National Center for Border Security and Immigration Research Lead: The University of Arizona (Tucson, Arizona)



# BORDERS Awards in Immigration Research: New Immigrant Survey Final Report

Does Legalization Improve the Occupational Mobility Trajectories of Unauthorized Latin American Immigrants?

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Department of Homeland Security - Grant No. 2008-ST-061-BS0002





"This research was supported by the United States Department of Homeland Security through the National Center for Border Security and Immigration under grant number 2008-ST-061-BS0002. However, any opinions, findings, and conclusions or recommendations in this document are those of the authors and do not necessarily reflect views of the United States Department of Homeland Security."

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## Abstract

Unauthorized experience is common among Latin American immigrants in the United States that receive legal permanent residence. Although previous research has demonstrated that unauthorized Latino immigrants experience a wage penalty relative to legal immigrants in the US labor market, it is unclear if transitioning from unauthorized to legal status acts as a mechanism of occupational mobility for immigrants in the contemporary immigration context. Using panel data from the New Immigrant Survey and the Survey of Income and Program Participation, I examine how labor market outcome-generating processes change across two points in time for four comparison groups: previously unauthorized immigrants that receive legal status, continuously unauthorized immigrants, continuously legal immigrants, and US-born Hispanics. The results indicate that legalization does significantly improve the labor market position of previously unauthorized Latin American immigrants. In addition to gains in hourly wages, legalized immigrants experience an increase in their structural position in their local labor market and are less likely to be employed in marginal occupations post-legalization. I estimate that the wages of legalized immigrants are 25 percent higher than they would have been without gaining LPR status. In regards to policy, this report's findings suggest that expanded access to legalization for the unauthorized population could assist in reducing some of the economic disadvantage currently experienced by many unauthorized immigrants and their families.

## Introduction

### Background

In recent decades, immigration policy in the United States has focused almost exclusively on enforcement mechanisms, while failing to address the presence of the estimated 11.5 million unauthorized immigrants presently residing in the country (Massey 2007; Department of Homeland Security 2011). In so doing, US immigration law has contributed to a policy context where immigrants are highly stratified in the labor force by legal status, with the unauthorized experiencing significant disadvantages relative to legal immigrants in the labor market (Massey, Durand, and Malone 2003; Donato and Sisk 2012). For example, Hall, Greenman and Farkas (2010) find that, among Mexican immigrants, unauthorized men earn hourly wages that are 17 percent lower than that of legal immigrant men; for women, the wage disparity is 9 percent.

Although the United States has not implemented a large-scale legalization program for unauthorized immigrants since the passage of the Immigrant Reform and Control Act (IRCA) in 1986, research indicates that transitions from unauthorized to legal immigrant status do in fact occur. Estimates indicate that a third of immigrants that received legal permanent resident (LPR) status in 1996 had previous unauthorized experience (Massey and Malone 2002; Jasso et al 2008). Further, research using more recent data finds that approximately 40 percent the 700,000 immigrants receiving LPR status in 2003 had, at one time, been present in the United States without authorization (Jasso 2011).

Unauthorized experience among LPR recipients, however, varies widely by national origin; while relatively few immigrants from countries like China (11%) and India (3.6%) have previous non-legal experience, those from Latin American nations like Mexico (73.7%) and El Salvador (65.4%) have high levels of previous unauthorized experience (Jasso et al. 2008). This indicates that while non-legal experience is occurs across national origins, it is most highly concentrated among legal





permanent resident recipients from Latin America. However, as Massey (2011) notes, further research is required that examines the impact of legalization on labor market experiences; this is particularly true for immigrants from Latin America for whom unauthorized status is a more common occurrence.

Previous research on immigrants that received amnesty through the IRCA indicates that legalization led to increased wage growth for previously unauthorized immigrants (Rivera-Batiz 1999). Kossoudji and Cobb-Clark (2002) find that wage gains following legalization were largely driven by legalization (and the greater returns to human capital that occurred as a result), and not by macroeconomic changes experienced by the workforce at-large. Kossoudji and Cobb-Clark estimate that wages for previously unauthorized immigrant men were 9% higher than they would have been without receiving legal status.

