

Female Labor Participation and Migration Family Strategies in Mexico

**--El trabajo se reescribirá en Español,
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Introduction

Assuming that migration is a family decision linked with the availability of resources, the division of labor and the distribution of responsibilities within the household, our research analyze (1) if the female labor participation modifies the couple's probabilities of migrating and the type of migration (solo or couple) and (2) if the current migration status affects the female participation in economic activities (whether it stimulates to be in or out the labor force).

During the last three decades, two central social processes have taken place in Mexico: (1) a rapid increase of the female participation in the labor force and (2) the growth of migration to U.S., that incorporated new actors –like women. Both processes can be seen as families' strategies that potentiate the household's economic and social mobility or that ensure the household's economic maintenance in the short term.

Additionally, previous research have suggest that entry into the labor market changes woman position within the household and potentially allows her to participate more in making decisions within the household (such as the migration of one member of the family). Thus, our interest is to study both processes –husband or wife migration events decisions or female labor participation –as interconnected.

One of the paper contributions is that our methodological approximation allows us to link the individual histories of the couple and to hypothesize about how family decisions are made on international migration and female labor.

Methodological Approach and Data Sources

The joint analysis of migration trajectories for both spouses and the labor history of the wife require a longitudinal approximation that show year by year the changes in the woman labor status (in or out of the labor market) and if a migration to U.S. or to Mexico occurred, depending on the residence place in a given year. For the analysis, we reconstruct the life histories of the couple using retrospective data from the Mexican Migration Project. This database retrieves the complete histories of the household head and spouse in 93 communities distributed in various states of Mexico¹. The selected communities include regions with different experiences of migration (traditional migration communities and those recently incorporated in migration to the U.S.), different levels of urbanization and economic development (see Table 1). In most cases, the survey includes a sample of 200 households selected by simple sampling techniques. In the case of urban areas, the samples were taken in specific traditional or well-established neighborhoods characterized for having low incidence of migration from rural areas. To the sample of households in Mexico joins a nonrandom subsample of ten to twenty homes in the United States made up of migrants from the same community of origin. The interviews of the 93 communities included in the analysis were conducted between 1994 and 2009.

¹. The database has currently information of 128 communities. However, complete information about both spouses required for the analysis was only available for 93 communities –from the community 33. The full description of the database can be consult in <http://mmp.opr.princeton.edu>.

Changes in migration patterns base on the female labor participation

To explore the extent to which female labor participation influence migration decisions of the couple, we estimate three discrete-time models for the probability of migrating depending on the residence situation at the beginning of the person-year. The models are estimated only for the states of residence and migratory movements with sufficient observations (see Figure 1 and Table 3 for preliminary results of the models). To assess the influence of female employment variables three indicators were used: whether the woman had premarital labor experience, if she worked or not in the previous year and the post-marital cumulative labor experience. The models include sociodemographic variables and migration experience of both spouses, variables related to family life cycle, homogamy and community's characteristics (see Table 2 for descriptive statistics of the independent variables).

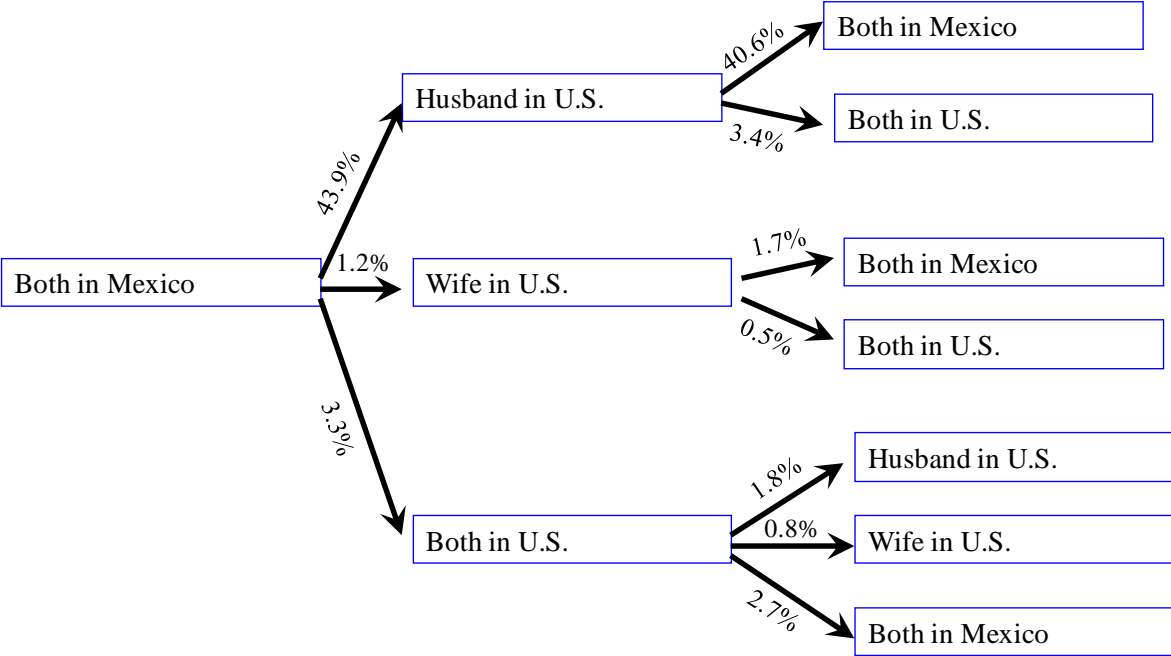
At the moment, we are analyzing these results and running models to estimate the probability that the wife changes her labor situation depending on the migration status of the couple.

