

## **How long do Mexican migrants work in the U.S.?**

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## **Abstract**

In injury and death cases in some jurisdictions, the economic valuations of the lost earnings of foreign born migrant workers are based on the wages the individuals would have been expected to earn while working in the U.S. had they not been injured or killed. In these instances, estimating the amount of time that the foreign born workers would have been expected to be active in the U.S. labor force is critical. In this paper we use data from the Mexican Migration Project (MMP) to estimate the number of years a Mexican born foreign worker could reasonably be expected to be employed or seeking employment in the U.S. labor market. We find, consistent with other studies of Mexican migrant workers, that the typical Mexican born worker who migrates to the U.S. to work does not spend their entire working life in the U.S. Our analysis shows the typical Mexican migrant can be expected to be active in the U.S. workforce between 6.1 and 11.1 years on average. In addition, our proportional hazards model suggests that the time spent in the U.S. is dependent on a number of individual-specific factors such as a worker's gender, age, social network, and marital status. The probabilities obtained from the proportional hazards model can be used in some injury and death cases to construct more detailed and precise estimates of the time a Mexican migrant worker works in the U.S.

## Introduction

In injury and death cases in some jurisdictions, the economic valuations of the lost earnings of foreign born migrant workers are based on the wages individuals would have been expected to earn while working in the U.S. had they not been injured or killed.<sup>1</sup> In these instances, estimating the amount of time foreign born workers would have been expected to be active in the U.S. labor force is critical. Because Mexican born workers comprise a significant portion of the foreign born workers in the U.S., the U.S. work life experiences of these workers is particularly important and relevant to many current and future injury and wrongful death cases.

Calculating the expected U.S. work life of Mexican born migrant workers is complicated because not all individuals who migrant to the U.S. to work necessarily intend to spend all their working years in the U.S. Studies, such as Massey (2002) and Passel (2005), suggest that a significant portion of Mexican migrant workers come to the U.S. with the intention of capitalizing on the greater labor market opportunities in the U.S., remitting financial resources to family members in Mexico, and then ultimately returning to their country of origin. The estimation of the work life for Mexican born workers is further complicated because a significant portion of these workers are not legally authorized to work in the U.S. and therefore are at risk of being deported. Accounting for these factors effect the time spent working in the U.S. and is critical to determining a reasonable estimate of the economic damage period in injury and death cases involving Mexican migrant workers.<sup>2</sup>

In this paper we use data from the Mexican Migration Project (MMP) to estimate the number of years a Mexican born foreign worker can reasonably be expected to be employed or seeking employment in the U.S. labor market. We find, consistent with other studies of Mexican migrant workers, the typical Mexican born worker who migrates to the U.S. to work does not spend their entire working years in the U.S. Our analysis shows that the typical Mexican migrant can be expected to be active in the U.S. workforce between 6.1 and 11.1 years on average.

In addition, our Cox proportional hazards model suggests that the time spent in the U.S. is dependent on a number of individual-specific factors such as a worker's gender, age, social network, and martial status. The probabilities obtained from the proportional hazards model can be used in some injury and death cases to construct more precise estimates of the time a Mexican migrant worker would have been expected to work in the U.S.

This paper is organized as follows. In the first and second sections we discuss the economic model and provide a literature review of studies that have previously examined

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<sup>1</sup> In some jurisdictions, courts have ruled that damages should be based on the wages that the injured or deceased worker would have earned in their native country. See Bowles (2004) for a discussion of how different courts have handled economic damages in cases involving migrant workers.

<sup>2</sup> In this paper the term Mexican born migrant worker refers to all workers, regardless of occupation and legal status, who have come to the U.S. from Mexico with the intent of obtaining employment in the U.S. labor market.

the U.S. work life experiences of Mexican migrant workers. In the third section, we describe the MMP data and provide estimates of the U.S. work life expectancy of Mexican migrant workers.

