Immigrant Wages and Recessions: Evidence from Undocumented Mexicans

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Abstract

This paper studies the impact of recessions on the real wages of undocumented workers in the US. Using data from the Mexican Migration Project on immigrant wages from 1965-2011, we find that wages fall as the unemployment rate increases. We use a simple model to show that selection effects can bias these results. Lowered wage opportunities in the US will affect migration decisions and thus can change the composition of the immigrant population. Therefore, average wage changes during a recession can reflect both changes in aggregate demand as well as changes in the unobserved skill level of immigrants. To control for selection, we use data on individual wage growth over multiple trips to the US. In this setting, we find that hourly wages decrease by $1.13 to $1.15 during a recession. An alternative specification shows that wages decrease with the unemployment rate. A 1 percentage point increase in the unemployment rate lowers a person's hourly wage outcome by approximately 35 cents. These results can be contrasted with empirical work which finds that native wages are not flexible and do not adjust much during downturns. The typical explanation for this finding is that native workers are employed under long-term contracts, where firms adjust to recessions by hiring fewer workers but not by adjusting the wage. Our results support this theory by finding much larger effects of an economic downturn in a segment of the population that is likely to work under short-term contracts.

JEL codes: J61, J31

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1. Introduction

In this paper we study how the labor market conditions of illegal immigrants from Mexico change over the business cycle. In particular, we analyze the fluctuations in illegal immigrant wages during economic downturns. Empirical work shows that illegal immigration will decrease and return migration will increase as US wages drop.[1] In a 2009 survey conducted in Mexico, many respondents reported lower immigration rates due to the weakened US labor market. When asked the reason for this, 47% cited the bad economy and lack of jobs, 36% reported that it was due to border enforcement, and 13% said both were a factor. Forty percent of the sample reported that more people were returning from the U.S. than in previous years. Among this group, 40% claimed this was due to the bad economy and lack of jobs in the U.S. (Camarota (2009)). This survey evidence shows a perception that the economic downturn lowered the wage opportunities for Mexican immigrants. However, there has been no empirical study of these effects.

Our focus is on understanding how economic downturns affect the labor market outcomes of illegal immigrants. This could be reflected through a reduction in the number of available jobs, lower wages, or both. The mechanisms behind these outcomes are unclear, however. Clearly, a reduction in aggregate demand during a downturn should lower the equilibrium wage and hours worked of immigrant workers. However, there are other factors in play that could mitigate this effect. First of all, in a recession, employers may be more likely to hire illegal immigrants. Firms in a competitive industry who demand unskilled labor can hire illegal immigrants whom they pay less than the minimum wage.[2] However, the cost associated with the hiring of illegal immigrants puts a downward pressure on the demand for illegal labor. For example, illegal immigrants face the risk of deportation, so employers risk losing their workers (Morales (1983)). In addition, the US government imposes penalties on firms when caught hiring illegal workers.[3] During a recession, firms in competitive industries, facing lower demand for output, may be more willing to face these costs. This could drive up demand for illegal immigrant workers.[4] On the other hand, if there is a reduction in the equilibrium wage for illegal immigrants, this will affect the immigration decisions of Mexican workers. Migrant stocks could decrease, lowering the supply of immigrant workers, which would increase the equilibrium

[1] See Lessem (2012), Nakajima (2012), Thom (2010).

[2] Huddle (1993) finds that illegal immigrants often work harder and accept wages lower then legal workers.

[3] The Immigration Reform and Control Act (IRCA) of 1986 prohibits firms to knowingly hire undocumented workers (Donato, Durand, and Massey (1992)).

[4] This view is consistent with trends in automobile industry in Los Angeles during the 1970's and 1980's. The firms hired more undocumented immigrants as a means of responding to the international competition in manufacturing (Morales (1983)).

wage.