However, the consequences of legalization for immigrant labor market outcomes in more recent years are unclear. Research suggests that mobility prospects for immigrants – both legal and not – have deteriorated, as returns to education have declined and wages have stagnated (Massey and Gelatt 2010; Gentsch and Massey 2011). These trends prompted Massey and Pren (2012:15) to argue that Latino immigrants have "fallen from their historical position in the middle of the American socioeconomic distribution...to a new position at or near the bottom." The diminished prospects for mobility for immigrants in the labor market hint that mobility for legalized immigrants may not be as rapid or as substantive as in years past.

This report examines the consequences of immigrant legal status transitions for a wide variety of occupational mobility outcomes including hourly wages, occupational characteristics, and a structural measure that indicates the individual's position in their regional, gender-specific labor market. In addition to the New Immigrant Survey, I also use data from the 2001 wave of the Survey of Income and Program Participation to create multiple comparison groups of Latin American immigrants by varying legal statuses, including a sample of legal immigrants from the New Immigrant Survey with previous unauthorized experience in the United States labor market.

### **Research Questions**

This project investigates the following research questions:

- 1. Does legalization lead to structural change in how labor market outcomes are generated for previously unauthorized immigrants?
- 2. How do the individual determinants of labor market outcomes like education, gender, and national origin differ from pre- to post-legalization?
- 3. What is the projected wage-growth benefit experienced by immigrants that transition from unauthorized to legal? What is the projected wage-growth penalty of unauthorized immigrants that do not receive legal status?

### Data

In order to explore the above research questions, I rely on three sources of survey data: the 2003 New Immigrant Survey (NIS), the 2001 Survey of Income and Program Participation (SIPP), and the Current Population Survey (CPS). With the NIS and the SIPP, I create one treatment group and four distinct comparison groups to carry out a "before and after" comparison of how legalization shapes the occupational trajectories of immigrants. The "before and after" untreated comparison group approach provides researchers with the ability to rule out competing, exogenous explanations, and is strengthened with the inclusion of multiple comparison groups (Meyer 1995). Although the NIS and the SIPP vary in focus and scope, each contributes a specific population to the analysis, and there are sufficient similarities across the data sets for useful comparisons. The third data source, the Current Population Survey, is used to create occupation-specific dependent variables, using a process described in detail below. In what follows, I describe the contribution of each data source to the analysis.





<u>New Immigrant Survey (NIS)</u> The NIS provides a sample of immigrants who have both legal and unauthorized migration histories and who attained legal permanent resident status in 2003. I use retrospective employment and migration histories from respondents and then match labor force experiences and legal status at two points in time: year of first U.S. job and year of current U.S. job (see Akresh 2008 and Hill et al. 2010 for examples). Formerly unauthorized immigrants that receive LPR status comprise the treatment group, and the continuously legal immigrants make up one of the four comparison groups.

<u>Survey of Income Participation and Program (SIPP)</u> I also use data from the 2001-2003 panel of the SIPP. The SIPP is a longitudinal, nationally representative survey conducted by the U.S. Census Bureau, and contains detailed information on the demographic, income, and labor force characteristics of the respondents. Most importantly for this analysis, the SIPP includes variables on immigrant visa status and participation in public assistance programs that have been recently used by Hall, Greenman, and Farkas (2010) to deduce the legal status of immigrants. Using this method, I examine the labor market outcomes of continuously unauthorized and continuously legal immigrants, as well as U.S.-born Hispanics (the remaining control groups). The SIPP, when paired with the NIS, permits me to compare the experiences of the U.S.-born to immigrants who have only unauthorized experience or legal experience during the study period and those that were previously unauthorized but that transitioned into LPR status.