### **Economic damage models in cases involving Mexican born migrant workers**

There are three components of economic damages to consider in injury and wrongful death cases involving Mexican migrant workers. These three components are the lost earnings from the time of the injury or death to the time of trial, the post-trial projected U.S. earnings, and the post-trial earnings the individual would have been expected in their country of origin. As Bowles (2004) discusses in detail, different courts have tended to handle each component of damages differently.

Regarding past earnings losses in cases involving foreign born migrant workers, many of whom have tended to be undocumented workers, some courts have ruled that awards for past earnings losses are unlawful because awards for past losses inherently conflicts with national immigration policy.<sup>3</sup> In other instances, courts have awarded past earnings losses to undocumented foreign born migrant workers.<sup>4</sup> Regarding future earnings losses, while some courts in the U.S. have stated that future earnings losses for foreign born migrant workers should be calculated using the wages that the injured or deceased could have earned in their home country, the courts have generally been silent in the area of future earnings losses for migrant workers.<sup>5</sup> Given the general ambiguity in the courts concerning the calculation of future earnings losses in injury and death cases involving foreign born migrant workers and the large number of migrant workers from Mexico in the U.S., the estimation of the time that Mexican migrant workers could be reasonably expected to work in the U.S. is especially important.

Using the standard labor force participation model, the damage model that describes the present value of the future lost U.S. wages for a migrant worker can be written as follows.

$$(1) PV(FutureLostUSWages) = \sum_{t=0}^T W_t \times p_t \times a_t \times l_t \times (1+i)^{-t}$$

where  $t$  is the time period,  $W$  are the wages earned by the migrant worker during period  $t$ ,  $p$  is the probability that the migrant worker will remain in the US during time period  $t$ ,  $a$  is the probability that the migrant worker will be active in the US labor force in time period  $t$ , and  $l$  is the probability that the migrant worker will be alive at time period  $t$ .

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<sup>3</sup> Hoffman Plastic v. NLRB, 535 US 137. See Brown (2003) and Baird (2003) for a discussion of the Hoffman decision.

<sup>4</sup> For a recent case example see Celi v. 42<sup>nd</sup> Street Development Project, Inc. 5 Misc. 3d 1023 (A) (N.Y. Sup. Ct. 2004).

<sup>5</sup> For examples of how courts have handled future earnings losses claims by foreign born migrant workers see Rodriguez v. Kline, 186 Cal. App. 3d 1145 (CA 1986), Rosa v. Partners in Progress, 868 A 2d 994 (NH, 2005), and Tyson Foods, Inc. v. Guzman, 116 S.W. 3d 233 (TX, 2003).

While each of the factors that contribute to the present value calculation of lost wages provide a potential challenge in any economic damage analysis in cases involving migrant workers, the areas in which there is the least amount of prior research are the probability of remaining in the U.S. labor market ( $p$ ) and the probability of being active in the labor market ( $a$ ). To date, in actual court cases, economic damage studies that have examined the loss of earnings for Mexican migrant workers, particularly undocumented migrant workers, have generally either by assumption ruled out future economic losses or have simply used U.S. based work life tables to provide an estimate of work life expectancy.

Estimating the probability that a Mexican migrant worker will remain in the U.S. is the focus of this paper. To estimate this probability a standard cost-benefit framework is used. The simple framework used in this paper is essentially the same as in other economic studies such as Orrenius and Zavodny (2005) that has examined the decision to migrate to the U.S.

In our model if the perceived utility (benefit) from returning home to Mexico exceeds a certain threshold (cost) then the migrant worker will return to Mexico. Unlike the decision to immigrate to the U.S., there are relatively lower transactional costs associated with returning home. For instance, Mexican citizens who crossed into the U.S. without prior work authorization will generally not need to hire a guide to assist them with re-entry into Mexico. However, the migrant worker still faces issues such as the financial cost of relocating back to Mexico, the loss of U.S. wages, and the uncertainty of employment when he or she returns to Mexico. Consequently, an undocumented worker will stay in the U.S. if he or she finds that the total cost of relocating back to Mexico exceeds the benefits from staying.

