevant aspects of women empowerment that complement the previous results and that the quantitative approach is unable to identify, i.e. variables that cannot be captured by the survey databases. In particular, we find that the program's local implementation and performance has a significant effect on the different empowerment dimensions. In what follows, we analyze the channels through which *Juntos* affects the different women empowerment dimensions.

First, regarding economic empowerment, we observe that the transfer that women receive from the program does contribute to greater bargaining power, but this effect is mostly limited to how to spend the resources at the household and not in terms of economic or investment activities. The transfer represents a steady and high income for women who gain autonomy to make decisions. This finding corroborates the quantitative results concerning economic empowerment indicator. However, one limitation of the economic empowerment process is the program's local institutionalism and performance. The lack of clarity about the program objectives and the roles and responsibilities of the families, lead to organizations and individuals related to the program –such as health centers representatives, community mayors and program managers– to demand the beneficiaries to participate or invest in activities that are not part of the program; limiting women decisions, for

example regarding the investments that many women would like to implement. In particular, many women express that they fear being left out of the program for not having expended all of the transfer money specifically for educational or nutritional purposes; also, they feel that the money is for expending and not for savings. Another limitation for their economic empowerment is the lack of labor opportunities, for which they strongly ask for more technical and productive training sessions. Even though women feel they have limited in their decisions by program representatives, it is also common for women to save money and to invest in animals or start small businesses. Thus, they express that they see the transfer as an opportunity to empower themselves economically and increase their monthly household income.

Second, the changes in traditional roles within the household are an aspect of women empowerment not captured by the quantitative approach. In the qualitative work, we explore the mechanisms behind the empowerment process inside the household. In most cases, household chores are almost exclusively women's responsibility, while spouses dedicate their time to agricultural activities and other paid work outside the household. This division of labor is accepted because it is assumed as natural and functional to their life conditions. Although traditional household roles have not changed, *Juntos* has contributed to women empowerment inside the household by providing them tools to gain knowledge and by providing economic resources to better perform in their traditional roles. Because of the program, women feel more informed on their role as a caregiver for their children. Likewise, women do not complain or feel overwhelmed by the conditionalities, on the contrary, they express their wish for more meetings and training sessions.

Third, understanding the process to reduce violence events is a difficult task to achieve in the quantitative approach where results regarding gender ideology were not conclusive in finding a significant effect of the program. However, we did find some partial effects of the program on the reduction of gender violence in the qualitative approach. In some cases, program authorities play an important role by organizing meetings to discuss this type of problems with women beneficiaries, and even, in some cases they threat to suspend the family from the program if they find recurrent cases of domestic violence. On the other hand, women and men have gained consciousness about women's rights; this finding bears out the quantitative result for respect for women's opinion, desires and rights indicating a significant positive effect of *Juntos*. Women declare they now know better their rights; hence women said that now they are less scared to confront their partners. This appears to be a partial result because violence episodes inside the household are not usually reported due to the generalized tolerance to violence. Even so, this proves to be a window of opportunity for the program where a more direct impact can be achieved and women themselves ask for more meetings about this issue.

Finally, regarding women self-esteem, it is observed that the program has a positive impact. Most women have high self-esteem as a consequence of their participation in the program: they feel proud of themselves, of how they dress and live and of having their children healthy and attending school. They have more self-confidence and optimism regarding their future, and feel more respected within the household and the community. This reinforces the quantitative findings of a positive impact in self-esteem particularly after belonging for more than three years in the program. The inconclusive results on women self-esteem without considering the intensity of the program may be explained by the fact that some local actors related to the program treat beneficiaries condescendingly i.e. when bank officials mistreat women or health or school representatives patronize them even threatening to not pay the transfer. In many cases these authorities mistrusted the capacity and ability of women to understand the program's objectives and to fulfill the responsibilities accordingly and thus manage the program in a vertical manner, being patronizing with beneficiaries and hampering the potential program empowerment effects.

