

Internal and Return Mobility Patterns among Mexico-US Migrants in Historical Perspective

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ABSTRACT

The mobility patterns of Mexicans in US all throughout the XXth Century to date vary in time and depend on the personal attributes of migrants. Using longitudinal data from the Mexican Migration Project, we describe the residential changes (internal or return migration) of Mexican men after their first arrival to US and how they vary by migration stage (Braceros, pre-IRCA and post-IRCA). We estimate discrete-time logistic models to analyze how the probabilities of either type of movement vary by time since arrival, documentation status and occupation in US. We include macroeconomic indicators to capture how the patterns and profiles change according to the economic trends. The Bracero period showed the highest probabilities of moving to another state or of returning. Working in the agricultural sector and the documentation status are related to specific mobility patterns; the first effect is constant in time and the second varies by migration stage.

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INTRODUCTION

The mobility patterns of Mexicans in US all throughout the XXth Century to date vary in time and depend on the personal attributes of migrants in interaction with the specific political and economic context. In order to elucidate these patterns, this paper has two main objectives. First, we describe the residential changes of Mexican men migrating to the US between 1942 and 2011 and how they vary by direction (internal or return migration), by time since arrival and by migration stage (Bracero, pre-IRCA and post-IRCA). Prior research has extensively documented that during this period the duration of stay in the US for Mexican migrants increased as well as the probabilities of settlement (Douglas, Durand & Malone, 2009). Less attention has been given to the patterns of mobility within the US of Mexican migrants after their first arrival to the US. Furthermore, in spite of the increase in settlement, there has always remained a constant flow of migrants returning to Mexico. We assume that migration policies, economic swings in the US and the consolidation of a large Mexican community have had an impact on the mobility patterns of migrants.

Second, at the individual level, we analyze how the documented status and the occupation in the US are linked to different types of mobility (no mobility, internal, return migration). These two factors have been widely proven to be determinants of migration

¹ There is a complete preliminary version of this paper in Spanish. If accepted to be presented at PAA, the final version will be translated into English.

patterns (Massey & Espinosa, 1997; Kritz & Gurak, 2000; Durand & Massey, 2003; Zuñiga & Hernandez, 2006). In this particular study we compare their influence over the decision of moving within the US or returning to Mexico. Again, we expect a period effect as the impact of being undocumented or working in the agricultural sector may have changed in time.

BACKGROUND

Prior research has focused on the determinants and theoretical explanations of both interstate and (Kritz & Gurak, 2000) return migration (Massey & Espinosa, 1997; Lindstrom, 1996, Massey, Durand & Riosmena, 2006). Macroeconomic conditions, occupation and documentation status appear frequently in these analysis as related to specific mobilities. For example, Zuñiga & Hernandez (2006) suggest that IRCA's regularizations in 1986 allowed the dispersion of migrants who received documents along the United States. Also agricultural workers are expected to have a higher propensity to move if they follow the harvests (Durand & Massey, 2003). Finally, there is evidence that economic crisis at the state level (for example, California in the nineties and, more recently, Arizona) push migrants to other states in search of better job opportunities.

One of the main interests of this paper is to capture the period effects using the different migration stages, as they are expected to be among the main determinants of the mobility strategies chosen by Mexican migrants after arriving to the US. Migration stages allow us to approach to how changes in the immigration policies result in different types of mobilities (Durand & Massey, 2003; Zolberg, 2006; Alarcón 2011).

DATA AND METHODS

To fulfill the goals of this paper, we use a longitudinal perspective based on data from the Mexican Migration Project (MMP).² The MMP gathers retrospective data in 134

² *"The Mexican Migration Project (MMP) was created in 1982 by an interdisciplinary team of researchers to further our understanding of the complex process of Mexican migration to the United States. The project is a*

communities in Mexico. We use the migration stories of 22,279 men who were heads of the household at the moment of the survey. Of this total, 6,818 had moved to the US at least once. With this data, we look at the mobility patterns of Mexican men fifteen years of age and older who arrived in the US between 1942 and 2011.³ We allow for two different possible events after their first trip (see Figure 1): move to another state (different from the State of arrival) and return to Mexico. Because MMP did not ask for the specific state of residence while in the US, in order to capture the interstate mobility we used the variable JOBSTATE (state of job during a person year). We looked at the probabilities of working in a different state from the one in the prior year. For the models, all the time-varying variables (age, age squared, education, marital status, migration state and duration) were lagged one year.