The decision to leave the U.S. labor market and return to Mexico can then be written as follows.

$$(2) \quad \begin{aligned} & \text{If } U(\sum_i \beta_i X_i) > M^* \text{ then } y = 1 \\ & \text{If } U(\sum_i \beta_i X_i) < M^* \text{ then } y = 0 \end{aligned}$$

In practice, the researcher can only see the individual level characteristics that identify the undocumented worker and the outcome variable  $y$ , i.e. if the person has returned to Mexico or not.

### **Review of research related to Mexican migrant work life estimates**

While there have been a few papers, such as Borjas, Freeman and Lang (1991), and Borjas and Bratsberg (1996), that have directly studied the U.S. work life of migrant workers, there has been a limited amount of work done on this topic. The current academic and professional literature does however provide a good conceptual framework to study a Mexican migrant worker's decision to stay in the U.S. work force.

Studies such as Borjas (1996), Borjas, Freeman, and Lang (1991), Cerrutti and Massey (2001) and Kanaiupuni (2000), Massey, Durand and Malone (2002), Rivera-Batiz (1999) suggest that demographic factors such as a person's gender, age, and marital status can affect a migrant worker's decision to return to his or her country of origin. For instance, the research suggests that once female Mexican migrant workers come to the U.S., they may be more likely than males to stay. Research such as Massey, Durand and Malone (2002) suggest that undocumented female Mexican migrant workers may be more likely to stay in the U.S. because of the relatively higher potential physical risk associated with illegal entry into the U.S. Other studies such as Kanaiupuni (2000) suggest that the occupations female undocumented workers perform may be at a slightly lower risk for deportation. Similarly, Rivera-Batiz (1999) suggest that older workers may be less likely to want to voluntarily leave the U.S. because they earn higher wages and may also become more adept at avoiding situations that could lead to deportation. In contrast, Massey, Durand and Malone (2002) suggest that migrant workers who are married and have spouses and families in their country of origin may find that dealing with family related issues in Mexico from a distance is too difficult and may be relatively more likely to leave the U.S. and return to Mexico. Rivera-Batiz (1999) suggest that this effect may be somewhat offset because married Mexican male migrants tend to earn more in the U.S. and have greater U.S. labor market opportunities than other groups of migrant workers.

In addition to the demographic make up of the migrant worker, studies such as Amuedo-Dorantes and Mundra (2004), Bleakley and Chin (2004), Borjas (1992), Massey, Durand and Malone (2002), and Orrenius and Zavodny (2005) suggest that the stock of human capital possessed by the individual will potentially affect a migrant workers decision to leave the U.S. labor market and return home. For instance, Borjas (1992) suggests that migrant workers who have a higher education level may find greater job opportunities in the U.S. and may be less likely to leave the U.S. Similarly Borjas (1992) and Orrenius and Zavodny (2005) suggest that Mexican migrant workers who are able to secure employment in relatively higher paying jobs in the U.S. may also believe it would be relatively difficult to obtain similar employment in Mexico and will therefore all else equal be less likely to return home to Mexico. Amuedo-Dorantes and Mundra (2004), and Massey, Durand and Malone (2002) also suggests that migrant workers who are able to speak and write English will have an easier time becoming acclimated to living in the U.S. and are less likely to want to return to Mexico voluntarily. English speaking ability may also lower the probability of being involuntarily returned to Mexico. Individuals who apply and receive some level of authorization, short of citizenship, should also be less likely to permanently leave the U.S. labor market.

Studies such as Chiswick (1978), Smith (2003), Borjas (1992), Amuedo-Dorantes and Mundra (2004) and Orrenius and Zavodny (2005) suggest that the stock of cultural capital possessed by undocumented Mexican workers is another area that can affect an individual's decision to return home. Cultural capital, in the current setting, includes factors such as a person's family structure, social networks, and attachment to U.S. mores, traditions, and customs. Borjas (1992), Amuedo-Dorantes and Mundra (2004) and Orrenius and Zavodny (2005) suggest that Mexican migrant workers who identify more closely with the U.S. and have a well established network of extended family in the

U.S. may be less likely, all other factors equal, to want to return to Mexico. Similarly, Rivera-Batiz (1999) suggests that the existence of a strong non-family social network as exhibited by participation in sports or social organizations can also increase the likelihood that a migrant worker would want to remain in the U.S.

