



Empowerment after migration

Exploring the association between migration and the empowerment of women who stay behind

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Introduction

Migration is a recurrent global phenomenon that has rapidly increased over the past decades. As of 2020, there were 281 million international migrants (equivalent to 3.6 percent of the global population), a 27 percent increase compared to the 221 million in 2010 (UN DESA 2020). Even though COVID-19 slowed international migration (McAuliffe and Triandafyllidou, 2022), it is quickly returning to pre-pandemic levels. Approximately half of migrants are men, and a third are youth (15-24 year olds). Western Europe and the United States receive the most international migrants, and most migrants originate from rural areas, which receive around 40% of international remittances (Food and Agriculture Organization 2018). Domestically, there were around 763 million of internal migrants as of 2013, equivalent to around 12 percent of the global population (United Nations Population Division, 2013). Whether international or domestic, a large share of migrants is forced to leave their homes due to multiple reasons that include socioeconomic, climatic, and conflict factors, which may also act as compound shocks (Piguet et al., 2011; Josephson and Shively, 2021), such that migration similarly represents an important adaptation strategy that can help improve livelihoods, build resilience, and protect against fragility (Hernandez et al., 2023).

When individuals migrate— whether domestically or internationally, short- or long-term—migrants and their families experience dramatic changes in household dynamics and are exposed to new contexts and ideas (Hugo, 2002). This phenomenon has driven a body of research focused on the linkages between women's empowerment and migration, which primarily focuses on changes to the empowerment of wives when their husbands migrate (Fernández-Sánchez et al., 2020). To a lesser extent there is also literature on whether empowerment status contributes to the decision to migrate and migration experiences, as well as whether individuals might become more, or less, empowered during migration and at their ultimate destinations.

Empowerment, as Kabeer (1999) defines it, is the ability to make strategic life decisions in a context where it was previously denied. Empowerment is multidimensional, and the links between empowerment and migration may differ across dimensions of empowerment and migration patterns. In this note, we assess the links between women's empowerment and migration by focusing on the differences in empowerment (as captured by a range of empowerment indicators) among women for whom a household

member migrated (either domestically or internationally) in the past 12 months and those for whom nobody migrated.

The next section describes the data and methodology used in the analyses, and the subsequent section discusses the results. The final section provides a summary of our findings and provides some concluding remarks.

Data and methodology

In 2019, the International Food Policy Research Institute (IFPRI) proposed the MPI (hereafter the e-MPI or external MPI), a tool to objectively estimate and track the probability that individuals from a given household will migrate abroad in the following few years. The central idea was to identify and keep track of a small subset of household indicators and conditions that highly correlate with the (latent) decision to migrate abroad. The index was developed and calibrated for the case of Guatemala (Ceballos and Hernandez, 2020) and, later on, for Honduras (Almanzar et al., 2022). In addition, Ceballos et al. (2023) calibrated an i-MPI to predict internal (domestic) migration for both Guatemala and Honduras. The i-MPI was a natural extension to the e-MPI, given that internal migration is often regarded as an intermediate step to external migration—where individuals relocate internally before leaving their countries (Cattaneo and Robinson, 2019; McAuliffe and Triandafyllidou, 2021)—and that it relates to a host of important policy issues such as urbanization, shifting livelihoods, dietary changes, and increased mental stress, among others. To date, the MPI indices have been piloted and implemented across numerous field surveys in both countries, in person and over the phone.

Ceballos et al. (2024) report the results from an out-of-sample validation of the MPI tools in Honduras and find that both the e-MPI (to anticipate external or cross-border migration) and the i-MPI (to anticipate internal or domestic migration) have an overall good predictive power on average, in terms of identifying households that have a higher or lower propensity to migrate.¹ In addition, both the e-MPI and the i-MPI turn out to be important predictors for, respectively, external and internal migration, in contrast to alternative measures that show no statistically-significant effects, including crime, perceptions, or food insecurity variables, important dimensions highlighted in the migration literature and in anecdotal evidence around migration in Honduras.

We rely on the same data as Ceballos et al. (2024), collected over two survey rounds among a sample of households in Western Honduras, as part of the broader validation study around the MPI. The baseline and follow-up surveys were conducted in, respectively, May-June 2023 and 2024 across nine Honduran departments: Comayagua, Copán, Cortés, Intibucá, Francisco Morazán, La Paz, Lempira, Ocotepeque, and Santa Bárbara.

The baseline survey reached 1,209 households and was designed to collect the questions underlying the MPI in addition to a broad range of data related to potential migration factors. The baseline survey sample was selected through a multi-stage cluster sampling strategy. In the first step, 23 municipalities were selected with selection probability proportional to migration prevalence (using the 2022 rate of returnees to total population) and size (total population as per the 2013 Census). The oversampling of municipalities with a higher prevalence of cross-border migration was done with the objective of maximizing the chances of observing future migration events among interviewed households. In the second step, five aldeas were randomly drawn within each of the municipalities selected in the first step, with selection probability proportional to their total population during the 2013 Census. In the third step, two caseríos or barrios were

selected within each aldea.² Finally, in order to obtain a random sample of households within each community (caserío or barrio)—and in the absence of listing data—we designed a procedure inspired by the EPI method (originally proposed by the World Health Organization’s Expanded Program on Immunization).³ Using GPS coordinates for each community (available from the Instituto Nacional de Estadística), six random locations were selected within a 5-kilometer radius of the community’s coordinates.⁴ Enumerators were instructed to travel to each of these random locations and identify the nearest potential residence and attempt to interview that household, proceeding to neighboring structures until a household willing to participate was found.⁵

The follow-up survey was conducted 12 months after the baseline survey and re-interviewed 1,094 of the original households, inquiring about actual (external and internal) migration instances of any of the household members during the previous 12 months.

