THE INFLUENCE OF CONDITIONAL CASH TRANSFERS ON MIGRATION: A RE-EXAMINATION FROM A GENDERED LENS

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Abstract

Past research on the influence of conditional cash transfers (CCTs) on migration has focused on the household as a harmonious unit. Drawing on feminist critiques, this paper views both CCT programs and migration decision-making from a gendered lens. Lauded as innovative anti-poverty programs, CCTs actually rely on the informal work of women to manage other family members in order to fulfill program requirements. This paper contends that CCTs emphasize traditional gender responsibilities for women as mothers and caretakers, which constrain them to the domestic sphere and limit their likelihood of migration. Using event history models and data from the Mexican Family Life Survey, the analysis finds evidence supporting the hypothesis that CCT participation disproportionately limits migration for women over men. The paper broadly argues that such anti-poverty programs are not monolithically positive and emphasizes the importance of studying micro-level events for better understanding macro-level trends in migration and development policy.

INTRODUCTION

Improving outcomes for women and children, often under the banner of "women's empowerment," has emerged as a popular paradigm in international development programs over the past few decades (Burra, Deshmukh-Ranadive, and Murthy 2005; Narayan-Parker 2005). Often, many of these programs attempt to maximize positive outcomes by relying on the traditional roles played by women as mothers and homemakers, rationalizing that women are more likely to invest in the well-being of their families (Chant 2008; World Bank 2011). Recent critical work has noted the distinctly maternalist orientation of the emerging development model, wherein the focus on anti-poverty rests heavily on the shoulders of women, in particular mothers, to ensure responsible investment into the human capital of household dependents (Bradshaw and Víquez 2008; Chant 2008; Molyneux 2006).

One representative case of matricentric development policy is the conditional cash transfer (CCT) program, which is one of the most widely adopted aid strategies in place today on

a global scale. Defined as welfare programs that allocate monetary aid on the condition that recipients fulfill certain health, education, nutrition, and other human capital growth requirements, CCTs aim to both provide short-term financial assistance while also working towards moving recipients away from welfare dependency (Adato et al. 2000). However, CCTs frequently invoke Mother and Caretaker tropes by asking female heads of household to be primarily responsible for managing program requirements in ways that can constrain their autonomy. With mother-caretaker responsibilities being often inextricably tied to work in the domestic sphere, CCTs can place limitations on women's involvement in activities outside of the household, including those known to increase women's autonomy like labor force participation, community organizing, and migration (Hondagneu-Sotelo 1992; Pedraza 1991; Spitze 1988).

Few studies have yet to empirically consider whether these types of programs in fact reduce the extra-household activity participation for women or the mechanisms through which this may occur. Drawing on these points, this paper will specifically focus on the case of Mexico by running an empirical and theoretical analysis on the likelihood of migration given participation in Mexico's CCT program, PROGRESA/Oportunidades. Though migration itself does not necessarily always increase women's autonomy and some women's empowerment programs do, conversely, have positive effects for women, many studies have shown that migration does tend to influence women's greater labor force participation and household decision-making power, making it an important outcome to consider.

This paper argues that CCTs can limit women's migration via two mechanisms—restricting their physical mobility with location-specific requirements and equating "good mothering" with successful management of program conditions concentrated within the domestic sphere. Using longitudinal data from the Mexican Family Life Survey (MxFLS), the analysis

will utilize discrete-time event history models to specifically test two hypotheses: (1) Participation in PROGRESA/Oportunidades will decrease the likelihood of migration for women in participating families relative to their male counterparts and (2) PROGRESA/Oportunidades participation should have the largest effect for female heads of household, for whom the program's maternalist expectations would most directly apply.

The first section of this paper outlines the theoretical framework by first reviewing past literature on CCTs and migration and then noting the importance of taking a gendered perspective for better understanding the relationship between the two. The second describes the setting of the study, particularly the rationale for focusing on the Mexican case and the specific details of PROGRESA/Oportunidades. The third describes the hypotheses and analytical strategy in greater detail. The fourth discusses the results from the analysis, which provide evidence in favor of the hypothesis that PROGRESA/Oportunidades constrains beneficiary women's likelihood of migration. The final section summarizes the main points of the paper and examines the implications of the empirical results on broadening our understanding of macro-level migration and development trends from a gendered, micro-level viewpoint.