Table 1. Characteristics of Mexican Communities sampled, Mexican Migration Project

Migration Region/Type of community	Number of communities sampled	Number of households sampled	Proportion with U.S. migration experience		Proportion of women employed (15-64)
			Men	Women	
<i>Historical</i>					
Metropolitan area	7	1,470	12.82	4.15	34.83
City	9	1,683	37.68	11.90	32.12
Town	11	2,054	28.30	6.08	30.68
Rural	14	1,520	47.80	11.84	22.69
<i>Border</i>					
Metropolitan area	10	1,633	14.23	6.60	37.05
City	2	348	29.18	6.36	27.50
Town	4	618	16.21	6.94	29.10
Rural	1	100	24.29	2.33	23.53
<i>Central</i>					
Metropolitan area	4	808	5.62	1.93	31.48
City	4	809	20.06	4.29	32.62
Town	7	1,106	17.40	3.02	28.38
Rural	8	1,156	22.43	4.50	28.20
<i>Southeast</i>					
Metropolitan area	1	222	11.53	2.60	39.62
City	1	201	17.36	2.81	29.74
Town	5	694	14.09	0.64	31.29
Rural	5	639	19.31	2.08	21.33
Total sample size	93	15,061			

Source: Authors' estimations based on the Mexican Migration Project, communities 33 to 128.

Figure 1. Distribution of migration events (transitions) across couple-states in the life-year histories of married Mexican couples



Source: Authors' estimations based on the Mexican Migration Project, communities 33 to 128.

Table 2. Descriptive statistics for selected variables, Mexican married couples, Mexican Migration Project

Variable	Mean or distribution
Husband's and wife's characteristics:	
Husband's years of schooling	7.2
Wife's years of schooling	7.0
Husband's occupation ^a	
Not working	1.8%
Agriculture	29.9%
Unskilled	16.3%
Skilled	26.0%
Professional	6.9%
Land or business owner	19.0%
Wife's premarital labor experience	44.0%
Female labor participation the year before ^a	20.2%
Post-marital cumulative months of female labor participation ^a	148.8
Couple's migration experience	
Husband premarital U.S. experience	15.6%
Husband post-marital cumulative months U.S. experience ^a	8.7
Wife premarital U.S. experience	2.8%
Wife post-marital cumulative months U.S. experience ^a	2.6
Couple's characteristics	
Age difference between spouses	3.6
At least one son born in U.S. ^a	2.4%
At least one son under twelve years old in the household ^a	77.4%
Communities' characteristics	
Urbanization level	
Metropolitan area	26.9%
City	20.2%
Town	30.2%
Rural	22.7%
Migration Region	
Historical	46.1%
Border	17.6%
Central	23.7%
Southeast	12.7%
Male migration prevalence to U.S. ^a	0.21
Prevalence of female migration to U.S. ^a	0.06
Proportion of employed women ^a	0.20
Period (categorical)^a	
Before 1987	36.4%
1987-1996	38.2%
1997-2009	25.3%

Source: Authors' estimations based on the Mexican Migration Project, communities 33 to 128.