Migrants in each household were identified based on a survey question on whether someone in the household migrated in the previous 12 months and a follow-up question on where they migrated. External migration captures migration outside of Honduras, while internal migration captures migration to a different department within Honduras (thus excluding individuals who left the household but moved within the same community or to another community in the same department). While we have information on individual migrants and on the number of migrants within each household, we construct the migration indicators using the household as the unit of analysis. Note that a household may exhibit both external and internal migration, since different household members could have migrated to different locations.

Table 1 presents descriptive statistics for the final analysis sample. Out of the 1,094 interviewed households, 968 had a female respondent for the empowerment section. Out of these, 90 households (or 9.3 percent) reported having at least one migrant during the last 12 months; with 51 of them seeing someone migrate internationally (5.3 percent of the total sample) and 43 domestically (4.4 percent). We observe some statistically-significant differences between the two groups in terms of basic socio-demographic characteristics, where households with migrants tend to have respondents with slightly lower educational achievement and to be larger and poorer.

Empowerment indicators

The survey collected data on a theoretically-informed subset of indicators from the Women’s Empowerment Metric for National Statistical Systems (WEMNS), identified as those most likely to be associated with migration based on a review of the literature, in addition to a few indicators from the project-level Women’s Empowerment in Agriculture Index (pro-WEAI).⁶ The data to construct these indicators were collected during the follow-up survey from a single respondent in each household. The protocol was to administer this module to a woman between 18 and 49 years old, in the absence of which the module could be administered to a man in this same age range. The indicators cover four domains, intrinsic agency, instrumental agency, collective agency, and agency-enabling resources. Intrinsic agency refers to an individual’s inherent capacity to make decisions and pursue goals based on their own values and knowledge; instrumental agency refers to ability of using tools, resources, or strategies to achieve specific objectives; collective agency refers to participation in social groups; and agency-enabling resources refers to the use of external factors, assets, or supports that empower individuals. In addition, we consider time use, though recognize this is often classified as a domain of instrumental agency.

Table 1: Working sample and mean tests of socio-demographic characteristics between households with and without migrants

Interviewed households	1,094		
Male respondent	126		
Female respondent	968		
Migration			
Household had at least one migrant	90	9.3%	
International	51	5.3%	
Domestic	43	4.4%	
	Households with migrants	Households without migrants	
Age – years	44.6	42.4	
Schooling of respondent - years	4.3	5.1	**
Household is indigenous - %	12.2	9.8	
Household size - No. of members	5.5	4.3	***
Income p.c. - in logs	7.3	7.5	**
Connected to power grid - %	93.3	88.4	
Connected to sewage - %	8.9	16.2	*
Connected to water network - %	90.0	86.6	
Located in rural area - %	72.2	72.1	
Number of obs.	90	878	

*Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ for t-test of difference in means between groups.*

Table 2 describes all indicators used in the analysis across all domains, with a brief conceptual definition of each of them in column (2). The alternative indicator column describes the construction of a more primitive indicator under each corresponding domain (when applicable), which we include with the objective of increasing the sensitivity of the indicator to identify any potential changes stemming from the migration of one of the household members. Finally, we construct an index that aggregates all of the individual WEMNS-derived indicators into a single empowerment measure, for which we use the weights in columns (8) and (9), adapted from the WEMNS weights (as not all WEMNS indicators were collected in our survey).

Given that in most households the empowerment module was conducted with women, and considering that combining empowerment indicators for men and for women may not be advisable since the processes linking migration and empowerment arguably differ by gender, the analysis excludes households in which the empowerment section was responded by a man. It is also worth remarking that since we did not collect data on the empowerment of households at baseline, the findings below comparing households with and without migrants only reflect associations, without necessarily implying causality.

Table 3 presents summary statistics for the selected empowerment indicators across the groups of households with and without a migrant. Overall, we see only a few statistically-significant differences between these. A substantially lower proportion of women in households with migrants are empowered in terms of the main self-efficacy indicator in households with migrants, while a higher proportion are empowered in these households in terms of the main group participation and use of financial services indicators.