THEORETICAL FRAMEWORK

The Role of Gender in Migration Decision-Making

In early migration research, gender was often relegated to the fringes of mainstream work. In reality, however, migrants have always been and, since the 1970s, have increasingly become heterogeneous in nature due to structural shifts in the economic and political landscapes in both sending and receiving countries (Castles, Miller, and Ammendola 2005; Durand and Massey 2004; Henderson 2011; Hing 2010; Jenkins 1977; Samora 1971; Segura and Zavella 2007). Though many migrants are stereotypically young, rural-based men, the group has

expanded to encompass the likes of wives and children migrating for family reunification, urban-origin migrants seeking non-agricultural job opportunities, and women moving to fulfill the ever-increasing demands for domestic and factory labor.

Oftentimes, these descriptors too generally describe broad demographic patterns without acknowledging how individual migration decisions continue to be complicated and gendered. Thanks in large part to the feminist lens that has been directed towards the study of migration in recent decades, it is now more commonly recognized in research that migration is a social process structured by gender as an institution (Herrera 2013; Massey, Fischer, and Capoferro 2006; Pedraza 1991). Rather than being acknowledged as a mere variable to be added as supplementary to the primary research question, it is more accurate to view gender as setting the parameters around which migration decisions are made as well as being subsequently changed as a result of those decisions.

In actuality, who migrates and when is sometimes unilaterally determined by the presiding patriarch, independently decided by adult children in parental households as a move towards establishing their autonomy, or negotiated between spouses who share conjugal power (Hondagneu-Sotelo 1994). Informing some of these decisions might be patriarchal expectations and practices that differentially influence the likelihood of migration for various family members. Though gender relations are in flux, much evidence has shown that there persists a narrative of the male breadwinner and female homemaker-dependent (Gutmann 1996; Sanders 2009; Stevens and Pescatello 1973). These narratives often dictate that men belong outside the home for labor while women belong within it to perform childcare and housework (Acker 1992; Miller and Garrison 1982). Due to these expectations, gender can influence the migration decision process by shaping the idea that men are more suitable migrants than women. By

recognizing the role that gender plays in migration decision-making, it becomes clearer why it is important to take a gendered perspective when studying it and its relationship to other social processes.

The Influence of Conditional Cash Transfers on Migration

Research on the general relationship between CCTs and migration is relatively scarce, though what does exist does not consider the integral role of gender in the migration process. The vast majority of work in the area has focused on Mexico's CCT program, PROGRESA/Oportunidades, due to availability of data from the program's unique experimental design stage. Drawing on that data, Stecklov et al. (2005) found that PROGRESA participation lowered the likelihood of international migration, arguing that cash from the transfer sufficiently tempered the incentive to leave by increasing beneficiary families' incomes. Subsequent studies by Angelucci (2013) and Azuara (2009) found that program participation actually increased the likelihood of out-migration. The former argued that the cash helped facilitate moves by formerly credit-constrained recipients while the latter discussed the long-term effects of human capital investment in helping recipients become more skilled and, hence, more marketable prospective migrants over time. No research, however, has directly inspected how CCT participation may differentially affect people living within a household, especially based on their gender. Given what we know about the complex gender relations informing migration decision-making, this paper attempts to address this gap in the CCT and migration literature.

Gendered Perspective on Conditional Cash Transfers and Migration

This study takes a gendered perspective by recognizing that CCTs do not uniformly affect members within beneficiary families. Such programs unevenly allocate investments (e.g. children may receive education subsidies, seniors may be given extra cash transfers, or pregnant

women may be provided with basic pre-natal care). Likewise, they also unevenly distribute responsibilities among recipients so that women, and female heads of household especially, are expected to ensure the successful completion of program requirements not only for themselves but also for all other household members. Qualitative evidence from Bradshaw and Víquez (2008) and Molyneux (2006) have demonstrated that the conditionality of cash transfers fall disproportionately on women, who are tasked with attending public health lectures, completing community service, regulating household members' health checkups, ensuring their children's school attendance, along with a multitude of other formal and informal duties required by the program. Due to the maternalist structure of many CCTs, it is important to consider how this may affect gender disproportion among several outcomes, including migration, rather than viewing their effects as being uniformly distributed across all beneficiaries.