We conduct two different analyses. First, we do a descriptive analysis of the mobility patterns of Mexican men in the US and how they vary by direction (internal or return migration), time since arrival (time in a specific state since they got their first job) and migration stage (Bracero, pre-IRCA and post-IRCA). We use hazard and survival functions to describe the probabilities of either migration during the first five years in US, period that concentrates most of the events (more than 85%).

Second, we estimate discrete-time multinomial logistic models of the first mobility since they got their first job in US. The dependent variable has three possible outcomes: no mobility, interstate mobility and return migration. The independent variables include documentation status, occupation in US, macroeconomic indicators (US employment growth) and migration stage. Finally the control variables are time since arrival, age, education and civil status (see Table I with the description of the variables).

binational research effort co-directed by Jorge Durand, professor of Social Anthropology at the University of Guadalajara (Mexico), and Douglas S. Massey, professor of Sociology and Public Affairs at Princeton University (US)." MMP Website.

³ MMP gathers the migration story of the heads of the household, who are predominantly men. More recently, the study started collecting retrospective data of the spouses, adding more women to the sample. For this research, we decided to study only the sample of male household heads because it covers a longer period and because we assume that the mobility patterns of men and women migrants to the US may differ.

SYNTHESIS OF PRELIMINARY MAIN RESULTS⁴

Our preliminary analysis suggested that the highest probabilities of moving to another state or of returning in the first year were observed during the Bracero period (Graph I and II). Interestingly, the interstate mobility in this stage is also very high compared to the other analyzed stages (pre-IRCA and post-IRCA). This greater mobility could be explained by the high concentration of migrants in agricultural activities (85.5%) and with a documented status (69.2%) (Table II). Being documented during the Bracero period allowed for a higher internal mobility. Also, the multivariate analysis showed that the probabilities of an internal migration double when migrants are occupied in the agricultural sector (Table III).

Second, we explored the changes in time (by migration stage). The effect of occupation in the US on the probabilities of moving internally is constant in time across the migration stages. Regarding the documentation status, the direction and magnitude of the effect of an internal movement varies in time. During the Bracero period it is clear that being undocumented deterred internal migration (Table III), nonetheless we must recall that the proportion of migrants who entered the US without documents is notoriously lower compared to the other periods (30.8%) probably representing a population with different characteristics from those undocumented in the other stages. In the Pre-IRCA period, the probabilities of moving within the US were similar for undocumented and documented migrants. Finally, after IRCA, we observe again that undocumented migrants tend to move internally less than documented migrants, following the expected pattern.

⁴ The results in this section correspond to a preliminary version that does not include the macroeconomic indicators.