Table 2: Definition of empowerment indicators

Indicator	Conceptual definition and main indicator	Alternative indicator	WEMNS	pro-WEAI	Other	Weight female respondents	Weight male respondents
Intrinsic agency:							
Endorsement of women's freedom	Believes that every woman has the right to attend school, pursue her preferred livelihood strategies, and use her money as she wishes as demonstrated by fully agreeing with each of a series of five statements regarding women's rights in this domain	Average score across the five statements; where 0=fully disagree, 1=partially disagree, 2=partially agree, 3=fully agree	<input checked="" type="checkbox"/>			0.1364	-
Self-efficacy	Believes that he/she can effectively fulfill a wide range of tasks, even if they are difficult, and achieve important objectives, as demonstrated by agreeing with each of a series of four statements in this domain	Average score across the five statements; where 1=disagree, 2=neither disagree nor agree, 3=agree		<input checked="" type="checkbox"/>		-	-
Instrumental agency:							
Influence over time allocation	Had a lot of influence on how to spend their time on all activities in which they participated in the last 7 days (from among household duties, caring for household members, going to the market to purchase essential items, non-agricultural work activities, agricultural production for sale, and agricultural production for household consumption)	Average influence across all activities in which they participated in the last 7 days; where 1=no influence, 2=some influence, 3=a lot of influence	<input checked="" type="checkbox"/>			0.1364	0.1579
Input over livelihood decisions	Had at least some input over all livelihood decisions (from among crop cultivation, processing, and sales, family huerto familiar, large or medium livestock, poultry and small livestock, non-agricultural income-generating activities, and other income-generating activities)	Average influence across all livelihood decisions; where 1=no influence, 2=some influence, 3=a lot of influence		<input checked="" type="checkbox"/>		-	-
Influence over spending decisions	Had a lot of influence on control over any source of income and over large household purchases	Average influence across both spending decisions; where 1=no influence, 2=some influence, 3=a lot of influence	<input checked="" type="checkbox"/>			0.1364	0.1579
Influence over own health decisions	Had a lot of influence on own healthcare decisions	N/A	<input checked="" type="checkbox"/>			0.1364	0.1579
Control over income (not in WEMNS)	Had at least some control over income stemming from all livelihood decisions (from among crop cultivation, processing, and sales, family huerto familiar, large or medium livestock, poultry and small livestock, non-agricultural income-generating activities, and other income-generating activities)	Average influence over income from all livelihood decisions; where 1=no influence, 2=some influence, 3=a lot of influence		<input checked="" type="checkbox"/>		-	-
Collective agency:							
Participation in organizations	Participated in at least one type of community organization in the last 12 months (from among government councils or agencies, groups that provide local services, formal or informal savings or credit groups, groups related to livelihood activities, and other groups)	Number of community organizations in which respondent participated in the last 12 months, out of a total of five	<input checked="" type="checkbox"/>			0.1364	0.1579
Leadership in organizations	Acted as a leader in at least one type of community organization in the last 12 months (same groups as above)	Number of community organizations in which respondent acted as a leader in the last 12 months, out of a total of five	<input checked="" type="checkbox"/>			0.1364	0.1579
Agency-enabling resources:							
Use of financial services	Has used at least one financial service in the last 12 months	Number of financial services which respondent used in the last 12 months, out of a total of four	<input checked="" type="checkbox"/>			0.0682	0.0789
Access to credit	Believes would be able to take a loan from at least one formal or semi-formal lending source	Number of sources of credit from which respondent would be able to take a loan, out of a total of five	<input checked="" type="checkbox"/>			0.0682	0.0789
Secure property rights	Name listed on ownership document for at least one land parcel or dwelling	N/A	<input checked="" type="checkbox"/>			0.0455	0.0526
Time use							
Sufficient time spent on all activities	Had sufficient time for sleeping and resting, for self-care activities, and for leisure activities in the last 7 days	N/A			<input checked="" type="checkbox"/>	-	-
Sufficient time spent on sleeping	Had sufficient time for sleeping and resting in the last 7 days	N/A			<input checked="" type="checkbox"/>	-	-
Sufficient time spent on self-care activities	Had sufficient time for self-care activities in the last 7 days	N/A			<input checked="" type="checkbox"/>	-	-
Sufficient time spent on leisure activities	Had sufficient time for leisure activities in the last 7 days	N/A			<input checked="" type="checkbox"/>	-	-
12-month change in time spent sleeping	Difference between typical time spent sleeping and resting today versus one year ago, in minutes (winsorized at the 2.5 and 97.5 percentiles)	N/A			<input checked="" type="checkbox"/>	-	-
12-month change in time spent working	Difference between typical time spent in income-generating activities today versus one year ago, in minutes (winsorized at the 2.5 and 97.5 percentiles)	N/A			<input checked="" type="checkbox"/>	-	-
12-month change in time spent on leisure	Difference between typical time spent in leisure activities today versus one year ago, in minutes (winsorized at the 2.5 and 97.5 percentiles)	N/A			<input checked="" type="checkbox"/>	-	-

Both groups of households, however, show low levels of empowerment in the indicators capturing endorsement of women's rights, input in livelihood decisions, control over income, secure property rights and access to credit, with no statistically-significant differences between groups. Finally, both groups report a low proportion of their members as empowered in terms of the indicators eliciting the respondent's influence on spending decisions and leadership in local organizations.