Acknowledging that migration decision-making is already a gendered process, the matricentric requirements placed on women by CCTs are expected to further restrict women's migration by reinforcing their responsibilities within the domestic sphere. For female heads of household, the responsibilities required by the program fall within the realm of their "traditional" responsibilities of childcare and housework, so the expected effect of CCTs on migration should be even stronger for this group in particular.

SETTING

Mexican Case Study

The rationale for concentrating on the Mexican case is threefold: (1) A rich literature already exists regarding Mexican migration and gender relations because of the country's shared history with and close proximity to the United States; (2) The Mexican migration stream is representative of many other industrializing-country migration patterns throughout the world,

making it somewhat generalizable; (3) Mexico's CCT program of interest for this paper—PROGRESA/Oportunidades—is a model CCT program, and its structure draws on Motherhood tropes in similar ways to other women's empowerment programs, making it an ideal case to test this particular hypothesis.

PROGRESA/Oportunidades

Over the past two decades, CCTs have emerged as some of the most widely adopted development strategies pursued around the world, present in countries like Brazil, Chile, Honduras, Bangladesh, Philippines, and of interest here, Mexico (World Bank 2009). Mexico piloted its own CCT program in 1997 called PROGRESA—later renamed Oportunidades in 2001—and has since been heralded as one of the most successful CCT programs in terms of both population coverage and observed outcomes (Barber and Gertler 2008; Behrman, Parker, and Todd 2005; Fernald, Gertler, and Neufeld 2008; Rawlings and Rubio 2005).

PROGRESA began as a simple program in 1997 that allocated two kinds of welfare assistance to qualified beneficiaries: a food grant and an education scholarship. Both were dispensed on a bi-monthly basis on the condition that beneficiaries completed certain requirements. The food grant for the amount of US$16 per month (in 2001 dollars) would be distributed to families only if all members attended an annual clinic check-up and some members attended public health information sessions (Stecklov et al. 2005). The education scholarship was slightly different in that the amount received by the family varied by the number of children present. All children from 7 to 18 were qualified to participate and were required to attend school up to 85% of the time each month. Failure to meet the attendance requirement would lead to a loss of the cash transfer for that month for that particular child. By 2001—a year prior to the first survey wave utilized in this analysis—the program expanded considerably to offer a variety of

subsidies and grants that built on PROGRESA's previous efforts, including greater financial incentives for youths to finish high school, cash transfers to purchase school supplies and uniforms at the beginning of academic terms, nutritional supplements for infants, and additional cash transfers for senior citizens (Secretería de Desarrollo Social 2014).

Oportunidades covered over 4 million families in 2002, and in some of the poorest states like Chiapas and Oaxaca where the number of qualifying families is high, the percentage of beneficiary families can range anywhere between 45% to 60% of the total state population (Secretería de Desarrollo Social 2014; Stecklov et al. 2005). The amount of money directly received from the program is substantial, amounting up to 22% of a family's original, pre-participation income on average (Angelucci 2013).

"Co-responsibility" and the Role of Mothers

Though the primary mission of Oportunidades is to build the capabilities of Mexico's poorest families through a variety of required education, health, and nutrition incentives, the program itself relies heavily on the informal work of women in participating families to manage and ensure the cooperation of all other members. Built into the structure of how Oportunidades operates is a gendered division of labor that requires women to be accountable in three direct ways:

- Women, often the mothers, are almost without exception the parties to whom the regular cash transfers are distributed.
- Attendance of public health lectures regarding maternal, child, and infant health are asked of mothers and pregnant women but not for other family members.
- Community chores, like cleaning and event set-up, are asked and sometimes required for participating women.

Indirectly, however, qualitative evidence has shown that family management in service of Oportunidades' requirements goes beyond that (Molyneux 2006). Ensuring that children attend school, that infants receive the program's nutritional supplements, and that family members actually attend their health check ups are just some of the informal duties asked of mothers, all of which are viewed as their "co-responsibility" for the program's success or failure. As one of the main platforms of Oportunidades, the notion of "co-responsibility" disproportionately shifts responsibility for the well-being of Mexico's marginalized families onto the shoulders of beneficiary women.

Oportunidades participation, therefore, should limit the likelihood of women's migration via two mechanisms: (1) participation requires predominantly women to physically remain at the place of origin in order to fulfill program requirements and (2) Oportunidades invokes traditional gender expectations in order to equate "good mothering" to mothers' successful management of the program's requirements, roles that chiefly confine them to the household.