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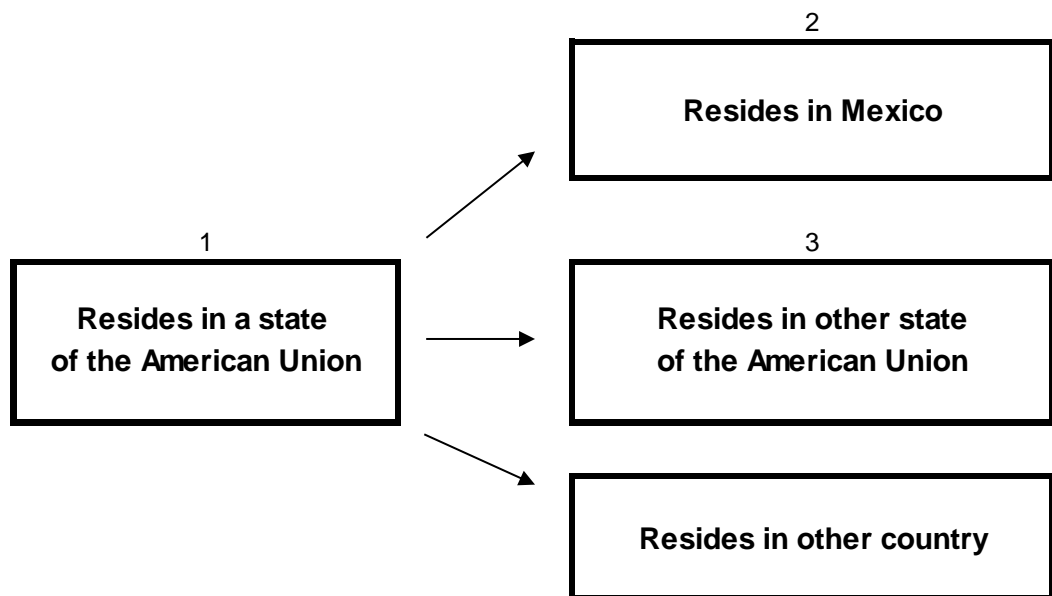
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TABLES AND GRAPHS.⁵

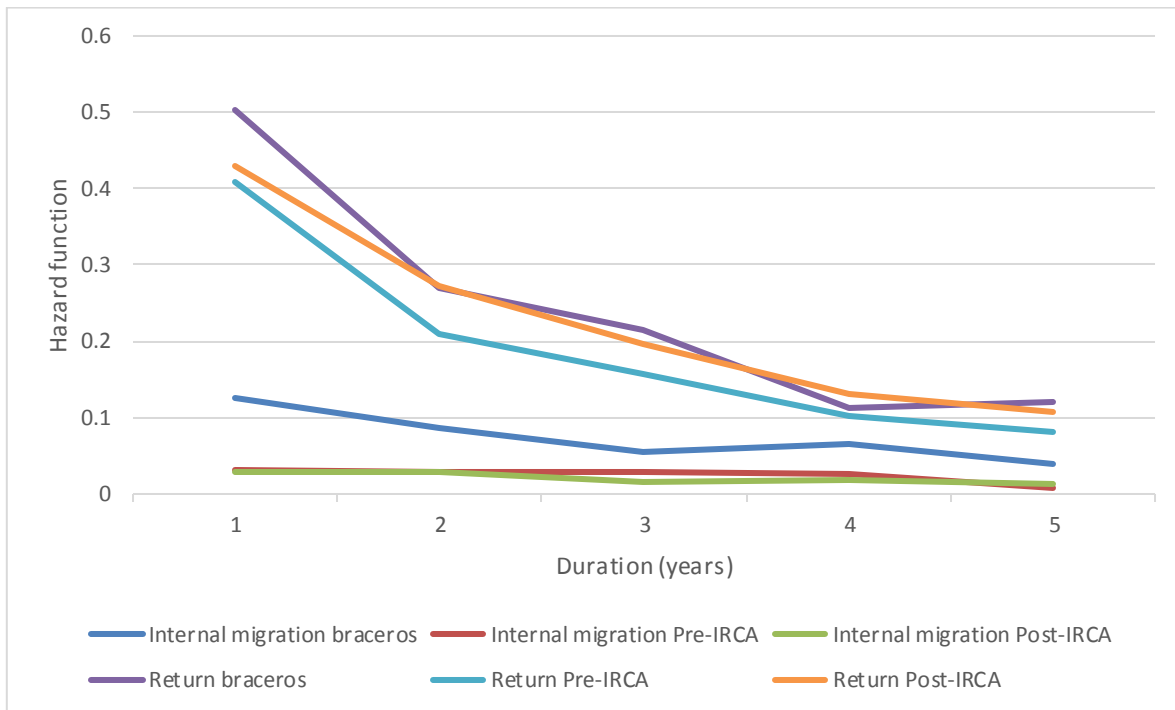
Figure I. Possible events after their first trip



Source: Prepared by the authors.