Also, beneficiaries consider that the program has promoted participation in community activities. Women now have more freedom and possibilities to participate in social events and to attend community and program

events, where they meet and share experiences with other women. They value these meetings because they learn about their rights, to defend themselves and speak out. Program authorities also perceive this; they explain that, at the beginning of the program, women were quiet and unexpressive and that they have witnessed the process of empowerment in which women are more expressive and know their rights better. Women believe the program has the potential to continue to improve their quality of life through more meetings and training.

In general, while the program objective does not envisage strengthen women empowerment, results of qualitative fieldwork confirms the hypothesis that the *Juntos* program has effects empowering their beneficiaries in certain dimensions, particularly regarding decisions on resources within the household, on self-esteem and greater participation in the community.

5 Conclusions

Research findings show a positive impact of *Juntos* on some dimensions of women's empowerment. It is important to keep in mind that the program objective is the welfare of children to stop intergenerational poverty, in this sense, women –main recipient of the transfer and responsible for compliance with the program conditionalities– although play an important role, are not part of the program focus. Therefore, the process of women empowerment as a result of the program intervention, involves identifying side effects from which we may draw policy recommendations to better exploit the benefits or correct the damage of these side effects of the program. It is also important to keep in mind that *Juntos* intervention has not followed an experimental design and, to achieve the objectives of the research, it was necessary to use quasi-experimental techniques to identify the effects of the program, and complement these quantitative results with a qualitative approach; the conclusions below are based on findings with these methodologies.

Results of the quantitative estimates show that the main effect of *Juntos* is greater bargaining power for women, allowing them to become more involved in decisions on how to allocate household resources, which includes decisions regarding major household purchases and even resources earned by the partner. This result is reinforced by the findings of qualitative approach, which shows significant changes have occurred in economic empowerment of women, they have a greater participation and a much active role on resource management and decision making within the household, which at the same time, increase their level of personal security and autonomy.

Also, results of the quantitative approach find improvements in self-esteem and life perception as an effect of *Juntos* when considering intensity of the program over time. This result is strongly reinforced by the qualitative approach, which presents women who feel better about themselves and their future, and more integrated in the community. The improvement in self-esteem and autonomy occurs also because of women participation in training sessions and informal socialization where previously did not had access to; participation lead women to go out of the family sphere, which they were limited before, and to exchange ideas, information and knowledge which are then incorporated into their daily lives. However, these improvements may be hampered in some cases by local performance of the program when authorities and organizations influence women into complying activities that are not part of the program. Negative effects may result of local management of the program in which vertical interaction between the government representatives and beneficiaries are reproduced; women appear as the passive subjects, who only receive benefits, conditions and instructions from the program. This type of relationship, with little participation and limited information, has negative effects on women empowerment.

Finally, quantitative estimations have not identified significant impacts of *Juntos* on other empowerment dimensions, in particular freedom of movement and gender ideology. Nevertheless, the findings in the qualitative approach reveal that the program has had some positive impact in freedom of movement, since now women are able to attend to program and community meetings. Qualitative results are uncertain in gender ideology in which traditional roles of labor pose a division of labor within the household; women are responsible for domestic labor and childcare. As for gender violence, there may be some positive effect on women rights, but domestic violence it is still widely spread in the localities of *Juntos* and it does not appear to be any tendency to a real significant reduction.