HYPOTHESES

Based on the theoretical framework, this paper will directly test two hypotheses:

H1: Women whose families participate in Oportunidades are less likely to migrate than men whose families participate in Oportunidades.

H2: Female heads of household whose families participate in Oportunidades are even less likely to migrate compared to other women whose families participate in Oportunidades.

DATA AND METHODS

Data

The analysis utilizes data from the Mexican Family Life Survey (MxFLS), which is the first nationally representative survey of the Mexican population that follows respondents

regardless of their migration decisions. Intended for understanding the intersection between economic, socio-demographic, geographic, and biological characteristics of the Mexican population, the survey's multi-thematic design also makes it well suited for studying the intersection between migration, development, and gender. The baseline sample design is probabilistic, stratified, and multi-staged in which every phase is an independent sample of households in Mexico during 2002. The primary sampling units were chosen according to pre-established demographic, economic, and geographic characteristics meant to be representative of the Mexican population. In total, approximately 8,440 households were sampled, corresponding to about 35,000 individuals living within 150 communities (Rubalcava and Teruel 2006, 2008, 2013). Using all survey waves that are currently available, the analysis will draw on data from Wave 1 (2002), Wave 2 (2005-2006) and Wave 3 (2009-2012). Limiting the sample to just those at risk of migrating independently (i.e. those age 15 and over) and restructuring it to hazard file format, the final sample includes a total of 45,564 person-interval observations, where interval refers to the periods between sequential waves, for a total of 25,929 unique individuals.

MxFLS is characterized by a moderate percentage of missing observations along some variables, particularly that for migration (~ 17%). Since many respondents were interviewed even if they decided to migrate between waves, the issue of sample loss due to migration is not as problematic as it is for similar kinds of surveys. Wave 2 and Wave 3 managed to relocate and re-interview about 90% of the original sampled households, the remainder of which can partially account for the missing observations. It is unclear what may account for the remaining attrition from the sample. This paper makes an effort to partly address the issue of missing cases by running the analysis separately on both a listwise deleted data set and on an multiply imputed data set created via chained equations using the mice package in R (van Buuren and Groothuis-

Oudshoorn 2011). Only results from the multiply imputed data set will be reported because both are substantively similar.

Table 1 Descriptive Statistics

	N	Min	Mean	Max	S.D.
Log income	45,564	0.00	8.77	23.03	4.00
Age	45,564	15	38.61	110	18.07
Migration history count	45,564	0	0.53	15	1.07
Economic insecurity	45,564	0	0.38	5	0.67
Migrant network	45,564	0	0.27	0.53	0.12
Sex					
Male	21,334	-	-	-	-
Female	24,230	-	-	-	-
Marital status					
Married	22,656	-	-	-	-
Unmarried	22,908	-	-	-	-
Education					
No high school	34,669	-	-	-	-
High school or above	10,895	-	-	-	-
Access to credit					
No	30,486	-	-	-	-
Yes	15,078	-	-	-	-
Toilet					
No	11,546	-	-	-	-
Yes	34,018	-	-	-	-
Dwelling status					
Own/paying off	35,053	-	-	-	-
Rent	2,641	-	-	-	-
Borrow/ejido land	7,870	-	-	-	-
Rural					
No	27,422	-	-	-	-
Yes	18,142	-	-	-	-
Participates in Oportunidades					
No	37,946	-	-	-	-
Yes	7,618	-	-	-	-

Methods

The analysis uses discrete-time, event history models and logistic regression equations focusing on the experience of the first observed migration event. Migration was defined as any reported migration by the respondent for three months or longer to any locality outside of the

respondent's original community. The data is structured so that individuals are observed from the intervals between t and t + 1 as well as between t + 1 and t + 2. All time-varying independent variables are lagged by one wave so that the report of a migration event is considered at either t + 1 or t + 2 while associated independent variables are measured at t and t + 1, respectively. Time-unvarying independent variables are held constant at their values at time t.