⁵ All the graphs and tables exposed in this section correspond to a preliminary version that do not include the macroeconomic indicators.

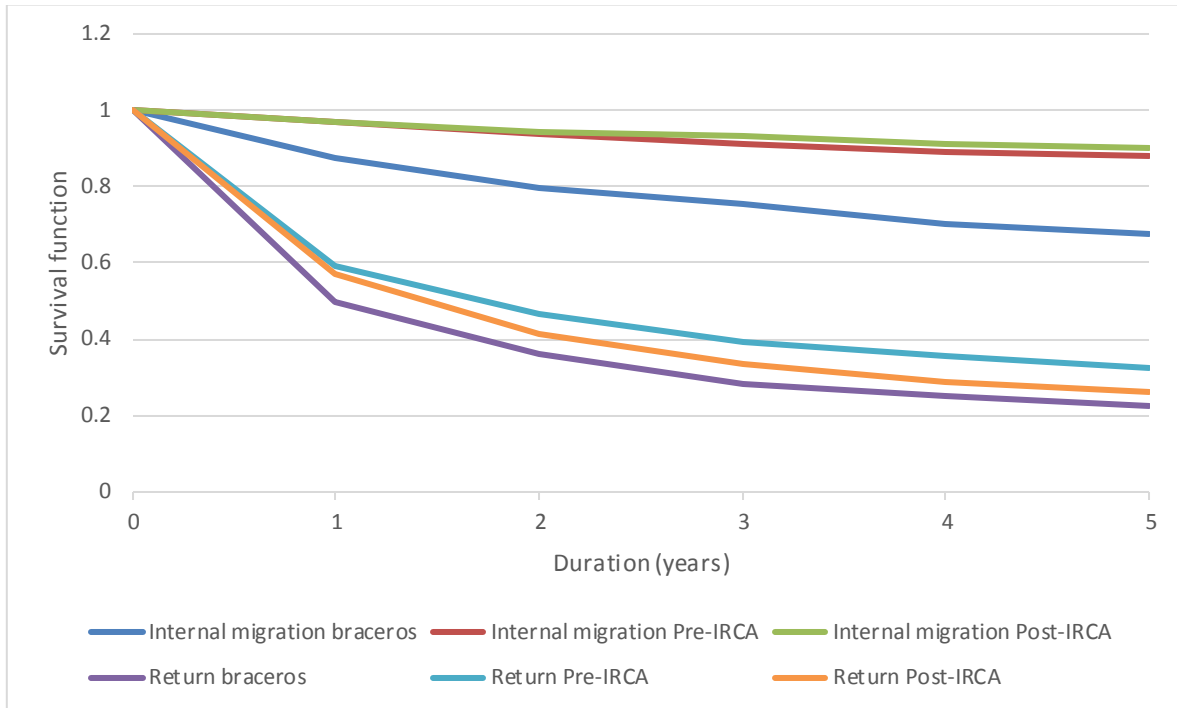
Graph I. Hazards of the internal and return mobilities by migration stages and duration



Note: The hazard functions for return or internal mobility were estimated for men 15 years and older after their first trip to the US. It only considers the first movement after arriving to the US. Braceros (1942-1964); Pre-IRCA (1965-1985); Post-IRCA (1986-2011).

Source: Authors' estimates based on data from the Mexican Migration Project.

Graph II. Survival curves for internal and return migration by migration stages and duration



Note: The survival functions for return or internal mobility were estimated for men 15 years and older after their first trip to the US. It only considers the first movement after arriving to the US. Braceros (1942-1964); Pre-IRCA (1965-1985); Post-IRCA (1986-2011).

Source: Authors' estimates based on data from the Mexican Migration Project.