Table 3: Mean tests of empowerment indicators between households with and without migrants

Variables	Households with migrant	Households without migrants	
Intrinsic agency:			
Endorsement of women's freedom - %	71.1	66.7	
Alternative indicator – average score	2.9	2.8	
Self-efficacy - %	38.5	57.1	**
Alternative indicator – average score	2.5	2.6	**
Instrumental agency:			
Influence over time allocation- %	65.9	61.1	
Alternative indicator – average score	2.7	2.6	
Influence over spending decisions- %	35.6	28.6	
Alternative indicator – average score	2.4	2.3	*
Input into livelihood decisions- %	73.5	68.2	
Alternative indicator – average score	2.2	2.1	**
Influence over own health decisions- %	66.7	61.0	
Control over income- %	80.1	79.7	
Alternative indicator – average score	2.3	2.2	**
Collective agency:			
Participation in organizations- %	73.3	62.3	**
Alternative indicator – average score	1.0	0.9	*
Leadership in organizations- %	31.1	24.0	
Alternative indicator – average score	0.4	0.3	
Agency-enabling resources:			
Use of financial services- %	45.6	36.3	*
Alternative indicator – average score	0.8	0.6	**
Access to credit - %	77.3	71.7	
Alternative indicator – average score	1.6	1.4	
Secure property rights - %	76.7	74.3	
Time use			
Sufficient time spent on all activities - %	65.1	68.6	
Sufficient time spent on sleeping - %	80.8	82.2	
Sufficient time spent on self-care activities - %	87.9	92.1	
Sufficient time spent on leisure activities - %	79.5	83.6	
12-month change in time spent sleeping – average change	11.2	4.0	
12-month change in time spent working – average change	-2.3	-7.1	
12-month change in time spent on leisure – average change	-10.4	-1.6	

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ for t-test of difference in means between groups.

Econometric framework

The general framework for the analyses is as follows:

$$Emp_i = \alpha + \beta Mig_i + \gamma X_i + \varepsilon_i$$

where Emp_i is the empowerment outcome (from Table 2) for household i as captured during the follow-up survey, Mig_i are indicator variables capturing whether household i had a migrant, X_i is a vector of controls, and ε_i is a household specific error term. All specifications are estimated via ordinary least squares with robust standard errors.

The term Mig_i represents our treatment in this framework and comprises either one dummy variable capturing whether household i had at least one domestic or cross-border migrant since the baseline survey, or a pair of dummy variables separately capturing whether household i had a domestic or a cross-border migrant in the same period. A third set of dummies include indicators for whether the migrant was the partner of the respondent of the empowerment section, an adult male, an adult female, or a child under 5 years old, since each of these could have different implications for the empowerment of the individuals who stay behind. Since we find no clear effects in the specifications including this set of dummies, we chose to omit them from this note, but the results are available upon request.

A key aspect to consider in this context is which is the most appropriate control group with whom to compare households with migrants. In other words, since the decision to migrate is endogenous, comparing empowerment indicators between households with a migrant and households without a migrant may simply capture underlying differences in empowerment due to selection into migration. We propose three different comparison groups as a way to check for robustness, as follows:

- **Model 1 - Controlling for propensity to migrate:** where all households that did not experience any migration from baseline to follow-up serve as controls, but we include fixed effects by bins of e-MPI and i-MPI scores (i.e. dummies capturing whether the i-MPI/e-MPI for household i is between 30 and 40, 40 and 50, and so on). Including these fixed effects allows us to account for a household's propensity to migrate and thus compare the empowerment of individuals in households with migrants with that in households without migrants but with a similar *ex ante* likelihood to migrate.
- **Model 2 - Compared to households with an unsuccessful attempt to migrate:** where we restrict the sample of households without migrants only to those that reported at follow-up having at least one individual who unsuccessfully attempted to migrate. If the success of an attempt to migrate were to be random (e.g. whether or not a migrant is captured at the border), this control group would be ideal since it compares empowerment between households where the decision to migrate was made but migration "randomly" took place or not. Nevertheless, it is important to clarify that we did not capture an exact definition of what an unsuccessful attempt to migrate represented, and as such these results should be taken with caution since respondents may have different ideas of what this entails.
- **Model 3 - Compared to households similar on observables:** where we include a set of control variables measured at baseline for all households, which is conceptually similar to identifying a match for every household with a migrant amongst all households without a migrant via propensity score matching. In particular, we use as control/matching variables the age and years of schooling of the respondent of the empowerment modules, the size of the household and whether the respondent considers themselves indigenous, the natural logarithm for the total household income from all agricultural and non-agricultural sources, dummy variables for whether the dwelling is

connected to the electrical network, to sewerage, and to the public water network, and dummy variables for the department where the dwelling is located and for whether the location is rural.⁷

Results

This section presents the main results, following the framework outlined in the previous section. Tables 4 through 8 present the coefficients for the migration variables (i.e. our “treatment” indicators) across the three models (Panels A through C) for all the outcomes considered under each of the four empowerment domains and time use. Within each panel, the coefficient for “Had a domestic and/or cross-border migrant” comes from a separate specification than the two coefficients for “Had a cross-border migrant” and “Had a domestic migrant”. All other coefficients are omitted for clarity and space considerations. We present the results in this format to allow for a focus on differences in empowerment indicators stemming from having a migrant across alternative models and outcomes.