Only individuals present in Mexico during time t are included in the analysis, and they continue to be included until they experience their first migration event, become deceased, or the survey ends, at which point they are removed because they are no longer "at risk" or are no longer observed. For each interval, the outcome is defined as 1 if the individual experienced any migration, whether international, domestic, permanent, and/or temporary, or as 0, if no migration was experienced. The same model specifications were used to analyze disaggregated migration outcomes—just international, just permanent, and just temporary—but all were substantively similar, so only the results for any migration event will be reported since women are expected to be restricted in terms of their spatial mobility across all migration types anyway. For the measure for (female) head of household to test H2, the analysis uses marital status since multiple families may live in one household, and maternalist program requirements can apply to multiple adult women living under one roof who share responsibilities. Marital status, then, is used to differentiate between those who play some traditional maternal role versus those who do not. Most controls used are similar to conventional measures of socio-demographic traits in other migration studies, including measures for age, sex, marital status, income, etc. Some deserve further explanation; the variable for having a toilet in the home, for example, is a measure of marginalization and access to basic infrastructure. Additionally, dwelling status is divided into those who own or are paying off a home, those who rent, and those living for free off borrowed

or *ejido* (community-owned) land. Lastly, economic insecurity is often not included as a control in migration studies, but it is important given that many migration events are motivated by the experience of some economic shock. Here, economic insecurity is measured by counting the number of shocks experienced by the household, defined as any adult household member death, illness, hospitalization, job loss, business failure, crop failure, or livestock death. Table 1 includes descriptive statistics for all final variables used, and Table 2 includes the definitions of each variable.

Five models will be presented in total to illustrate the test of the hypotheses, using the following logistic equation to estimate the log odds of migrating:

$$\log\left(\frac{P_{migration}}{1 - P_{migration}}\right) = \alpha + \beta' x_{it}$$

where α represents the intercept, β' is a vector of estimated coefficients for each independent variable, and x_{it} represents the value for individual i at time interval t, though some variables are time invariant.

The first is a simple baseline model for all adults at risk, including all control variables but no primary independent variables. The second model includes the baseline specification and the measure for participation in Oportunidades just to illustrate the singular effect of the program on migration. The third model includes the baseline specification along with all the primary independent variables, where the relationship of central interest is the interaction between sex and household participation in Oportunidades. As a test of H1, this model is intended to illustrate how the program differentially affects beneficiaries based on gender. The fourth model subsets the data to just women at risk, resulting in 24,230 person-interval observations for 13,863 unique individuals. The fifth model is similar to Model 4 but instead subsets the data for only men,

Table 1 Definitions of Variables

Variable	Definition	Time-Varying
Outcome Variable		
Any migration	Whether a respondent migrates: internationally, domestically, permanently, and/or temporarily = 1 or does not migrate = 0	Yes
Primary Independent Variables		
Participates in Oportunidades	Whether a household participates in Oportunidades: participates and receives money = 1 or does not participate or participates but does not receive money = 0	No
Participates in Oportunidades * Marital Status	Interaction between being single and part of a household that participates in Oportunidades	Yes
Participates in Oportunidades * Sex	Interaction between being male and part of a household that participates in Oportunidades	No
Control Variables		
Individual		
Sex	Reported sex of individual: male = 1 and female = 0	Yes
Marital status	Marital status of individual: single, divorced, or widowed = 1 or married = 0	Yes
Age	Age of individual in years	Yes
Education	Any high school education or above = 1 or no high school and below = 0	Yes
Income	Log of any income (agricultural or non-agricultural) made within past 12 months	Yes
Migration history	Count of any previous individual migration events	No
Access to credit	Has access to borrowing from any formal (e.g. bank, cooperative) or informal (e.g. friends, relatives) source of credit = 1 or not = 0	Yes
Household		
Economic insecurity	Count of number of events experienced 5 years prior to t and 3 years prior to t + 1, including household member deaths, illnesses, hospitalizations, business failures, job losses, natural disasters, crop failures, and livestock deaths/thefts	Yes
Dwelling status	Status of the primary dwelling unit for the household: borrowed or ejido land = 2, rented = 1 or owned/paying off = 0	Yes
Infrastructure access—toilet	Has toilet = 1 or does not have toilet = 0	Yes
Community		
Rural	Household resides in a community with a population less than 2500 = 1 or in a community with a population at or above 2500 = 0	No
Migrant network	Proportion of surveyed individuals with any migration history in respondent's community divided by total number of surveyed individuals from that community	No

resulting in 21,334 person-interval observations for 12,391 unique individuals. Since three-way interactions are difficult to interpret, the last two models are used to roughly demonstrate the same relationship between sex, marital status, and program participation but with ease of interpretation. The relationships of central interest here are the interactions between marital status and Oportunidades. As previously stated in H2, besides just affecting women and men differently, the program should also have an even greater effect on women who are married compared to unmarried women. A t-test was used to test for significant differences between married men and married women whose families participate in Oportunidades, showing that married women were still much less likely to migrate than married men. Graphed predicted probabilities are used in Figure 1 to demonstrate these points more clearly, where confidence intervals were estimated for each predicted probability via bootstrap methods.