Research such as Bean, Espenshade, White and Dymowski (1990), Donato, Durand and Massey and Singer (1995), Hanson (1999), Hanson (2005), and Garcia and Wassem (2004) suggest that geographical, institutional, and economy wide factors also affect a Mexican migrant worker's decision to stay in the U.S. labor market. For instance, Massey, Durand and Malone (2002) suggests that Mexican migrants that immigrate to locations that have a relatively higher Mexican and Mexican-American population and to areas with relatively more lenient and accommodating attitudes towards migrant work issues may also be relatively less likely to leave the U.S. In addition, as Orrenius and Zavodny (2005) show, changes in economic conditions in either the U.S or Mexico could change the relative labor market opportunities available to undocumented workers and may either encourage or discourage Mexican migrant workers to leave the U.S. work force.

In addition, studies such as Donato, Durand, and Massey (1992), Passel (2005) and Massey and Singer (1995) show that U.S. stances on immigration can also have a substantial impact on the flows of Mexican migrant workers from Mexico as well as the decision to remain in the U.S. or to return home. All else equal, a more restrictive immigration policy reduces the supply of migrant labor and hence results in a positive wage effect. The positive wage effect will further increase the typical Mexican migrant workers desire to stay in the U.S. Similarly, a more stringent immigration policy focused on curtailing entry in the U.S. may result in an increase in a Mexican migrant worker's desire to stay in the U.S. since the cost associated with re-entry into the U.S. will be relatively higher.

In recent decades, there have been many major changes in immigration policy concerning Mexican migrant workers. Important legislation and actions concerning Mexican migrant workers at the federal level are The Immigration Act of 1990 and The Illegal Immigration Reform and Immigrant Responsibility Act of 1996 and most recently, the changes in immigration policy following the 9/11 terrorist attacks. While earlier immigration legislation in the 1990s generally provided amnesty provisions and a path to citizenship for some Mexican migrant workers, the most recent post-9/11 changes in immigration policy have generally focused on border security and provide fewer amnesty provisions for Mexican migrant workers. For a discussion of the pre-9/11 immigration legislation concerning Mexican migrant workers see Massey, Durand, and Malone (2002) and Garcia and Wassem (2004) for a discussion of post-9/11 immigration legislative initiatives.

### **Estimating the number of years that Mexican migrant workers work in the U.S.**

In this study, we use data from the Mexican Migration Project (MMP) database to examine the length of time in which Mexican migrants work in the U.S. The data used in the study is person-level information about the head of household's last visit to the U.S.

The information includes measures of economic and social activity such as the type of employment held, wages earned, and the number of relatives in the U.S. The data used in this study includes persons who reside in the U.S. as well as individuals who live in Mexico but have, at one time or another, migrated to the U.S. The dataset in our study is restricted to individuals who report being active in the U.S. work force. There are a total of 6,318 observations in the dataset used in this paper. About 35% of the persons in the data last migrated to the U.S. before 1980. The majority of the individuals last migrated to the U.S. between 1970 and 1999.

In some injury and wrongful death cases, tabulations of the MMP data can be used to provide a reasonable estimate of the time that Mexican migrant workers could be expected to work in the U.S. Based on the MMP data used in this paper, the average Mexican migrant worker spends a total of about 6.1 years in the U.S. This data tabulation is based on the time spent in the U.S. across all immigration events and excludes seasonal returns and vacation trips to Mexico.<sup>6</sup>