Table 4 shows the results related to intrinsic agency. No differences are observed in either of the indicators around the endorsement of women’s freedom across the board. However, when it comes to self-efficacy, we see lower average levels (both across the binary indicator and the average score) among the group of households with a recent migrant relative to those without one, and this seems to be driven by domestic migration specifically. This could potentially be due to a higher burden of household tasks after a household member migrates negatively affecting women’s self-confidence, at least in the short term. All in all, we see no effect or a negative one of migration on intrinsic agency, though one could argue that the type of attitudes and opinions that these indicators are capturing would typically take more time to evolve than the one-year period we are presently analyzing.

Turning to the results related to instrumental agency reported in Table 5, the recent migration of a household member is associated with higher levels of instrumental agency among women in migrant-sending households. In particular, women who stayed behind show more influence over their time allocation, though this is mostly present among those who saw a household member migrate domestically (to another department in Honduras, columns 1 and 2). In contrast, for the remaining indicators, including providing input in livelihood decisions, influence over spending decisions, influence over own health decisions, and control over income, higher levels of empowerment are found related to cross-border migration. It is worth noting that while many coefficients in Model 2 are not statistically significant, this could be related to the much smaller sample size compared to the other models. Indeed, the fact that point estimates remain relatively stable across models within a given outcome seems to support this hypothesis and speaks to the robustness of these results to some extent.

Collective agency indicators, shown in Table 6, also seem to be higher among respondents in households that experienced an instance of cross-border migration, with effects that are of even larger magnitude than the ones for the instrumental agency indicators (relative to the comparison group). In other words, women who stayed behind in households with a recent cross-border migrant are much more likely to participate in and lead organizations and do so in a larger number of them. While such an association could simply indicate that wealthier households tend to be more connected within the community and have a higher propensity to migrate, the fact that this difference is even larger in Model 2—which compares against households with an unsuccessful attempt to migrate—seems to support a causal interpretation of this evidence.

Table 4: Empowerment indicators related to intrinsic agency

	(1)	(2)	(3)	(4)
	Endorsement of women's freedom	Endorsement of women's freedom (alt.)	Self-efficacy	Self-efficacy (alt.)
Panel A. Controlling for propensity to migrate (i.e. with MPI fixed effects)				
Had a domestic and/or cross-border migrant	0.026 (0.050)	0.010 (0.025)	-0.165*** (0.057)	-0.116* (0.063)
Had a cross-border migrant	0.027 (0.063)	0.032 (0.024)	-0.084 (0.074)	-0.074 (0.084)
Had a domestic migrant	0.000 (0.073)	-0.016 (0.044)	-0.267*** (0.073)	-0.208** (0.088)
Number of observations	968	968	930	930
MPI fixed effects	Yes	Yes	Yes	Yes
Other controls and department fixed effects	No	No	No	No
Dependent var. mean in the control group	0.667	2.867	0.571	2.652
Panel B. Compared to households with an unsuccessful attempt to migrate				
Had a domestic and/or cross-border migrant	0.102 (0.087)	0.037 (0.043)	-0.228** (0.092)	-0.209** (0.083)
Had a cross-border migrant	0.092 (0.093)	0.061 (0.039)	-0.140 (0.094)	-0.179* (0.102)
Had a domestic migrant	0.035 (0.099)	0.001 (0.052)	-0.345*** (0.091)	-0.330*** (0.104)
Number of observations	136	136	127	127
MPI fixed effects	No	No	No	No
Other controls and department fixed effects	No	No	No	No
Dependent var. mean in the control group	0.609	2.848	0.614	2.727
Panel C. Compared to households similar on observables (i.e. matching)				
Had a domestic and/or cross-border migrant	0.056 (0.052)	0.014 (0.027)	-0.138** (0.054)	-0.105* (0.058)
Had a cross-border migrant	0.063 (0.066)	0.034 (0.026)	-0.089 (0.071)	-0.101 (0.081)
Had a domestic migrant	0.018 (0.075)	-0.014 (0.046)	-0.202*** (0.070)	-0.148** (0.074)
Number of observations	963	963	925	925
MPI fixed effects	No	No	No	No
Other controls and department fixed effects	Yes	Yes	Yes	Yes
Dependent var. mean in the control group	0.667	2.866	0.573	2.653