We use data from the Mexican Migration Project (MMP) to study the changes in illegal immigrant wages during a recession. We first document that average real wages decrease as the unemployment rate increases. In addition, decreased wages will affect each individual's migration decision, leading to a change in the composition of the immigrant population. Therefore looking at the overall wage levels could lead to biased results. The next part of our analysis controls for selection effects by using data on the wage growth of immigrants over repeated trips to the US. We show that each individual earns lower wages when working in the US during a recession. An alternative specification shows a significantly negative relationship between real wages and the unemployment rate. As mentioned above, we believe that general equilibrium effects could also affect these results. Future work will analyze the implications of this.

Our result that real wages fall during a recession can be contrasted with stylized facts on the real wage and recessions in permanent labor contracts. Research on labor markets indicate that real wages show some degree of rigidity to unemployment fluctuations. The standard explanation for this finding is that since most workers are on long-term contracts, employers can only respond to demand shocks by changing the number of workers. This argument implies that the wages of illegal immigrant workers, who are much more likely to be hired on short-term contracts, should be more flexible. By studying changes in illegal immigrant wages, we can find empirical support for this theory. If wages under permanent contracts do not change because of the nature of labor market contracts, wages under temporary contracts should be much more flexible. To the best of our knowledge, this paper is the first to consider this using illegal immigrant wage data.

The paper is organized as follows. Section 2 reviews the literature. Section 3 explains the data we use, and the empirical analysis is shown in section 4. Section 5 concludes.

2. Literature review

This paper can be contrasted with the empirical findings that wages do not sufficiently decrease in a downturn. Hall (1980) finds that average wages fluctuate less than labor's marginal revenue product or the total volume of employment over the business cycle.[5] Implicit contract theory (Baily (1974), Gordon (1974), Azariadis (1975)) explains

[5]The parallel discussion is on nominal wage rigidity (See, for example, Fischer (1977)). Since we focus on the response of real wages to economic fluctuations, we discuss only real wage stickiness. Alternatively, we could have considered how immigrant's wages respond to monetary policy. However, since the MMP offers only one wage observation per trip, it cannot capture any wage responses to monetary shocks that took place multiple times during their stay.

this through a model where risk-neutral firms insure risk-averse workers. Search theoretic models can also be used to mimic the sluggish response of real wages in contrast to high fluctuations in unemployment (Pissarides (1985)). The crucial similarity across these mechanisms is that employees are in long-term contracts.[6] If this explains wage rigidity, then immigrant wages should be more flexible given that they tend to be in short-term contracts.

Some empirical studies confirm this view. Bewley (1999) interviewed 300 firms–including temporary contract firms–in the Northeast US about the 1990's recession. He finds that secondary sector jobs (waiters, taxi drivers, security guards, etc) show higher turnover than primary sector jobs, which tend to have longer contracts. He reports that the wages of new hires are more flexible downward in secondary jobs than in primary jobs. Since these temporary jobs have low costs of hiring and training, firms in the secondary sector chose to layoff workers and hire new worker with lower wages. He also reports that low wages are easily accepted by the newly employed because high mobility makes it hard to learn colleague's wages. In addition, Bertola, Dabusinskas, Hoeberichts, Izquierdo, Kwapil, Montrones, and Radowski (2012) uses European data to show that pay cuts are more likely to occur in highly competitive industries. These findings support the idea that the firms hiring temporary workers quickly adjust the wage to economic conditions.

Thus, response of wages to economic conditions depends on whether the labor contract is permanent or temporary. Empirically, illegal immigrant workers are hired as temporary workers. Research shows that firms hire temporary workers because they will not have to pay Social Security benefits or because there is a low cost of firing workers (Saint-Paul (1997)). Firms also can hire temporary labor for seasonal jobs. When firms hire temporary workers, they hire the cheapest worker with no intentions of investing in the worker's human capital.[7]

3. Data

We use data from the Mexican Migration Project (MMP) to estimate the relationship between immigrant wages and US economic conditions. The MMP is a repeated cross-sectional survey conducted every year from 1987 to 2011. The data is collected from ran-

[6] Search frictions between firms and unemployed workers can lead them to form a long-run relationship (Krause and Lubik (2007)).