In other cases, it may be more appropriate to condition the calculation of the averages obtained from the MMP on the relevant background information of the injured or deceased. For instance, holding all other factors constant, younger workers could be expected to have a longer remaining U.S. work life than older workers. One way to address this issue is to estimate an upper-end bound on the average time spent in the U.S. by Mexican migrant workers. For example, the average time spent in the U.S. for the oldest cohort of workers in the MMP data can serve as one measure of the upper end bound that a Mexican migrant worker can be expected to be in the U.S. The oldest groups of workers in the data would have had the longest period of time to work in the U.S. and the ability to make the largest number of trips to the U.S. In the MMP dataset, the oldest cohort of working age are between the ages of 50 and 59 and report spending a total of 11.1 years in the U.S. labor market on average.<sup>7</sup> For some injury and death cases, in which limited background information is available for a subject younger than average age, using the upper end estimate of 11.1 years for the remaining U.S. work life duration of the injured of Mexican migrant may be more appropriate than the unconditional average.

In cases in which there is more detailed background information concerning the educational and demographic background of the injured or deceased Mexican migrant worker, a more precise estimate of the remaining U.S. work life can be derived from the age-specific probability estimates obtained from econometric duration models. The Cox proportional hazards model is particularly useful in injury and wrongful death cases because it takes into account the effect of educational and demographic factors on the probability that the Mexican migrant will remain in the U.S. Additionally, when using the MMP data, the design of the Cox model returns a probability based on the amount of time that the migrant worker has previously spent in the U.S.

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<sup>6</sup> The typical Mexican migrant worker will have multiple immigration events over their lifetime. The average migrant worker will have about two immigration events to the U.S. from Mexico over their lifetime. On average, Mexican migrant workers spend about three years in the U.S. per immigration event.

<sup>7</sup> There are insufficient number of individuals in the MMP data who were older than age 59 and who reported being active in the work force to produce a reliable average for persons older than 59 years of age.

Specifically, the MMP data can be used to estimate the Cox proportional hazard model of the probability that a Mexican migrant will leave the U.S. labor market and return to Mexico. In injury and wrongful death cases, we are interested in the instantaneous hazard rate  $h(t)$ . The hazard rate in the current setting is the potential (or probability) at time  $t$  that the migrant Mexican worker would have returned to Mexico given that they have already spent  $t$  years in the U.S.<sup>8</sup> That is,

$$(3) \quad h(t) = P(t \leq T \leq t + \Delta t | T \geq t)$$

The Cox proportional hazards model, which incorporates a time dependent baseline hazard rate  $h_o(t)$  and time independent the explanatory variables  $X$ , and is written as follows.

$$(4) \quad h(t, X) = h_o(t) e^{\sum \beta_i X_i}$$

where  $h_o(t)$  is the baseline hazard,  $X$  are the explanatory variables related to the Mexican migrant worker's likelihood of leaving the U.S. labor force and  $\beta$  are the model coefficients.

To estimate our model of the migrant's decision to leave the U.S. labor force and return to Mexico, we use explanatory variables that measure the Mexican migrant worker's stock of human capital and cultural capital as well as variables to account for the overall economic conditions. A description of the variables, statistical summary, and the coefficients associated with the variables included in the Cox model is shown in Table 1.<sup>9</sup> Generally, the Cox proportional hazards model suggest that the factors discussed above are important determinant in estimating long a Mexican migrant worker would have been expected to remain in the U.S. had they not become injured or deceased.

More specifically, the negative sign on the coefficients of the Cox proportional hazards model suggest that older, more educated, and better paid Mexican migrant workers are less likely to return to Mexico. The Mexican migrant worker's ability to speak and read English and their stock of cultural capital are also important determinant in the Mexican migrant workers decision to return to Mexico. The econometric models shows that an individual who is not able to speak or read English is about 1.5 times more likely to leave the U.S. labor market than a Mexican migrant who is able to speak and read English.<sup>10</sup>

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<sup>8</sup> It is important to note that the proportional hazards model approach described below only considers the U.S. immigration stint that the undocumented worker was currently on at the time of the incident. If it is required to estimate the economic value of the U.S. wages that the Mexican migrant worker could have earned from U.S. immigration events that could occur subsequent to the incident at issue, the models discussed in the paper would need to be augmented to account for these possibilities

<sup>9</sup> In testing the model, we consider statistical tests of the model's residuals (Schoenfeld and scaled Schoenfeld residuals tests) as well as visual investigations of the estimated Kaplan-Meier curves. We tested the robustness of our model by estimating a number of different model specifications and determined that our findings are consistent across the different specifications.