References

- Abadie A. y G. Imbens (2006). "Large sample properties of matching estimators for average treatment effects". *Econometrical* 74(1), 235-267.
- Adato, M.; B. De la Briere, D. Mindex y A. Quisumbing (2000). "The impact of Progresa on Women's status and intrahousehold relations: A final report". Informe presentado a Conprogesa. International Food Policy Research Institute. Washington, D. C. Mimeo.
- Adato, M. y J. Hoddinott (2007). "Conditional Cash Transfers in Latin America". Baltimore: Johns Hopkins University Press for the International Food Policy Research Institute.
- Angrist, J. y J. Pischke (2008). "Mostly Harmless Econometrics: An Empiricist's Companion United Kingdom: Princeton University Press.
- Bertrand, M.; E. Duflo y S. Mullainathan (2003). "How Much Should We Trust Difference-in-Difference Estimates". *The Quarterly Journal of Economics* 119, 249-275.
- Brandshaw, S. y A. Quiroz Viquez (2008). "Women beneficiaries or women bearing the cost? A gendered analysis of the Red de Protección Social in Nicaragua".
- Cacique, I. (2005). "Índices de empoderamiento femenino y su relación con la violencia de género". En R. Castro, R. Riquery y M. E. Medina (coordinadores). *Violencia de género en las parejas mexicanas. Resultados de la encuesta nacional sobre la dinámica de las relaciones en los hogares 2003*. México, 75-107.
- Cacique, I. (2008). "Multiplicidad del vínculo entre empoderamiento de la mujer y violencia de género". En *Cambio demográfico en Venezuela: oportunidades y retos para las políticas públicas*, 195-214.
- Cacique, I. (2010). "Factores de empoderamiento y protección de las mujeres contra la violencia". *Universidad Nacional Autónoma de México-Instituto de Investigaciones Sociales, Revista Mexicana de Investigaciones Sociales* 72, N.º 1: 37-71. México.
- Correa, N. y T. Roopnaraine (2014). "Pueblos indígenas & programas de transferencias condicionadas: estudio etnográfico sobre la implementación y los efectos socioculturales del Programa Juntos en seis comunidades andinas y amazónicas del Perú". Perú: BID.
- Cuadras, C. (2014). "Nuevos métodos de Análisis Multivariante". Barcelona: CMC Ediciones.
- Denzin, N. K. (1978). "The logic of naturalistic inquiry". En N. K. Denzin (Ed.). *Sociological methods: A Sourcebook*. Nueva York: McGraw-Hill.
- Escobar, J. y S. Benites (2012). "Algunos impactos del programa Juntos en el bienestar de los niños: evidencia basada en el estudio Niños del Milenio". *Boletín de Políticas Públicas sobre Infancia* N.º 5. Lima: GRADE.
- Escobar Latapí, A. y M. González de la Rocha (2008). "Girls, Mothers, and Poverty Reduction in Mexico: Evaluating Progresa-Oportunidades". En S. Razavi (Ed.). *The Gendered Impacts of Liberalization: Towards Embedded Liberalism?* Cap 10: 435-468, Nueva York.
- Espinoza, G. (2006). "La participación en la actividad económica de las mujeres de Oportunidades y su relación con las corresponsabilidades de este y otros programas sociales". México: Colegio de México.