[7] Research shows that in Texas, many illegals continuously work for the same employer although being hired as a temporary worker. They are are paid as casual labor (Huddle (1993)).

domly chosen household within communities where migration to the US is prevalent.[8] Since many migrants from the same community cluster in the same location in the US, the interviewer also surveys individuals in the region of the US where many migrants from that community reside. Because of this data collection method, households who have entirely moved to the US or households from communities with low migration rates are not included in the sample. Thus, our results only capture the characteristics of temporary migrants from communities with high migration rates.

The MMP is a retrospective dataset that asks questions about people's past migration histories. We collect the following variables that reflect the migration experience of household heads in the MMP:

1 Number of trips to the US,

2 The calendar year of arrival of the first and last trip,

3 Wage and frequency of payment for the first trip,

4 Hourly wage for the last trip,

5 Duration of US visit at first and last trip, and

6 Occupation for the first and last trip.

We also use demographic information such as age and years of education. Wages are converted to 2011 US dollars using the CPI index from the Bureau of Labor Statistics. Since workers only report one wage for each of the first and last trips, we use the average inflation rate over the duration of each trip.

Two main data restrictions are made. First, we restrict the sample to migrants who claimed their first and last trip to be on undocumented status. Since our goal is to contrast the reaction of wages under flexible wage settings and long-term contracts, we obtain better estimates by eliminating legal immigrants–including temporary visa holders–who are more likely to be working under similar conditions as natives. Second, we focus on immigrants who first visited the US after the Bracero program (1942-1964). During this period, the US government aggressively encouraged temporary laborers to fill the shortage in the agricultural labor force after World War II. Legal workers under the program were protected through, for example, the minimum wage. Although there is an evidence that many farm owners favored illegal workers without temporary visas whom they paid less than the minimum wage (Scruggs (1961)), it seems reasonable to assume that the wage setting during this era is different from other periods. Hence, we omit these observations from our sample. Table 1 summarizes the data restriction process.

[8] Hence, the communities are not selected randomly.

3.1 Descriptive statistics

Table 2 presents summary statistics on the sample that is used in the paper. The sample is dominated by relatively young individuals with low educational attainment. The average person has made approximately 2 trips to the US, and around 60% of the sample moved to the US just once. On average, each trip to the US lasts for around 2 and a half years. For the first trip to the US, wages can be reported at the hourly, weekly, or monthly level. We convert all wages to hourly wages, assuming each worker works 8 hours per day, 5 days a week, $\frac{30.5}{7}$ weeks per month, and every month of the year. For the last trip to the US, wages are reported at the hourly level. We see that the average wages are around $10 an hour. Immigrants work in mainly agriculture, manufacturing, and services. Figures 1 and 2 show the distribution of the years when people move to the US (for first and last trips, respectively). The majority of our observations are in the 1980's and 1990's.

3.2 Measuring recessions

We measure the state of the economy in two ways. First, we create a dummy variable indicating whether or not the economy is in a recession, using National Bureau of Economic Research classifications.[9] Table 3 presents recession dates and the unemployment rate during each of those periods.

We also use the unemployment rate as a continuous measure of the state of the economy.[10] Figure 3 shows variations in the unemployment rate. We can see fluctuations in the unemployment rate corresponding with the recessions in Table 3.

4. Reduced form evidence

4.1 Wage levels

In this section we look at the determinants of illegal immigrant wages. We control for the presence of a recession in 2 ways: by using a dummy variable for recession years, and the national unemployment rate.