<sup>10</sup> The Cox model coefficient estimates shown in Table 1 are converted to hazard rates by taking the exponential of the estimates.

Similarly, the Cox model estimates suggest that individuals either with a bank account or who have children in U.S. schools are about half as likely to stay in the U.S. as those who do not have a bank account or children in school. These results collectively suggest Mexican migrants who become more attached and accustomed to the social and cultural mechanisms in the U.S. may also have better job and labor market opportunities.

There are two different ways the proportional hazard model estimated from the MMP data can be used to project how long the injured or deceased Mexican migrant worker could have been expected to work in the U.S. value economic damages associated with an undocumented Mexican workers wage or earnings loss. The baseline hazard ( $h_o(t)$ ) and the model coefficients ( $\beta$ ) of the proportional hazard model in equation (4) can be used to produce annual probabilities of labor force participation.<sup>11</sup> Alternatively, the total expected work life for a given individual by summing the yearly probabilities obtained from equation (3).

### **Case study example**

To illustrate the use of the Cox proportional hazards model to estimate the U.S. work life for a Mexican migrant worker, consider the following case study example. In the hypothetical lawsuit, two Mexican migrant workers were killed at a construction site. It is alleged that the contractors failed to provide the workers with appropriate safety gear. Both workers were 32 year old males and had approximately seven years of education. Both were married and lived with their families in Texas. According to the court documents and deposition testimony, Worker A has been in the U.S. five years, spoke and read English, and was active in social organizations and sports in the U.S. Worker B also arrived to the U.S. five years ago but did not speak or read English and was not active in social or sports organizations.

As discussed above, equation (4) can be used to calculate the annual probabilities that the Mexican migrant worker will remain active in the U.S. workforce. Figure 1 shows the probabilities of remaining in the U.S. workforce by the number of years in the U.S. for the two workers in the case study. As the figure shows, a person similar to Worker B who does not speak English and has a limited U.S. social network will have a lower probability of remaining in the U.S. For instance, a migrant worker (Worker A) who has resided continuously in the U.S. for five years, is active in social organizations, and speaks English, has a 0.70 probability of remaining in the U.S. labor force throughout year five and into year six. On the other hand, a Mexican migrant worker (Worker B) who has resided in the U.S. for five years but who does not speak or read English and is not socially active has about a 0.58 probability of remaining in the U.S throughout year five and into year six.

The year by year probabilities can be used in the calculation of the present value of the future wage losses using equation (2) or the total expected work life for a given

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<sup>11</sup> In the Cox hazard model, the baseline hazard function is not specified but is estimated using kernel smoothing. For a discussion of kernel smoothing techniques see Cleves, Mario, Gould, William, and Gutierrez, Roberto (2004).

individual can be obtained by summing the yearly probabilities obtained from equation (4). In our example, summing the yearly probabilities obtained from the Cox proportional hazard model for year five going forward for the English speaking Worker A who arrived in the U.S. five years ago, results in a total expected U.S. work life expectancy of 16.36 years. Worker B, who arrived in the U.S. five years ago, does not speak English, and has a limited established social network, has a total expected U.S. work life expectancy of 13.62 years. For comparison, Table 2 presents the U.S. work life expectancies for selected Mexican migrant workers by tenure in the U.S.

## **Conclusion**

In this paper we use data from the Mexican Migration Project (MMP) to study the U.S. immigration experiences and work life expectancy of undocumented Mexican workers. Our key results are as follows. We find that consistent with other studies of Mexican migrant workers, the typical Mexican born worker who migrates to the U.S. to work does not spend their entire working life in the U.S. Our analysis shows the typical Mexican migrant can be expected to be active in the U.S. workforce between 6.1 and 11.1 years on average. In addition, our Cox proportional hazards model suggests that the time spent in the U.S. is dependent on a number of individual-specific factors such as the worker's gender, age, social network, and marital status. The probabilities obtained from the proportional hazards model can be used in some injury and death cases to construct more precise estimates of the time a Mexican migrant worker can be expected to work in the U.S.