- Fiszbein, A.; N. Schady, F. Ferreira, M. Grosh, N. Kelleher, P. Olinto y E. Skoufias (2009). "Conditional cash transfers: reducing present and future poverty". Policy Research Report. Washington D. C.: The World Bank.
- Frankenberg, E. y D. Thomas (2001). "Measuring Power. Food Consumption and Nutrition Division". Discussion Paper N.º 113. Washington D. C.: International Food Policy Research Institute.
- García, L. (2015). "The consumption of household goods, bargaining power, and their relationship with conditional cash transfer program in Peru". Working Paper N.º 397. Lima: Department of Economy - PUCP.
- Greene, J. C.; V. J. Caracelli y W. F. Graham (1989). "Towards a conceptual framework for mixed-method evaluation design". *Educational Evaluation and Policy Analysis*, 11.
- Hannda, S.; A. Peterman, B. Davis y M. Stampini (2008). "Opening up Pandora box: The effect of gender targeting and conditionality on household expending behavior in Mexico's Progresa Programme" (no publicado). Department of Public Policy, University of North Carolina at Chapel Hill.
- Howell, D. (2010). "Statistical Methods for Psychology". Estados Unidos: Wadsworth, 8.ª edición.
- Huber, L. et al (2009). "Programa Juntos: certezas y malentendidos en torno a las transferencias condicionadas, estudio de caso en seis distritos rurales del Perú". Lima: Instituto de Estudios Peruanos, UNFPA y Unicef
- Jaramillo, M. y A. Sánchez (2012). "Impacto del programa Juntos sobre la nutrición temprana". Documento de Trabajo 61. Lima: GRADE.
- Jones, N.; R. Vargas y E. Vivar (2007). "El programa Juntos y el bienestar de la infancia". En *Relaciones con condiciones: el Estado peruano frente a su infancia*. Lima: Young Lives Study.
- Kabeer, N. (1997). "Women, Wages and Intra-household Power Relations in Urban Bangladesh". *Development and Change* 28: 261-302.
- Kabeer, N. (1999). "Resources, agency, achievements: Reflections on the measurements of women's empowerment". *Development and Change* 30.
- Khandker, S.; G. Koolwal y H. Samad. (2010). *Handbook of Impact Evaluation. Quantitative Methods and Practice*. Washington: World Bank.
- Lagarde, M.; Haines, A. y N. Palmer (2009). "The impact of conditional cash transfer on health outcomes and use of health services in low and middle income countries (Review)". The Cochrane Collaboration-WILEY and Sons.
- Maldonado, I., M. Nájera y A. Segovia (2005). "Effects of the Oportunidades program in couple and family relationship". En *Gender Project of Oportunidades. Colegio de México en asociación con Oportunidades*.
- Malhotra, Schuler y Boender (2002). "Measuring women's empowerment as a variable in international development". Banco Mundial. Disponible en <<http://siteresources.worldbank.org/INTEMPowerment/Resources/486312-1095970750368/529763-1095970803335/malhotra.pdf>>.
- Malhotra, Anju and Mark Mather (1997). "Do Schooling and Work Empower Women in Developing Countries? Gender and Domestic Decisions in Sri Lanka". *Sociological Forum* 12(4): 599-630.
- Molyneux, Maxine (2008). "Conditional Cash Transfers: A Pathway to Women's Empowerment?". *Pathway Working Papers* 5. Brighton, Pathways to Women's Empowerment. UK.
- Monge, Álvaro (2007). *Unitary or collective models? Theoretical Insights and Preliminary Evidence from Peru. Serie Apuntes* N.º 55. Lima, Universidad del Pacífico.
- Perova, E. (2010). "Buying out of abuse - how changes in women's income affect domestic violence". Mimeo.
- Perova, E. y R. Vakis (2009). "Welfare impacts of the Juntos program in Peru: Evidence from a non-experimental evaluation". The World Bank.
- Perova, E. y R. Vakis (2012). "5 years in Juntos: New Evidence on short-term and long-term impacts of the program". *Economía*, 35(69).
- Rawlings, L. B. y G. Rubio (2003). *Evaluación del impacto de los programas de transferencias condicionadas en efectivo. Serie Cuadernos de Desarrollo Humano* 10. México D. F.: Secretaría de Desarrollo Social.

- Rosenbaum, P. R. and D. B. Rubin (1983). "The Central Role of the Propensity Score in Observational Studies for Causal Effects". *Biometrika* 70, 1, 41-55.
- Rowlands, J. (1995). "Empowerment Examined". *Development in Practice* 5(2): 1001-1007
- Rubio, M. (2002). "The impact of Progresa on household time allocation". Mimeo. México.
- Saavedra, J. E. y S. García (2012). "Impacts of Conditional Cash Transfer Programs on Educational Outcomes in Developing Countries. A meta analysis". Working paper. RAND, Labor and Population.
- Streuli, Natalia (2010). "A study of how Peruvian children involved in a social protection programme experience well-being and poverty". Tesis doctoral. Londres: Faculty of Children & Health, Institute of Education. University of London.
- Vargas R. (2010). "Impacto de los programas de transferencia condicionada Juntos en el Perú, Juana Azurduy en Bolivia y Bono de Desarrollo Humano en el Ecuador sobre el empoderamiento de las mujeres". Informe país-El Programa Juntos en el Perú. Lima.
- Vargas, R. y X. Salazar (2009). "Concepciones, expectativas y comportamiento en población pobre beneficiaria del programa Juntos en Huancavelica, Andahuaylas y Huánuco". Lima: CIES-CARE-UPCH.
- Vera Tudela, David (2010). "Impacto económico del empoderamiento de la mujer en el hogar: una aplicación al caso peruano". En *Economía y Sociedad* 74, CIES, Lima. Villatoro, P. S. (2004). "Programas de reducción de la pobreza en América Latina. Un análisis de cinco experiencias". Social Politics Paper 87. Santiago: Cepal.