We use OLS to estimate the effect of the state of the economy on wage levels, controlling for age, occupation, education, and a time trend. Table 4 shows the results. In columns (1) and (2), we control for the presence of a recession using dummy variables. In columns (3) and (4), we use the unemployment rate to allow for continuous variation in the state of the economy. We run these regressions for hourly wages and for monthly

[9] The data is at http://www.nber.org/cycles.html.

[10] This data is from the Bureau of Labor Statistics.

wages. For monthly wages, the number of observations is smaller because we only have this data for each person's last trip to the US. Monthly wages account for wage effects as well as unemployment effects, in that during a recession people may also find fewer hours of work. We do not see a statistically significant effect when using the recession dummy, but when we use the unemployment rate as a continuous measure of the state of the economy, we see that a higher unemployment rate lowers wages. A 1 percentage point increase in the unemployment rate lowers hourly wages by $0.36. Evaluated at the mean wage levels, this is a 3.9% decrease in the wage. We see no statistically significant effect of education. Age seems to have the standard concave effect on hourly wages, but no effect when we look at monthly wages. We also see that people working in agriculture earn less.

4.2 Wage growth

In this section we first detail a simple model to show how selection effects can bias the previous results. We then use data on repeat migrants to estimate the changes in wages during a recession while controlling for selection.

4.2.1 Selection Effects

The previous analysis shows that average immigrant wages are lower in a recession. However, this does not control for selection, in that if wages decrease, this will affect migration decisions, and the composition of the immigrant population will change. We assume that some unobservable factor (ie skill) affects wage outcomes in the US, and therefore will affect migration decisions. In this setting, looking at just average wages of those who chose to move will give biased results.

To demonstrate the importance of selection, consider a simple static migration model. Assume person i's wages in Mexico and the US are given by

$$\begin{aligned} w_{it}^{M} &= \gamma_i^{M} + \delta_t^{M} + X_{it}{}'\beta^{M} + \epsilon_{it}^{M} = f_t(X_{it}, \gamma_i^{M}) + \epsilon_{it}^{M} \\ w_{it}^{US} &= \gamma_i^{US} + \delta_t^{US} + X_{it}{}'\beta^{US} + \epsilon_{it}^{US} = g_t(X_{it}, \gamma_i^{US}) + \epsilon_{it}^{US} \end{aligned}$$

Each person has a fixed effect in wages that is specific to each labor market (γ_i^j for location j). We assume that this factor is known to each person but cannot be observed by the econometrician. There are also time changes in each country (δ_t^j), which is what we will use to analyze the effects of a recession. Wages depend on each individual's demographic characteristics X_{it}, where we allow the returns to each factor to vary across countries. There is a random shock to wages in each period to each location ϵ_{it}^j. We assume the the

values of the shocks are seen by each person and then they decide where to live. Assume everyone is initially living in Mexico. There is a cost of moving to the US which we denote as C. Assume utility is wages net of moving costs. A person moves if

$$\epsilon_{it}^{US} - \epsilon_{it}^{M} > f_t(X_{it}, \gamma_i^M) - C - g_t(X_{it}, \gamma_i^{US})$$

We can use this model to show how selection will bias our estimates. Conceptually, as the wages in the US decrease, everyone will be less likely to move. However, the composition of the immigrants will be shifted more towards individuals with higher values of γ_i^{US}. This will drive up average wages in the US, mitigating the effects of the downturn. Hence changes in overall wage levels will not just be capturing changes due to the recession.

We simulate the model to demonstrate this graphically. We hold the demographic characteristics and the returns to each factor constant. We assume the values of γ in each country are drawn from the standard normal distribution, as are the unobserved shocks to wages. We vary the level of the time factor of wages in the US. Figure 4 shows that the values of γ^{US} for migrants increase as wages in the US decrease. Therefore, the results in the previous section could be capturing both the decrease in US wages as well as the increase in the unobserved component of wages.