**Table 1: Cox model of the Mexican migrant worker's decision to leave the U.S. workforce**

Variable	Description	Mean Value	Coefficient	z-Statistic
female	Equals 1 if female	0.05	-0.154320 (0.069609)	-2.22
age	Age in years as of the date of last migration to the U.S.	35.73	-0.013380 (0.006433)	-2.08
age2	Age squared	71.46	0.000139 (7.76E-05)	1.79
edysr	Number of years of education	5.15	-0.010830 (0.004686)	-2.31
married	Equals 1 if married	0.18	0.174784 (0.042412)	4.12
familyinUS	Equals 1 if has extended family in U.S.	0.55	0.146534 (0.030695)	4.77
social	Equals 1 if involved in sports or social organization	0.12	-0.176110 (0.053717)	-3.28
noenglish	Equals 1 if individual does not speak or read English	0.45	0.481799 (0.033069)	14.57
highwage	Equals 1 if earns more than minimum wage	0.32	-0.232510 (0.039834)	-5.84
bank	Equals 1 if person has a U.S. bank account	0.13	-0.681570 (0.068354)	-9.97
legalmigration	Equals 1 if the person is legal, authorized, or citizen	0.24	-0.287100 (0.045946)	-6.25
schoolkid	Equals 1 if the person has a child in U.S. school	0.14	-0.630200 (0.058841)	-10.71
texas	Equals 1 if the person currently resides in Texas or last migration was to Texas	0.16	0.028740 (0.046197)	0.62
ca	Equals 1 if the person currently resides in California or last migration was to California	0.54	-0.215130 (0.037723)	-5.70
il	Equals 1 if the person currently resides in Illinois or last migration was to Illinois	0.08	-0.417810 (0.064336)	-6.49
preIRCA	Equals 1 if the year of migration was before 1986 Immigration Reform Control Act (IRCA)	0.51	-1.028000 (0.050140)	-20.50
yr70s	Equals 1 if the year is between 1970 and 1979	0.12	-0.176460 (0.050788)	-3.47
yr80s	Equals 1 if the year is between 1980 and 1989	0.26	-0.535220 (0.049913)	-10.72
yr90s	Equals 1 if the year is between 1990 and 1999	0.38	-1.454080 (0.068363)	-21.27
yr00s	Equals 1 if the year is greater than 2000	0.09	-2.311480 (0.099593)	-23.21

Note: The coefficient's standard errors are shown in the parentheses.