<u>Current Population Survey (CPS)</u> In addition to the NIS and the SIPP, this analysis also uses data from the Current Population Survey. The CPS is a monthly, nationally representative survey of roughly 50,000 households collected jointly by the Bureau of Labor Statistics and the US Census Bureau. The March CPS samples from 1995 to 2003 are used in this analysis to create year, gender, region, and occupation-specific response variables that provide measures of characteristics about particular occupations. This includes the share of workers in each occupation that are high school dropouts or qualify as a member of the working poor, as well as a categorical variable that reflects the median wages in that specific occupation.

### Use of Data Sets

Using these data sources, I examine respondents in the NIS and SIPP across time, using a variety of dependent variables. The first is straightforward: hourly wages earned at the individual's job, which is provided directly from the respondent in the NIS and the SIPP. This provides a baseline understanding of how legal status pathways shape employment outcomes. However, it is plausible that respondents will not experience large gains in wages due to legalization, even as meaningful changes in employment opportunities have taken place. For this reason, I also use a series of dependent variables that indicate the respondents' position in the broader economic context, which I refer to as "occupation-specific" variables.

The "occupation specific" variables are designed to indicate structural characteristics about an individual's occupation and how it is positioned in the local economic hierarchy. The NIS and SIPP both provide information on detailed occupational codes for each employed respondent. As a result, these codes can be matched to a nationally representative data set like the Current Population Survey. To provide even more detail to these measures, I match occupations between the NIS/SIPP and the CPS by year, gender, and geographic region; as a result, the occupationspecific variables reflect the characteristics of occupations specific to that individual's local labor market. Using descriptive statistics generated from the CPS about the characteristics of workers in a particular occupation, then, I can assess whether and how the relative occupational position of that respondent changes over time. As Wright and Dwyer (2003) note regarding the use of this method, occupation-specific variables allow researchers to examine individual outcomes within the broader economic context.

To create the occupational-wage quintile variable, I use hourly wages for all employed workers in a given year in the CPS to calculate a median hourly wage for each occupational category by gender and geographic region. Then, I use the median hourly wages for each occupation to





construct occupational-wage quintiles, where occupations with the lowest median wages are located in the first quintile, and occupations with the highest median wages are located in the fifth quintile. Similarly, the other gender/region/year/occupational-specific variables also use characteristics of occupations as measured in the CPS to describe different attributes of job quality. This includes the percent of workers in that occupation that are high-school dropouts and the percent that earn 150 percent or below of the federal poverty line (classified as the "working poor"). These variables are referred to as the "low-skill density" and the "working poor density" variables, respectively.

### Methods

Using the four distinct groups generated from the NIS and SIPP datasets, I utilize a difference-in-differences, comparison group estimation approach, which is widely used to study the impact of policy changes and has been used in past research on legalization (Kossoudji and Cobb-Clark 2002). With this method, I examine how changes in the labor market outcomes for the treatment group (legal status transitioners<sup>1</sup>) diverge from shifts in outcomes for the control groups during the period in which the treatment (transitioning from unauthorized to legal) was introduced (Meyer 1995).

In this analysis, hourly wages is modeled as a continuous, logged variable using OLS regression. The occupational-wage quintile variable ranges from 1 to 5 and is modeled as a categorical variable using an ordinal logistic regression model. The low-skill and working poor density variables range from 0 to 1, and are modeled as continuous variables; these variables are also modeled using OLS regression. Following Baltagi (2008), I adopt the following panel data regression equation specification (equation 1):

$$Y_{it} = \beta_t X_{it} + \gamma_t X_i^* + \theta_t t + \varepsilon_{it}$$

where each variable is followed by the double subscript of both *i* and *t*, which denotes the indexing by both individuals and time. Y represents the dependent variable, X includes time-variant characteristics,  $X^*$  includes time-invariant characteristics, *t* captures unmeasured period effects, and e is an error term. The model specified in equation 1 is used in each of the three phases of the analysis described above.

I conducted the analysis using both balanced and unbalanced samples; given that the substantive conclusions are the same for both analyses, I follow Kossoudji and Cobb-Clark (2002) and present the results from the unbalanced samples. Moreover, the samples analyzed here include both men and women. In order to better account for gender differences in the outcome-generating process, I include both a dummy variable that indicates whether the respondent is female or male and an interaction term between mean-centered years of education and gender. Other control variables include age, age-squared, national origin, year of migration, and time period.