This analysis is quite simple, and does not capture other relevant aspects of the decision. For example, it is likely that values of γ^{US} and γ^{M} are correlated. These factors represent each person's skill in the labor market, and it is reasonable to assume that people who are productive in the US labor market will be productive in the Mexican labor market. However, we just use this simple framework to show that selection effects can be important, and that to get unbiased estimates we must control for this.

4.2.2 Empirical Analysis

The previous section shows that to get unbiased results we must control for selection. In this next part, we use data from immigrants who made multiple trips to analyze the relationship between wage growth and economic conditions. We analyze the determinants of wage growth between these 2 observations. Because we are looking at the same individual over time, we do not have to worry about selection concerns. Throughout this section, subscripts F and L indicate the value during the first trip and last trip.

Consider the following regression model.

$$\Delta w_i = \alpha_0 + \alpha_1 \Delta T_i + \alpha_2 X_i + \varepsilon_i. \tag{1}$$

where $\Delta w_i = w_{Fi} - w_{Li}$ is the difference in hourly wages between the first and last trip and ε_i is the error term.

As in the analysis for the wage levels, we control for the state of the economy in two ways: recession dummy D and national unemployment rate u. Hence,

$$\Delta T_i = \begin{cases} D_{Fi} - D_{Li} & \text{regression 1} \\ u_{Fi} - u_{Li} & \text{regression 2.} \end{cases} \tag{2}$$

In this context, $\Delta T < 0$ indicates that a worker experienced economic downturn in the second trip.

Regarding the first regression method, there are two sub-groups that experienced no change in economic conditions: those who experienced a recession in both visits (3%), and those who did not experience a recession in either visit (64%). Since the sample size for the former group is very small, we use the latter group as the control group. About 16% of the sample experienced a recession only in the first trip, and 18% only in the last trip.

For other explanatory variables (X_i), we use 1) the duration between the first and the last trip and 2) a dummy variables that that equals 1 when the first visit is made after 1986. The year 1986 is chosen so as to capture any structural changes that might have taken place before and after Immigration Reform and Control Act (IRCA).

Since the MMP reports only one wage for each trip, we restrict the sample to those who stayed less than 18 months in order to make sure the reported wage is only capturing the wage during the recession. This means that the sample average of the unemployment rate over the visit duration is calculated using at most 2 years. However, since the duration of stay correlates[11] with their wage, eliminating workers who stayed longer potentially leads to some biased result. Also, this operation results in the loss of 42% of the data. Despite these issues, it is necessary to make these assumptions for this analysis. In addition, in order to eliminate occupational effects on the wage determination, we restrict the sample to those who reported the same occupation on both trips.[12]

Table 5 shows the results. There is a negative coefficient on ΔT in both regressions, indicating that people earn lower wages in a recession. A worker experience an hourly wage loss of \$1.13-1.15 due to being in the US during a recession. An interpretation of the coefficient on Δu being -0.35 is as follows. Consider two workers with the same characteristics except for the unemployment rate difference between two trips. Suppose worker A did not experience any economic change (i.e. $\Delta u = 0$) and a worker B experienced a unit increase in the unemployment rate between first and last wage (i.e. $\Delta u = 1$). Then the worker B's wage on the last trip will be 35 cents lower than worker A.

[11] The direction is ambiguous. A higher wage gives an incentive to stay longer and earn more, but also allows one to accumulate the wealth faster.

[12] Adding dummies depending on occupational switch showed no significant result.

5. Conclusion and future work

In this paper, we considered how Mexican immigrant's wages respond to economic downturns. Consistent with theory that short-term wages are more flexible downward during recessions, a simple OLS regression showed that immigrant's wages decrease with the unemployment rate. We show that selection effects can bias these results. We then use data on the wage growth of repeat migrants to study the effects of recessions while controlling for selection. This also shows that wages are lower during a recession.