**Table 2: U.S. work life expectancy by current tenure in U.S.**

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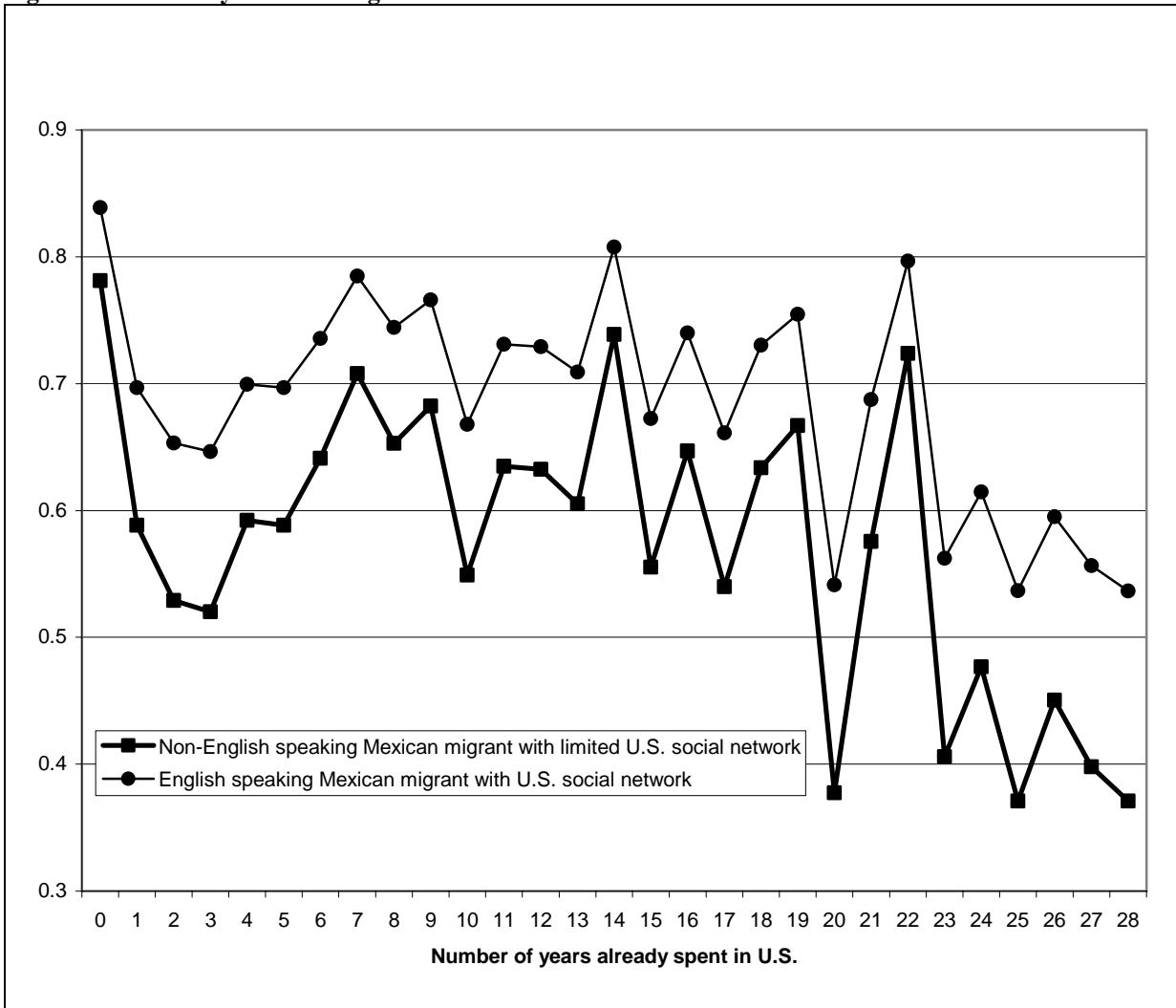
Current Tenure in U.S. in Years	Total additional years expected to remain in U.S. workforce	
	Non-English Speaker with limited social network	English Speaker with U.S. Social network
<1	16.64	19.89
5	13.62	16.36
10	10.35	12.63
15	7.19	8.99
20	4.15	5.43

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Notes

1. The table is constructed using the Cox proportional hazard model discussed in this paper.
2. It is based on a Mexican migrant worker who is male, 32 years of age, has seven years (7) of education, is married, has family in the U.S., and lives in Texas.
3. All indicator variables, other than English speaking ability and the extent of U.S. social network, in the Cox proportional hazards model are set to zero in the construction of this table.

**Figure 1: Probability Mexican migrant worker will remain in the U.S. workforce**



**Notes:**

1. The graphs are constructed using the Cox proportional hazard model discussed in this paper.
2. It is based on a Mexican migrant worker who is male, 32 years of age, has seven years (7) of education, is married, has family in the U.S., and lives in Texas.
3. All indicator variables, other than English speaking ability and the extent of U.S. social network, in the Cox proportional hazards model are set to zero in the construction of this graph.
4. Data observations that showed the person spending more than 28 years in the U.S., which was approximately the 99th percentile, were not included because the quality of the data for these observations was suspect and they also had a disproportionate effect on the parameter estimates.

## References

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