Table I. Definition of variables

Dependent variable

Mobility after arrival to the US..... Three possible outcomes: No mobility, interstate mobility and return migration

Independent variables

Age..... Age in the prior year (time varying)

Duration Years since arrival in the US and entry into the first job (time varying; lagged one year)

Marital status..... Single or married in the prior year (time-varying)

Education..... Number of years of school completed in the prior year (time varying)

Migration Stages..... Braceros (1942-1964); Pre-IRCA (1965-1985); Post-IRCA (1986-2011) (time varying; lagged one year)

Occupation in the US..... Agricultural or Non Agricultural Sector (time Varying; lagged one year)

Documentation status..... Documentation status at first entry to the US. Possible outcomes: documented or undocumented (constant in time)

U.S. employment growth. Rate of change in total U.S. employment over the prior year

Source: Authors' estimates based on data from the Mexican Migration Project.

Table II. Documentation and occupation by migration stage

	Bracero	Pre-IRCA	Post-IRCA	All stages
Documentation				
Documented	1,103	416	407	1,926
	69.2%	14.4%	17.5%	28.2%
Undocumented	492	2,475	1,925	4,892
	30.8%	85.6%	82.5%	71.8%
Occupation				
Non agriculture	232	1,688	1,771	3,691
	14.5%	58.4%	75.9%	54.1%
Agriculture	1,363	1,203	561	3,127
	85.5%	41.6%	24.1%	45.9%
Total	1,595	2,891	2,332	6,818

Source: Authors' estimates based on data from the Mexican Migration Project.

Table III. Multinomial logistic regression for predicting the probability of migrating internally or back to Mexico after the first trip to the United States.

Variables	Internal migration vs. Non mobility				Return vs. Non mobility			
	Model 1		Model 2		Model 3		Model 4	
	Coeff.	s.e.	Coeff.	s.e.	Coeff.	s.e.	Coeff.	s.e.
Duration								
Duration	-0.54 ***	0.17	-0.53 ***	0.17	-1.06 ***	0.07	-1.06 ***	0.07
Duration ²	0.03	0.03	0.03	0.03	0.10 ***	0.01	0.10 ***	0.01
Age								
Age	0.07 *	0.04	0.06	0.04	0.07 ***	0.01	0.07 ***	0.01
Age ²	0.00 **	0.00	0.00 **	0.00	0.00 ***	0	0.00 ***	0.00
Marital status								
Single (omitted)								
Married	0.10	0.11	0.09	0.11	0.27 ***	0.05	0.27 ***	0.05
Education								
Education	-0.05 ***	0.01	-0.04 ***	0.01	-0.02 ***	0.01	-0.02 ***	0.01
Migration stages								
Bracero (1942-1964)	0.82 ***	0.12	1.42 ***	0.21	0.38 ***	0.06	0.68 ***	0.10
Pre-IRCA (1965-1985) (omitted)								
Post-IRCA (1986-2011)	0.15	0.12	0.33	0.28	0.22 ***	0.05	0.58 ***	0.11
Occupation in the US								
Non agriculture (omitted)								
Agriculture	0.70 ***	0.10	0.71 ***	0.10	0.41 ***	0.04	0.41 ***	0.04
Documentation Status								
Documented (omitted)								
Undocumented	-0.45 ***	0.10	0.10	0.20	0.17 ***	0.05	0.45 ***	0.08
Migration stages x Undocumented								
Undocumented x Bracero			-1.12 ***	0.26			-0.45 ***	0.12
Undocumented x Post-IRCA			-0.23 *	0.31			-0.43 ***	0.12
Constant	-2.71 ***	0.53	-3.08 ***	0.55	-0.84 ***	0.2	-1.07 ***	0.21
Chi-square	2,534		2,558		2,534		2,558	
Degree of freedom	20		24		20		24	
Number of years person	16,028		16,028		16,028		16,028	

*p<.10; **p<.05; p<.01 ***

s.e.: standard errors; Coeff.: Coefficients

Source: Authors' estimates based on data from the Mexican Migration Project.