^aTime varying variables, all other variables are time-invariant

Figure 2. Proportion of women employed by migration experience and age group. Mexico

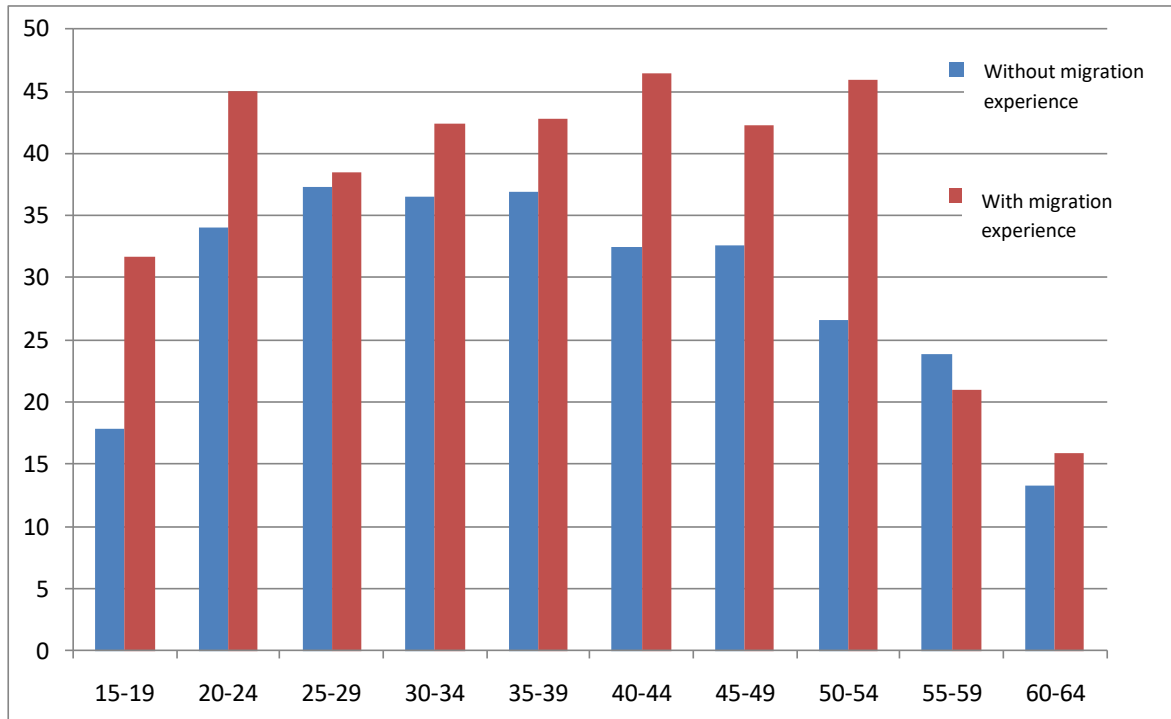


Table 3. Parameter estimates from multinomial discrete-time hazard models predicting U.S. migration and return migration from U.S. to Mexico, Mexican Migration Project

Variables	Model 1 Both in Mexico		Model 2 Husband in U.S.		Model 3 Both in U.S.	
	Husband U.S. migrant	Couple U.S. migrants	Husband returns to Mexico	Wife joins husband in U.S.	Couple returns to Mexico	Wife returns to Mexico
	Estimation	Estimation	Estimation	Estimation	Estimation	Estimation
Husband's and wife's characteristics:						
Husband's years of schooling	-0.009	0.056 **	-0.032 **	-0.010	-0.058 **	0.006
Wife's years of schooling	-0.013	-0.022	0.005	0.029	-0.049	0.035
Husband's occupation ^{a,b}						
Not working	0.050	1.220 **	1.059 **	0.429	-0.483	0.695
Unskilled	1.265 ***	1.551 ***	-1.544 ***	0.315 *	-2.241 ***	-0.139
Skilled	0.396 ***	0.886 ***	-0.802 ***	0.263	-1.550 ***	-0.055
Professional	-1.745 ***	-2.867 **	0.523 *	0.321	1.005 *	0.529
Land or business owner	0.076	0.235	-0.179 *	-0.376	-0.481	0.465
Wife's premarital labor experience ^c	-0.064	-0.144	-0.118 *	-0.026	-0.352	-0.360
Female labor participation the year before ^{a,d}	-0.138 **	-0.103	-0.043	0.236	-0.243	-0.167
Post-marital cumulative months of female labor participation ^a	0.002 ***	-0.001	0.002 ***	-0.004 ***	0.003	0.002
Cohort ^e						
1940 - 1950	0.135	-0.075	0.302	0.831	-1.304	-0.348
1950 - 1960	0.249	0.434	0.156	0.494	-0.655	-0.022
1960 - 1970	0.427 **	0.626	0.267	0.707	-0.546	0.143
After 1970	0.495 **	0.488	0.144	0.794	-0.198	0.566
Spell	-0.188 ***	-0.161 ***	-0.456 ***	-0.131 ***	-0.122	0.869 **
Spell ²	0.003 ***	0.004 ***	0.013 ***	0.003 **	0.010 ***	0.009 ***
Couple's migration experience						
Husband premarital U.S. experience ^f	0.525 ***	0.920 ***	-0.062	0.443 ***	-0.579 **	-0.376
Husband post-marital cumulative months U.S. experience ^a	0.011 ***	0.012 ***	-0.006 ***	0.004 **	-0.008 **	0.009 ***
Wife premarital U.S. experience ^f	0.188	0.593 *	-0.183	-0.145	0.128	0.222
Wife post-marital cumulative months U.S. experience ^a	-0.015 ***	0.002	-0.009 **	0.005 **	-0.009	-0.108 ***