Due to the structure of hazard files as well as the household-level scope of Oportunidades, the robcov() command from the rms package in R was used to adjust for clustering at the individual and household levels. The function uses the Huber-White method to adjust the variance-covariance matrix of a fit from maximum likelihood in order to correct for heteroscedasticity and for correlated responses from cluster samples (Harrell, Jr. 2014).

RESULTS

Socio-Demographic Measures

The estimated coefficients for the socio-demographic controls are relatively consistent across all five models, though the gender-disaggregated models are unsurprisingly somewhat different. The estimates also generally align with similar findings and theory in the literature on Mexican migration. Unmarried individuals are more likely to migrate than those who are married, which is comparable to findings in the life course literature that suggest that being

unmarried comes with fewer spatial ties (Kanaiaupuni 2000; Sandefur and Scott 1981). The odds of migrating slightly decrease with age, so younger individuals are more likely to migrate, which also aligns with the life course perspective (Leslie and Richardson 1961; Ritchey 1976). Renting versus owning a home, which is related to other factors important for migration risk like asset accumulation and wealth, also lowers the likelihood of migrating.

Having access to credit, whether formal or informal, slightly increases the odds of migrating, which is consistent with the literature that argues that lack of credit is a binding constraint on the resource-poor (Angelucci 2013; Rapoport 2002). Having a toilet at home, which may indicate a level of incorporation into basic infrastructure and again, not being entirely resource-poor, increases the odds of migration. Those with a higher education (i.e. some high school or above) are more likely to migrate compared to those who never attended high school, which corroborates claims that say those with more human capital are better able and, thus, more likely, to migrate (Azuara 2009; Feliciano 2005). The estimate for amount of income made twelve months prior to being surveyed is not significant across all models, though the models do account for asset ownership in the dwelling status measure.

Additionally, as the number of past migrations increases, the odds of migrating also increase, which may indicate that individuals benefit from having more experience from previous migration events. This is similar to the estimate for migration network, which shows that as the proportion of community members who have migrated increases, the likelihood of migration for an individual from that community also increases. The estimate is consistent with social networks and cumulative causation theories, which look at the distributive effects of migrant capital in perpetuating migration via social ties (Kritz et al. 1992; Massey 1990).

Discrete Time, Event History, Logistic Regression Models

	Dependent Variable: First Observed Migration									
	Model 1: Baseline		Model 2: W/ just program		Model 3: W/ all predictors		Model 4: Women Only		Model 5: Men Only	
	β	s.e.	β	s.e.	β	s.e.	β	s.e.	β	s.e.
Intercept	-2.23***	0.13	-2.21***	0.13	-2.16***	0.13	-2.14***	0.18	-1.96***	0.17
Individual										
Sex, male	0.22***	0.03	0.22***	0.03	0.18***	0.04	-	-	-	-
Marital status, unmarried	0.23***	0.05	0.23***	0.05	0.17***	0.05	0.22***	0.06	0.10	0.07
Log income	-0.01	0.00	-0.01	0.00	-0.01	0.00	-0.01	0.01	0.00	0.00
Education, high school +	0.18***	0.04	0.18***	0.04	0.18***	0.04	0.31***	0.06	0.05	0.06
Age	-0.03***	0.00	-0.03***	0.00	-0.03***	0.00	-0.03***	0.00	-0.03***	0.00
Access to credit, yes	0.11**	0.04	0.11**	0.04	0.11**	0.04	0.13*	0.05	0.09 +	0.05
Migration history count	0.16***	0.02	0.16***	0.01	0.16***	0.02	0.12***	0.02	0.21***	0.02
Household										
Toilet, yes	0.17**	0.06	0.16**	0.06	0.16**	0.06	0.15*	0.07	0.17*	0.07
Dwelling, rent	0.71***	0.07	0.71***	0.07	0.71***	0.07	0.75***	0.09	0.67***	0.09
Dwelling, borrow/ejido	0.13*	0.05	0.13*	0.05	0.13*	0.05	0.11	0.07	0.14*	0.07
Economic insecurity	0.08**	0.03	0.08**	0.03	0.08**	0.03	0.08*	0.04	0.09**	0.03
Community										
Rural	0.29***	0.06	0.31***	0.06	0.31***	0.06	0.28***	0.07	0.34***	0.07
Migrant network	0.54*	0.21	0.54*	0.21	0.54*	0.22	0.34	0.27	0.72**	0.27
Oportunidades, participates			-0.07	0.06	-0.47***	0.10	-0.59***	0.13	-0.18	0.11
Oportunidades * Sex					0.21*	0.10	-	-	-	-
Oportunidades * Marital status					0.45***	0.11	0.62***	0.15	0.31*	0.14
Number of Observations	45,564		45,564		45,564		24,230		21,334	
Likelihood Ratio	1215.18		1216.91		1246.82		639.13		598.56	