We have two main goals for future work. The first is to better explore selection effects. The current results on selection use only data from repeat migrants, who could be a selected sample themselves. Since we also have data on Mexicans who did not immigrate in each period, we can estimate a Heckman selection model to check the robustness of our results. In addition, our current results only look at overall changes, and do not account for general equilibrium effects. In future work, we will build a structural model that captures the general equilibrium effects resulting from changes in migrant flows.

References

AZARIADIS, C. (1975): "Implicit Contracts and Underemployment Eq," *Journal of Pol*, 83(6), 1183–1202.

BAILY, M. N. (1974): "Wages and Employment under Uncertain Demand," *The Review of Economic Studies*, 41(1), 37–50.

BERTOLA, G., A. DABUSINSKAS, M. HOEBERICHTS, M. IZQUIERDO, C. KWAPIL, J. MONTRONES, AND D. RADOWSKI (2012): "Price, wage and employment response to shocks: evidence from the WDN survey," *Labour Economics*, 19(5), 783–791.

BEWLEY, T. (1999): *Why Wages Don't Fall During a Recession*. Harvard University Press.

CAMAROTA, S. (2009): "Public Opinion in Mexico on U.S. Immigration–Zogby Poll Examines Attitudes," Center for Immigration Studies.

DONATO, K. M., J. DURAND, AND D. S. MASSEY (1992): "Stemming The Tide? Assessing the Deterrent Effects of the Immigration Reform and Control Act," *Demography*, 29(2), 139–157.

FISCHER, S. (1977): "Long-Term Contracts, Rational Expectations, and the Optimal Money Supply Rule," *Journal of Political Economy*, 85(1), 191–205.

GORDON, D. (1974): "A Neo-Classical Theory of Keynesian Unemployment," *Economic Inquiry*, 12(4), 431–459.

HALL, R. (1980): "Employment Fluctuations and Wage Rigidity," *Brookings Papers on Economic Activity*, 11(1), 91–123.

HUDDLE, D. (1993): "Dirty Work: Are Immigrants Only Taking Jobs That the Native Underclass Does Not Want?," *Population and Environment*, 14(6), 515–538.

KRAUSE, M., AND T. LUBIK (2007): "The (Ir)relevance of Real Wage Rigidity in the New Keynesian model with Search Frictions," *Journal of Monetary Economics*, 54(3), 706–727.

LESSEM, R. (2012): "Mexico-U.S. Immigration: Effects of Wages and Border Enforcement," Working paper.

MORALES, R. (1983): "Transitional Labor: Undocumented Workers in the Los Angeles Automobile Industry," *International Migration Review*, 17(4), 570–596.

NAKAJIMA, K. (2012): "The Repeated Migration Puzzle: A New Explanation," Working paper.

PISSARIDES, C. (1985): "Short-Run Equilibrium Dynamics of Unemployment, Vacancies, and Real Wages," *The American Economic Review*, 75(4), 676–690.

SAINT-PAUL, G. (1997): *Dual Labor Markets*. The MIT Press.

SCRUGGS, O. M. (1961): "The United States, Mexico, and the Wetbacks, 1942-1947," *Pacific Historical Review*, 30(2), 149–164.

THOM, K. (2010): "Repeated Circular Migration: Theory and Evidence from Undocumented Immigrants," Working paper.

Tables and Figures

Table 1: Data restriction procedure

Total number of observations	7393
Migrated in 1965 or after	-1813
Undocumented for first and last trip	-1812
Final Sample	3768
Regression for wage level:	
Pool first and last observation for repeat migrants	5459
Migration age $[17, 65]$	- 130
Missing wage information	-1805
Stayed for $<$ 15 months	- 1408
Regression for wage growth:	
Drop if wage data is missing	-1532
Number of remaining observations	2236
Made 2 or more trips	-1302
Same occupation at both trips	-431
Stayed for $\leq$ 18 months	-192
Observations for unemployment regression	311
Stayed both recession times	-9
Observations for recession dummy regression	302