(Continued)...

Couple's characteristics						
Age difference between spouses	-0.050 ***	-0.043 ***	-0.015 *	-0.016	0.011	-0.007
At least one son born in U.S. ^{a g}					-0.450 **	-0.516 **
At least one son under twelve years old in the household ^{a g}	0.585 ***	-0.547 ***	0.238 ***	-0.783 ***	0.269	0.693 **
Communities' characteristics						
Urbanization level ^h						
Metropolitan area	-0.807 ***	-0.110	-0.409 ***	-0.308	-0.287	1.888 ***
City	-0.253 ***	-0.096	0.127	0.245	0.159	0.122
Town	-0.371 ***	-0.332	0.316 ***	0.454 **	-0.057	-0.351
Male migration prevalence to U.S. ^a	3.455 ***	2.093 ***	-1.578 ***	-1.397 ***	-0.354	2.872 **
Prevalence of female migration to U.S. ^a	-2.833 ***	2.346 ***	2.506 ***	5.587 ***	-1.883	-2.234
Proportion of employed women ^a	-1.338 ***	-1.012	0.945 **	0.538	1.881 *	-4.297 ***
Period^{a i}						
1987-1996	0.011	0.315	-0.084	0.123	-0.281	-0.479
1997-2009	0.463 ***	-0.311	0.013	-0.276	0.394	-0.198
Constant	-22.5 ***	-7.041 ***	0.964 ***	-3.694 ***	1.438	-2.747 ***
Wald Chi-Square	3905.16		1664.34		440.35	
Pseudo R ²	0.188		0.204		0.217	
Number of couple-years	166713		10361		3773	

Source: Authors' estimations based on the Mexican Migration Project, communities 33 to 128.

Significance level: * p < 0.10, ** p < 0.05, *** p < 0.01

^a Time varying variables, all other variables are time-invariant

^b Reference category: Agriculture

^c Reference category: Without experience

^d Reference category: Not working

^e Reference category: Before 1940

^f Reference category: Without experience

^g Reference category: Without a son under twelve years old in the household

^h Reference category: Rural

ⁱ Reference category: Before 1987

Table 4. Proportion of women who change her labor status during the couple year by migration movements. Mexican Migration Project

Both in Mexico			
	Husband U.S. migrant n=3,311		Couple U.S. migrants n=253
Labor status previous year:			
Not working	2.7 (83.3)		46.0 (80.9)
Working	10.6 (16.7)		43.8 (19.1)
Husband in U.S.			
	Husband returns to Mexico n=3,084		Wife joins Husband in U.S. n=272
Labor status previous year:			
Not working	2.3 (81.9)		37.6 (74.2)
Working	14.0 (18.1)		55.1 (25.8)
Both in U.S.			
	Couple returns to Mexico n=205		Wife returns to Mexico n=137
Labor status previous year:			
Not working	14.7 (58.4)		8.8 (53.2)
Working	85.3 (41.6)		70.2 (46.8)

Note: Numbers in parenthesis indicate women distribution by participation in economic activities (working and not working) in the year of migration event.