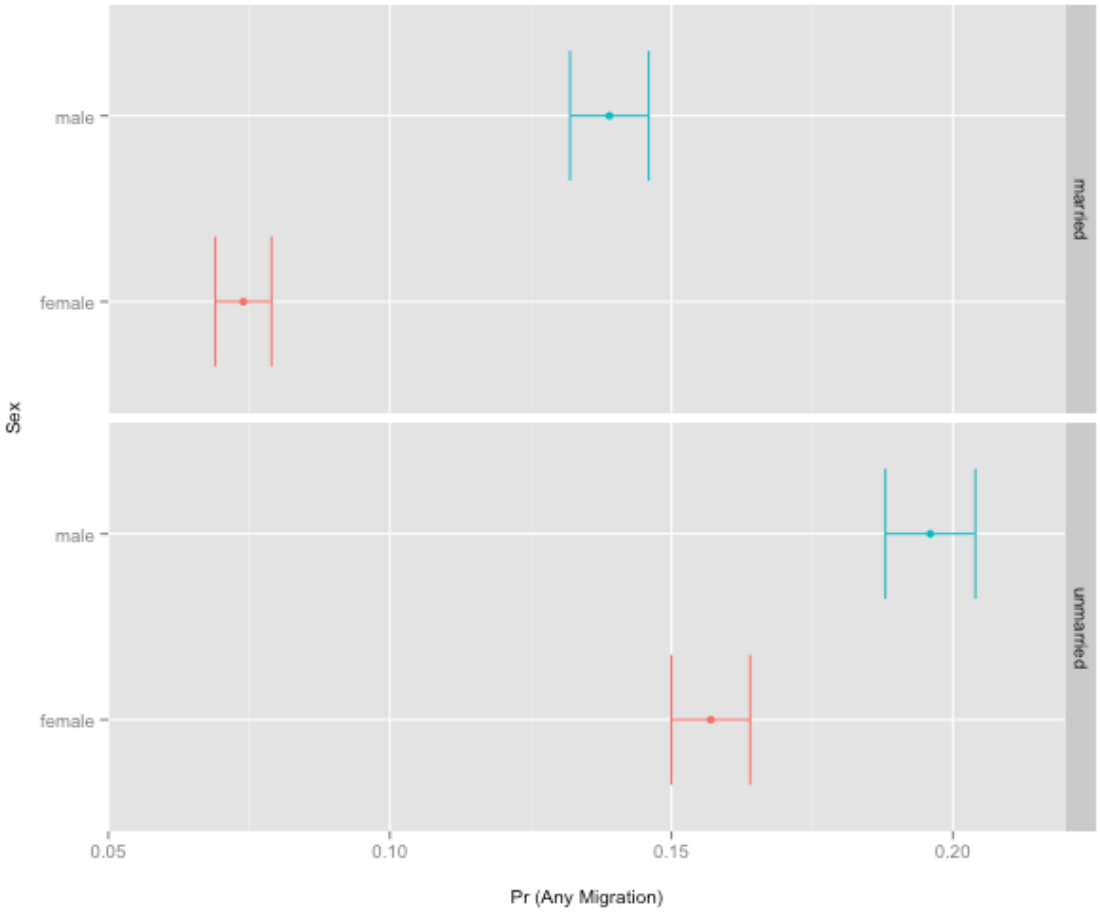
Note: p(<.1+ , <0.05 *, <0.01 **, <0.001***)