Table 9: Regression results of proposed models for each indicator of empowerment

Dependent variable: Empowerment indicator	Decision on household resources	Freedom of movement	Gender ideology		
			Justify domestic violence	Opinion, desires and rights	Domestic violence episode
Juntos=1	0.0256*** [0.0070]	0.0039 [0.0081]	0.0042 [0.0056]	0.0036 [0.0076]	0.0074 [0.0058]
Targeting score	-0.0534*** [0.0155]	0.0155 [0.0148]	0.0074 [0.0113]	0.0308** [0.0118]	0.0297** [0.0104]
Age	0.0112*** [0.0026]	0.0056 [0.0041]	-0.0019 [0.0023]	-0.0016 [0.0037]	-0.0070** [0.0025]
Primary education =1	0.0173 [0.0104]	-0.0280* [0.0124]	-0.0058 [0.0084]	0.0127 [0.0107]	0.0204* [0.0088]
Secondary or higher education=1	0.0307*** [0.0071]	0.0181* [0.0088]	0.0042 [0.0051]	0.0023 [0.0070]	0.0107* [0.0050]
Paid work = 1	0.0268*** [0.0066]	-0.0097 [0.0069]	-0.0022 [0.0042]	-0.0110* [0.0053]	-0.0045 [0.0047]
Woman is household head=1	0.0609*** [0.0149]	-0.0290 [0.0193]	-0.0218 [0.0130]	-0.0265 [0.0155]	-0.0228 [0.0119]
Education years differences	-0.0015 [0.0008]	-0.0002 [0.0010]	0.0011 [0.0007]	0.0008 [0.0008]	0.0014* [0.0006]
Age at first birth	-	0.0018 [0.0010]	0.0030*** [0.0007]	0.0034*** [0.0010]	0.0023*** [0.0006]
Partner gets drunk frequently=1	-	-0.1939*** [0.0192]	-0.1439*** [0.0141]	-0.2215*** [0.0142]	-0.1261*** [0.0141]
Read newspaper=1	0.0322*** [0.0060]	-0.0027 [0.0069]	0.0036 [0.0047]	0.0011 [0.0057]	0.0125** [0.0047]
Listen to radio=1	0.0235 [0.0121]	0.0124 [0.0135]	0.0065 [0.0104]	-0.0045 [0.0109]	0.0070 [0.0106]
Independent farmer=1	-0.0162* [0.0076]	-	-	-	-
Childhood place: Country=1	-0.0281* [0.0131]	0.0202 [0.0170]	0.0216 [0.0145]	0.0130 [0.0134]	0.0041 [0.0115]
N	12768	12145	11413	11413	11413
R²	0.1473	0.0522	0.2260	0.1585	0.2262

Note 1: Econometric model for the decisions on household resources indicator includes additional control variables like women age squared, work outside the home=1, age differences between woman and partner, partner lives at home=1, number of children under 14 year old that live at home, indigenous language=1, childhood place was a small city=1 and childhood place was a town=1. The other four models for freedom of movement and gender ideology indicators also include additional control variables like women age squared, age differences between woman and partner, number of children under 14 year old that live at home, childhood place was a small city=1 and childhood place was a town=1.

Note 2: All models include fixed effects at geographical level (by regions) and dichotomous variables that capture annual fixed effects. Standard errors in parentheses, level of significance consider *** p<0.01, ** p<0.05, * p<0.1.