Table 5: Empowerment indicators related to instrumental agency

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Influence over time allocation	Influence over time allocation (alt.)	Input into livelihood decisions	Input into livelihood decisions (alt.)	Influence over spending decisions	Influence over spending decisions (alt.)	Influence over own health decisions	Control over income	Control over income (alt.)
Panel A. Controlling for propensity to migrate (i.e. with MPI fixed effects)									
Had a domestic and/or cross-border migrant	0.022 (0.054)	0.080 (0.066)	0.064 (0.051)	0.215*** (0.079)	0.065 (0.054)	0.088 (0.062)	0.056 (0.052)	0.014 (0.046)	0.168** (0.074)
Had a cross-border migrant	-0.036 (0.072)	-0.011 (0.094)	0.145** (0.058)	0.285*** (0.092)	0.145** (0.072)	0.216*** (0.077)	0.077 (0.066)	0.073 (0.052)	0.239*** (0.085)
Had a domestic migrant	0.090 (0.071)	0.188*** (0.071)	-0.037 (0.078)	0.075 (0.120)	-0.052 (0.067)	-0.068 (0.084)	0.007 (0.076)	-0.061 (0.071)	0.024 (0.115)
Number of observations	953	953	930	928	968	967	968	930	928
MPI fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Other controls and department fixed effects	No	No	No	No	No	No	No	No	No
Dependent var. mean in the control group	0.612	2.591	0.682	2.058	0.286	2.275	0.610	0.797	2.184
Panel B. Compared to households with an unsuccessful attempt to migrate									
Had a domestic and/or cross-border migrant	0.181** (0.090)	0.246** (0.124)	-0.015 (0.082)	0.066 (0.129)	0.116 (0.081)	0.063 (0.096)	0.036 (0.087)	-0.034 (0.071)	0.036 (0.112)
Had a cross-border migrant	0.111 (0.098)	0.148 (0.132)	0.090 (0.083)	0.175 (0.133)	0.201** (0.090)	0.220** (0.098)	0.065 (0.092)	0.037 (0.073)	0.133 (0.119)
Had a domestic migrant	0.218** (0.098)	0.321*** (0.114)	-0.121 (0.095)	-0.132 (0.151)	-0.040 (0.087)	-0.108 (0.104)	-0.046 (0.100)	-0.114 (0.086)	-0.161 (0.139)
Number of observations	134	134	127	127	136	136	136	127	127
MPI fixed effects	No	No	No	No	No	No	No	No	No
Other controls and department fixed effects	No	No	No	No	No	No	No	No	No
Dependent var. mean in the control group	0.478	2.458	0.750	2.178	0.239	2.315	0.630	0.841	2.299
Panel C. Compared to households similar on observables (i.e. matching)									
Had a domestic and/or cross-border migrant	0.068 (0.055)	0.129* (0.070)	0.079 (0.053)	0.203** (0.083)	0.093* (0.054)	0.122* (0.064)	0.082 (0.053)	0.030 (0.047)	0.179** (0.078)
Had a cross-border migrant	0.027 (0.073)	0.061 (0.099)	0.165*** (0.059)	0.309*** (0.099)	0.189*** (0.073)	0.265*** (0.076)	0.120* (0.066)	0.097* (0.050)	0.294*** (0.089)
Had a domestic migrant	0.113 (0.073)	0.206*** (0.071)	-0.036 (0.082)	0.005 (0.128)	-0.059 (0.069)	-0.072 (0.088)	0.006 (0.078)	-0.056 (0.073)	-0.023 (0.122)
Number of observations	948	948	925	923	963	962	963	925	923
MPI fixed effects	No	No	No	No	No	No	No	No	No
Other controls and department fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dependent var. mean in the control group	0.612	2.591	0.681	2.055	0.285	2.275	0.611	0.796	2.182

Table 6: Empowerment indicators related to collective agency

	(1)	(2)	(3)	(4)
	Participation in organizations	Participation in organizations (alt.)	Leadership in organizations	Leadership in organizations (alt.)
Panel A. Controlling for propensity to migrate (i.e. with MPI fixed effects)				
Had a domestic and/or cross-border migrant	0.080 (0.050)	0.122 (0.099)	0.070 (0.052)	0.100 (0.078)
Had a cross-border migrant	0.138** (0.060)	0.288** (0.139)	0.164** (0.071)	0.247** (0.116)
Had a domestic migrant	0.019 (0.071)	-0.037 (0.118)	-0.013 (0.064)	-0.037 (0.082)
Number of observations	968	968	968	968
MPI fixed effects	Yes	Yes	Yes	Yes
Other controls and department fixed effects	No	No	No	No
Dependent var. mean in the control group	0.629	0.877	0.240	0.296
Panel B. Compared to households with an unsuccessful attempt to migrate				
Had a domestic and/or cross-border migrant	0.233*** (0.088)	0.349** (0.151)	0.072 (0.080)	0.117 (0.109)
Had a cross-border migrant	0.275*** (0.085)	0.514*** (0.171)	0.201** (0.091)	0.305** (0.136)
Had a domestic migrant	0.177* (0.091)	0.217 (0.157)	0.004 (0.087)	0.007 (0.114)
Number of observations	136	136	136	136
MPI fixed effects	No	No	No	No
Other controls and department fixed effects	No	No	No	No
Dependent var. mean in the control group	0.500	0.696	0.239	0.283
Panel C. Compared to households similar on observables (i.e. matching)				
Had a domestic and/or cross-border migrant	0.086* (0.052)	0.140 (0.100)	0.076 (0.053)	0.110 (0.079)
Had a cross-border migrant	0.140** (0.063)	0.287** (0.140)	0.167** (0.073)	0.252** (0.117)
Had a domestic migrant	0.030 (0.073)	-0.001 (0.120)	-0.006 (0.064)	-0.026 (0.085)
Number of observations	963	963	963	963
MPI fixed effects	No	No	No	No
Other controls and department fixed effects	Yes	Yes	Yes	Yes
Dependent var. mean in the control group	0.628	0.874	0.239	0.294

A similar pattern is observed among empowerment indicators related to agency-enabling resources reported in Table 7, with substantially higher reported levels of usage of financial services among households with recent cross-border migrants, particularly in terms of magnitude (when compared to the average levels among the control group). This difference is much smaller, however, when it comes to the access to credit indicators and indistinguishable from zero for the property rights indicator. Both of these results are consistent with expectations, since higher access to credit also relates to indebtedness (a

problem which may be reduced after migration of a household member and the subsequent inflow of remittances) and changes in property rights can take considerably longer to evolve.