As the number of economic shocks experienced by a household increases, the likelihood of migration also slightly increases, which is unsurprising since events like natural disasters, bouts of unemployment, and crop failures could displace more people, often involving migration of some kind (Hansen and Oliver-Smith 1982; Ritchey 1976). Moreover, consistent with many migration studies, those from rural areas are more likely to migrate than those from non-rural areas, and men are more likely to migrate than women (Fields 1975; Kanaiaupuni 2000; Massey et al. 2006; Todaro 1969).

Interactions between Oportunidades Participation, Gender, and Marital Status

Model 2 illustrates the effect of program participation without any interactions where participating in Oportunidades is shown to lower the odds of migrating by 0.93, though this is not statistically significant. Model 3 is the primary test of H1, where the interaction between sex and participation in Oportunidades is of central interest. The estimated coefficient shows that men whose families participate in Oportunidades have 1.48 higher odds of migrating than women whose families also participate in the program, significant at the $p < 0.05$ level. This supports the hypothesis that women are less likely to migrate than their male counterparts given that both reside in households that participate in Oportunidades. It should be noted that Oportunidades does lower the odds of migrating for both men and women in participating families, which corresponds to similar findings from Stecklov et al. (2005). However, within beneficiary families, the important relationship here is the significant interaction between sex and program participation, which demonstrates that even within the program itself, there are gender-based differences in terms of who is disproportionately affected.

Figure 1. Predicted Probability of Migration for Oportunidades Participants



Beyond just basic dissimilarities between risk of migrating for beneficiary men and women, however, is still the difference among women whose families benefit from Oportunidades. The program's requirements, which impose greater restrictions and responsibilities on presiding female heads of household, should have a greater effect on limiting the odds of migration for women in those roles. In order to empirically test H2, Models 4 and 5 analyze the interaction between marital status and Oportunidades participation. The estimated coefficients demonstrate that unmarried women whose families participate in the program have a 2.32 higher odds of migrating than married women in participating families, and unmarried men have a 1.51 high odds of migrating that married men. These results support the point that the

program really imposes its restrictions on women already tied in some way to matricentric gender responsibilities. Figure 1 shows the predicted probabilities of migrating for married and unmarried men and women who participate in the program, holding all other characteristics equal. The center points are point estimates of the predicted probabilities themselves, and the whiskers show the 95% confidence intervals. By and large, the graph shows that married women are disproportionately affected by Oportunidades participation in that they are far less likely to migrate than any other group. Married men are less likely to migrate then unmarried women, but unmarried women are still less likely to migrate than unmarried men. So all else being equal, both married and unmarried women are less likely to migrate compared directly to their male counterparts.

CONCLUSION

Based on the results from the analysis, this paper argues that there is evidence to support the claim that PROGRESA/Oportunidades participation disproportionately reduces the likelihood of migration for women over men, especially for married women. The theoretical framework presented earlier supports this claim. Grounded in the notion that it is important to take a gendered perspective when studying the relationship between CCTs and migration, it emphasizes the integral role gender expectations play in both migration decision-making and the division of responsibilities imposed by maternalist development programs. Such expectations often emphasize "good motherhood" as being analogous to the completion of duties centered within the domestic sphere, which can restrict women's participation in activities outside of the household, including migration.

More broadly, though, the results also support the notion that inspecting micro-level actions can reveal important caveats to macro-level trends. Though some have pointed to the

growing "feminization" of migration streams as representative of women's gains in autonomy, the decision to migrate itself remains affected by traditional gender roles that tend to constrain women's mobility outside of the domestic sphere. Additionally, development campaigns claiming to promote women's empowerment are also not monolithically positive. Though these may increase positive outcomes for some beneficiaries, many draw on traditional gender roles that reinforce patriarchal or paternalistic structures that actually hinder gains in women's autonomy along other dimensions. This paper has contributed to research in this area by beginning to unpack some of the micro-level pathways that may contribute to limiting women's movement beyond the domestic sphere via patriarchal development paradigms. More research on how particular development programs affect various migration outcomes for gender-disaggregated groups is needed to advance research on migration and development from a gendered perspective.

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