Table 2: Summary statistics for undocumented immigrants migrated after 1965

Number of trips	2.05	(0.04)
Single trip	58%	
Multiple trips	42%	
Mean duration of first US trip (months)	30.97	(1.04)
Mean duration of last US trip (months)	34.41	(1.14)
Mean hourly wage at first trip (2011 US$)	$10.30	(0.14)
Median	$8.93	
Mean hourly wage at last trip (2011 US$)	$10.79	(0.14)
Median	$9.30	
Mean monthly wage at last trip (2011 US$)	$2150.52	(32.31)
Mean years of schooling	5.90	(0.08)
Mean age at first trip	26.54	(0.19)
Same occupation at first and last trip	54%	
Occupation	first trip	last trip
-Agriculture	27%	23%
-Skilled manufacturing	20%	22%
-Unskilled manufacturing	25%	25%
-Services	21%	20%

Values are calculated using 2236 observations.

Monthly wages values are calculated using 2189 observations.

Standard errors in parentheses.

Table 3: Business cycle dates (source: NBER)

Peak	Trough	Peak unemployment rate
Dec 1969	Nov 1970	6.1%
Nov 1973	March 1975	9.0%
Jan 1980	July 1980	7.8%
July 1981	Nov 1982	10.8%
July 1990	March 1991	7.8%
March 2001	Nov 2001	6.3%
Dec 2007	June 2009	10.0%

Table 4: Wage levels

	(1) Hourly wage	(2) Monthly wage	(3) Hourly wage	(4) Monthly wage
Age	0.149***	-9.086	0.139***	-10.58
	(0.0506)	(23.00)	(0.0501)	(22.88)
Age squared	-0.00242***	0.0705	-0.00228***	0.0956
	(0.000743)	(0.314)	(0.000736)	(0.313)
Agriculture	-0.761***	-142.3**	-0.723***	-137.6**
	(0.165)	(65.22)	(0.163)	(65.10)
7-12 years education	0.269	36.62	0.238	27.26
	(0.199)	(78.18)	(0.197)	(78.06)
13+ years education	0.216	40.17	0.339	48.35
	(0.426)	(208.1)	(0.422)	(207.4)
Recession year	-0.260	-45.61		
	(0.191)	(79.86)		
Year	-0.0892***	-8.226**	-0.100***	-11.79***
	(0.00920)	(3.895)	(0.00924)	(4.298)
Unemployment rate			-0.358***	-50.56**
			(0.0570)	(25.13)
Constant	184.7***	18529.6**	208.6***	25941.2***
	(18.18)	(7750.9)	(18.34)	(8629.9)
Observations	1925	743	1925	743
Adjusted R^2	0.060	0.005	0.078	0.010

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Wage Growth

	(1)	(2)	(3)	(4)
Δ Recession year	-1.152**	-1.133**		
	(0.499)	(0.499)		
Δ Unemployment			-0.354**	-0.375**
			(0.167)	(0.167)
Interval	0.211***	0.279***	0.205***	0.271***
	(0.036)	(0.0547)	(0.0353)	(0.0540)
IRCA dummy	-1.401**		-1.202**	
	(0.557)		(0.556)	
Constant		-1.02**		-0.942**
		(0.471)		(0.466)
Observations	302	302	311	311
Adjusted R^2	0.105	0.0821	0.106	0.0849