In the first phase of the analysis, I test the hypothesis that the wage and other outcomegenerating processes do not differ from Time 1 and Time 2 for all groups in the analysis. In the case of hourly wages, for example, the expectation is that workers that transition from unauthorized to LPR status will experience a statistically significant shift in the equations that predict wages due to the treatment, and that this shift will not be visible for workers in the comparison groups that did not experience a transition from unauthorized to legal status.

The second phase of the analysis examines the trajectories in hourly wages and other outcome variables between Time 1 and Time 2<sup>2</sup> across all of the groups in the analysis by examining the individual determinants of the separate regression models by group. These models will allow for

<sup>&</sup>lt;sup>1</sup> In this report, "transitioners" refers to immigrants that transition from unauthorized to legal immigrant status. <sup>2</sup> In this report, "Time 1" and "Time 2" refers to the first and last data points for each respondent in the sample. For the respondents that transition from unauthorized to legal status, the treatment will occur between those two data points; the untreated control groups do not experience legal status shifts from Time 1 and Time 2.





the comparison of covariates such as national origin, education level, and gender across models predicting the dependent variables at Time 1 and Time 2, and provide a insight into of how labor force outcomes shifted over time by comparison group.

In the third and final phase of the analysis, I calculate the projected growth in hourly wages that occurs post-legalization, as well as the penalty in wage growth experienced by immigrants that remain unauthorized and do not receive legalization. I recognize that because a national-level amnesty program would constitute an exogenous economic shock that I do not account for in these models, this can only be interpreted as a rough estimate of the impact that a large-scale legalization program would have on the wages of immigrant workers. Regardless, the results will provide some clue as to the kind of labor market mobility for immigrants that could be expected if a legalization program like IRCA were to be implemented. To do this, I apply the returns for the legal status transitioners (from the NIS) produced in the second part of the analysis to the sample means of the continuously unauthorized group (from the SIPP) to calculate what their wages would be if they had received LPR status; likewise, I also apply the returns for the continuously unauthorized immigrants to estimate the penalty of continued unauthorized status.

## **Results/Findings**

Table 1

Table 1 presents the national origin distribution, percent female, and education distribution for each sample in the analysis. This provides a baseline understanding of the differences across the samples. In regards to national origin, the NIS samples are much more diverse than the SIPP samples; the SIPP samples are over 70 percent Mexican, while only 41 percent of the unauthorized to legal sample from the NIS is Mexican. Interestingly, the sample with the highest percentage of females is the unauthorized to legal sample (52 percent), while the comparison group with the fewest females is the continuously unauthorized sample at 27.5 percent.

	NIS		SIPP				
	Unauthorized to	Cont.	Cont.	Cont.	US-Born		
	Legal	Legal	Unauthorized	Legal	Hispanics		
National Origin							
Mexico	41.9	13.9	78.0	70.1			
Central America	13.2	6.2	13.9	15.6			
Other Latin America	44.7	79.8	7.9	14.2			
Gender							
Female	51.8	44.3	27.5	40.8	49.6		
Education Level							
Less than High School	43.5	37.6	60.1	47.3	21.1		
High School	20.9	18.8	28.3	27.0	34.5		
More than High School	35.4	43.4	11.6	25.6	44.4		
Ν	1249	964	816	2914	3921		

Lastly, although the unauthorized to legal sample is less educated than the continuously legal NIS sample, the immigrants from the NIS are more highly educated overall than the immigrant groups from the SIPP. 60 percent of the continuously unauthorized immigrants have less than a high school





degree, compared to 43.5 percent of the unauthorized to legal sample. Even though the unauthorized to legal sample is not the least educated of all the groups in the analysis, the share of that group with less than high school is still more than double that of the US-born Hispanic group. As expected, this table indicates that the immigrants from Latin America that receive LPR status from the NIS are not a perfect subsample of Latin American immigrants in the US overall; most notably, the NIS immigrants are more educated and less likely to originate from Mexico.