Table 7: Empowerment indicators related to agency-enabling resources

	(1) Use of financial services	(2) Use of financial services (alt.)	(3) Access to credit	(4) Access to credit (alt.)	(5) Property rights
Panel A. Controlling for propensity to migrate (i.e. with MPI fixed effects)					
Had a domestic and/or cross-border migrant	0.067 (0.054)	0.203* (0.116)	0.059 (0.048)	0.198 (0.173)	-0.003 (0.047)
Had a cross-border migrant	0.209*** (0.068)	0.444*** (0.150)	0.093* (0.056)	0.456** (0.232)	0.041 (0.057)
Had a domestic migrant	-0.114 (0.071)	-0.107 (0.153)	0.004 (0.073)	-0.120 (0.225)	-0.058 (0.070)
Number of observations	968	968	939	939	967
MPI fixed effects	Yes	Yes	Yes	Yes	Yes
Other controls and department fixed effects	No	No	No	No	No
Dependent var. mean in the control group	0.363	0.556	0.717	1.404	0.743
Panel B. Compared to households with an unsuccessful attempt to migrate					
Had a domestic and/or cross-border migrant	0.108 (0.088)	0.311* (0.164)	0.017 (0.079)	0.425* (0.235)	0.049 (0.081)
Had a cross-border migrant	0.266*** (0.094)	0.583*** (0.186)	0.071 (0.080)	0.746** (0.286)	0.083 (0.083)
Had a domestic migrant	-0.095 (0.094)	-0.046 (0.181)	-0.057 (0.091)	0.001 (0.276)	-0.008 (0.091)
Number of observations	136	136	133	133	136
MPI fixed effects	No	No	No	No	No
Other controls and department fixed effects	No	No	No	No	No
Dependent var. mean in the control group	0.348	0.478	0.756	1.200	0.717
Panel C. Compared to households similar on observables (i.e. matching)					
Had a domestic and/or cross-border migrant	0.116** (0.055)	0.298*** (0.108)	0.061 (0.047)	0.175 (0.172)	-0.006 (0.045)
Had a cross-border migrant	0.260*** (0.069)	0.520*** (0.133)	0.079 (0.055)	0.417* (0.235)	0.037 (0.055)
Had a domestic migrant	-0.080 (0.074)	-0.014 (0.153)	0.020 (0.070)	-0.139 (0.218)	-0.066 (0.067)
Number of observations	963	963	934	934	962
MPI fixed effects	No	No	No	No	No
Other controls and department fixed effects	Yes	Yes	Yes	Yes	Yes
Dependent var. mean in the control group	0.363	0.556	0.717	1.403	0.743

Finally, despite the apparent changes in empowerment after migration described above and the findings in the (fairly limited) literature on changes in time allocation within the household after migration, we do not observe significant changes in time use indicators. As shown in Table 8, we do not find variations either in terms of actual time spent sleeping and resting, or in self-care or leisure activities, or in the respondent's perception on whether the time currently spent on these activities is sufficient.