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 1: Year of first migration

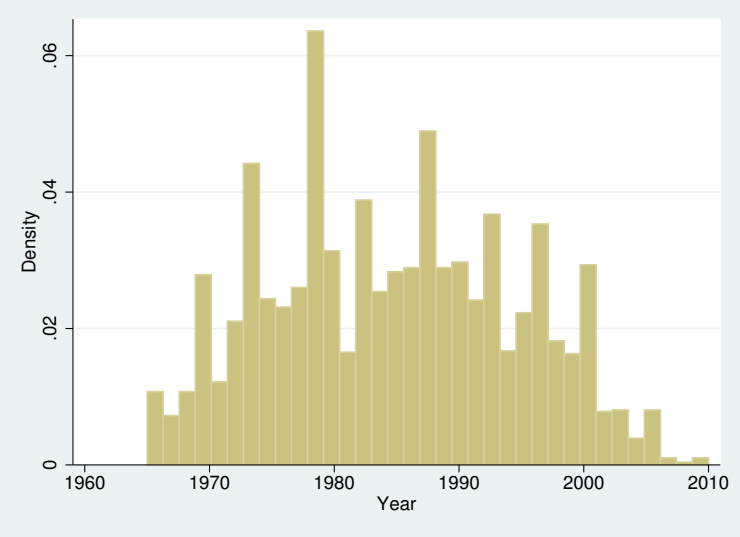

Figure 2: Year of last migration

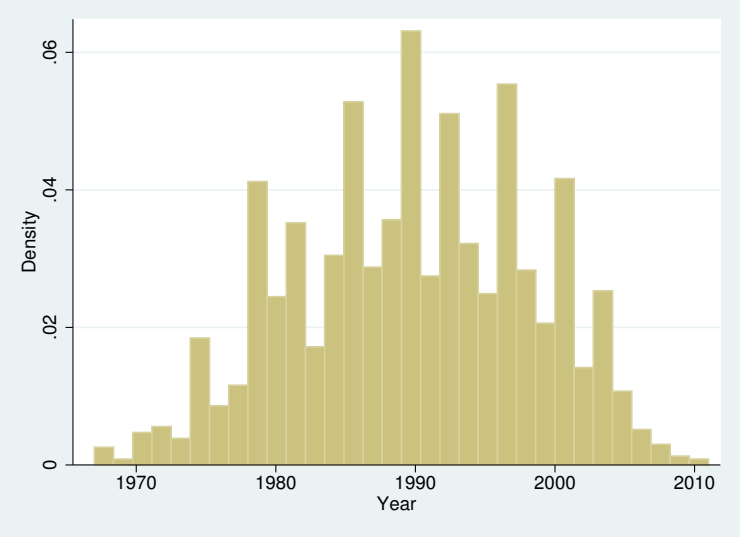

Figure 3: Unemployment Rate

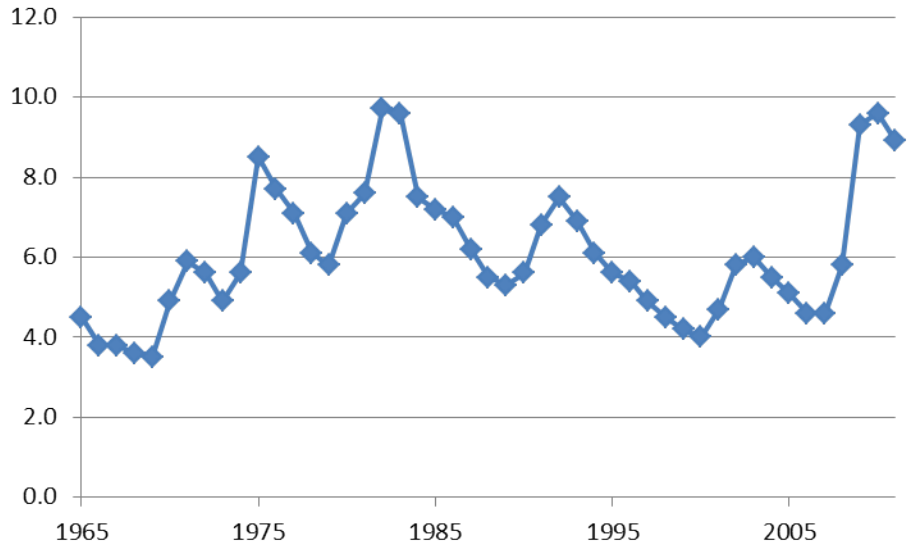

Figure 4: Selection Effects