Table 8: Indicators related to time use

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Sufficient time spent on all activities	Sufficient time spent on sleeping	Sufficient time spent on self-care activities	Sufficient time spent on leisure activities	12-month change in time spent sleeping	12-month change in time spent working	12-month change in time spent on leisure
Panel A. Controlling for propensity to migrate (i.e. with MPI fixed effects)							
Had a domestic and/or cross-border migrant	-0.039 (0.056)	0.018 (0.046)	0.032 (0.037)	0.037 (0.047)	9.095 (7.272)	-0.250 (6.011)	-2.891 (2.419)
Had a cross-border migrant	-0.120 (0.076)	0.012 (0.060)	0.013 (0.047)	0.064 (0.065)	14.264 (8.845)	2.454 (5.664)	0.578 (3.279)
Had a domestic migrant	0.046 (0.073)	0.001 (0.060)	0.032 (0.051)	0.030 (0.064)	2.079 (10.669)	-2.583 (10.180)	-4.968 (3.516)
Number of observations	930	928	930	930	930	930	930
MPI fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Other controls and department fixed effects	No	No	No	No	No	No	No
Dependent var. mean in the control group	0.686	1.178	1.079	1.169	1.945	-6.308	0.170
Panel B. Compared to households with an unsuccessful attempt to migrate							
Had a domestic and/or cross-border migrant	0.219** (0.092)	-0.103 (0.082)	-0.016 (0.063)	-0.159* (0.092)	14.752 (13.011)	-4.376 (11.421)	-2.101 (2.755)
Had a cross-border migrant	0.083 (0.103)	-0.097 (0.082)	-0.034 (0.063)	-0.079 (0.100)	17.423 (13.114)	-0.457 (10.050)	2.590 (3.946)
Had a domestic migrant	0.264*** (0.100)	-0.123 (0.082)	-0.019 (0.066)	-0.127 (0.099)	8.465 (14.265)	-4.813 (12.472)	-3.553 (4.106)
Number of observations	127	127	127	127	127	127	127
MPI fixed effects	No	No	No	No	No	No	No
Other controls and department fixed effects	No	No	No	No	No	No	No
Dependent var. mean in the control group	0.432	1.295	1.136	1.364	-4.909	1.364	-0.682
Panel C. Compared to households similar on observables (i.e. matching)							
Had a domestic and/or cross-border migrant	-0.018 (0.058)	0.001 (0.047)	0.033 (0.039)	0.020 (0.048)	7.696 (7.748)	5.163 (6.269)	-2.575 (2.316)
Had a cross-border migrant	-0.113 (0.077)	0.002 (0.061)	0.009 (0.051)	0.052 (0.066)	11.772 (9.134)	7.940 (6.420)	0.959 (3.241)
Had a domestic migrant	0.088 (0.075)	-0.028 (0.065)	0.039 (0.054)	0.005 (0.065)	2.277 (11.714)	2.067 (10.382)	-4.736 (3.445)
Number of observations	925	923	925	925	925	925	925
MPI fixed effects	No	No	No	No	No	No	No
Other controls and department fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dependent var. mean in the control group	0.684	1.178	1.079	1.170	1.954	-6.350	0.100

Conclusions

This note examines the association between domestic and/or cross-border migration and the empowerment of women in the household who stay behind, using a sample of households in Western Honduras that were followed over two survey rounds in 2023 and 2024. We focus on the differences in empowerment indicators among women for whom household members migrated (either domestically or internationally) in the past 12 months and those for whom nobody migrated. Since empowerment data was collected after the migration event took place, we cannot observe empowerment levels before migration, thus limiting any causal interpretation of our findings. To still account for likely selection on migration decisions, we explore three alternative models, comparing empowerment in households with migrants with those with a similar *ex ante* propensity to migrate; with those who reported an unsuccessful migration attempt by someone in their household; and with households without migrants that were similar on observable characteristics at baseline (before the migration event took place).

The results indicate that a household member migrating is not correlated with a positive change on women's intrinsic agency nor an increase in self-reported time use, but it shows a positive correlation with instrumental agency, collective agency, and use of financial services (part of the agency-enabling resources domain). With the exception of time use, where we expected to find clearer evidence of increased workload among women who stayed behind after someone migrates in the household, the findings make sense, since a need to continue the household's economic and social activities should naturally increase instrumental and collective agency among those who did not migrate, with any potential effects on intrinsic agency taking longer to materialize.

Future work will examine the observed associations in more detail and attempt to formally uncover causal relationships. In early 2025, we will conduct an additional survey round among the same panel of households, where we will collect the same set of empowerment indicators. This will allow us to compute empowerment differences within the same individual, and compare these changes with their household's recent migration history. Such a difference-in-differences approach with household fixed effects will arguably allow for a causal interpretation of any findings.

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ENDNOTES

¹ Hernandez et al. (2022) similarly performed an out-of-sample validation of the e-MPI for Guatemala among a panel of households followed over two years between 2020 and 2021-22.

² Since sampling was conducted with replacement, the number of aldeas and caseríos (barrios) selected within each municipality (aldea) is not exactly 5 (2) in practice, but rather fluctuates around these numbers.

³ The EPI method has many variants, but it can be loosely described as follows. In a selected community, (i) select a location near the centre of the community, (ii) choose a random direction (often defined in the field by spinning a bottle or pen), and (iii) identify a random household along the chosen direction pointing outwards from the centre of the community to its boundary. In subsequent steps, the procedure above is repeated, identifying a new household in each iteration until the required number of households is surveyed.

⁴ These locations were manually checked against satellite imagery to ensure they fell near a structure. In the cases where they did not, a new random replacement location was drawn.

⁵ Overall, this procedure worked quite well in practice, with little to no complications reported from enumerators, with only a few exceptions.

⁶ WEMNS was developed by IFPRI, Emory University, and the Living Standards and Measurement Study Team at the World Bank, see Seymour et al. (2024). Pro-WEAI was developed collaboratively with 13 agricultural development projects in Africa and South Asia as part of the Gender, Agriculture, and Assets Project, Phase 2, see Malapit et al. (2019).

⁷ Since an official community-level rural-urban classification is not available in Honduras, we overlay household GPS coordinates with GHS-SMOD raster data, which relies on a harmonized global definition based on a combination of population size and population density to define the degree of urbanization of 1km. x 1km. pixels (see Schiavina et al., 2023). In particular, we consider households falling in GHS-SMOD pixels classified as “Very low density rural”, “Low density rural”, or “Rural cluster” as being rural, and those classified as “Suburban or peri-urban”, “Semi-dense urban”, “Dense urban”, or “Urban” as being peri-urban/urban.

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