## Figure 1

Figure 1 presents the average value of each labor market outcome at Time 1 and Time 2 for each comparison group in the analysis. This provides a descriptive measure of the effect that legalization has on labor market outcomes. Panel A displays average hourly wages at both time points across groups, followed by results for the occupational-wage quintile, working poor density, and low-skill density variables in Panels B, C, and D, respectively. The symbol in the upper-right hand corner of each graph indicates whether the difference between the mean is significant from Time 1 to Time 2 for that particular sample; a star indicates significance at the 95% confidence level, while a "n.s." indicates that the difference is not statistically significant.

The results in Panel A from Figure 1 indicate that, from Time 1 to Time 2, immigrants that transitioned from unauthorized to legal saw an increase in hourly wages of two dollars, which is a statically significant increase. The continuously legal sample from the NIS, on the other hand, did not experience a change in hourly wages, as their average wage remained steady at \$10.40 an hour. All three of the comparison groups from the SIPP did experience statistically significant increases in hourly wages. However, relative to the immigrants from the NIS that underwent a legal status transition, the gains in hourly wages were relatively small. The gains experienced by the SIPP samples were around \$0.70 per hour, compared to the two dollar increase in hourly wages experienced by the previously unauthorized from the NIS.

The averages for the occupational characteristic variables presented in Panels B, C, and D all provide similar results. In all three cases, the immigrant group that experiences a transition from unauthorized to legal is the only group to see a statically significant change in the mean of the outcome from Time 1 to Time 2. Panel B indicates that the average occupational-wage quintile value increases from 1.97 to 2.13 for legal status transitioners, suggesting that, relative to their first labor market experience in the United States, these immigrants experienced a tangible upwards shift in their position in their own regional economic hierarchy. Similarly, transitioners also saw a decrease in the percent of workers in their occupation that is defined as working poor (down to 21% from 25%) and the percent of workers in their occupation that is a high school dropout (down to 25% from 29%). Like Panel A, Panels B through D also indicate that the NIS sample that shifted from unauthorized to legal enhanced their occupational position from Time 1 to Time 2 in a way not experienced by the other four comparison groups. To further explore this shift, I now turn to the multivariate results.







## Research Question 1: Table 2

Table 2 displays the results for tests of structural change in the outcome-generating processes from Time 1 to Time 2 for all samples in the analysis. A result of "Reject" indicates that there is evidence of a structural change across time periods, while a result of "Do not reject" suggests there is no evidence of a structural change. Like in Figure 1, the results for each dependent variable are presented in Panels A-D.





	Test Result	$X^2$ Statistic (df)	Sample Size
	Par	nel A. Hourly Wa	ges
IS			
Unauthorized to Legal	Reject	17.33 (9)	724
Cont. Legal	Reject	20.04 (9)	580
IPP			
Cont. Legal	Do not reject	12.50 (9)	2806
Cont. Unauthorized	Do not reject	8.96 (9)	780
US-Born Hispanic	Do not reject	12.57 (9)	3807
	Panel B. O	ccupational-Wag	e Quintile
IS			
Unauthorized to Legal	Reject	22.39 (12)	1044
Cont. Legal	Do not reject	12.00 (12)	826
Cont. Legal	Do not reject	9.46 (12)	2873
Cont. Unauthorized	Do not reject	17.85 (12)	799
US-Born Hispanic	Do not reject	6.20 (12)	3847
	Panel C	C. Working Poor I	Density
US	-		
Unauthorized to Legal	Reject	37.20 (9)	1044
Cont. Legal <i>IPP</i>	Do not reject	8.34 (9)	826
Cont. Legal	Do not reject	8.72 (9)	2859
Cont. Unauthorized	Do not reject	9.13 (9)	795
US-Born Hispanic	Reject	19.03 (9)	3829
	Pane	l D. Low-Skill De	nsity
IS			
Unauthorized to Legal	Reject	26.94 (9)	1044
Cont. Legal	Do not reject	10.37 (9)	826
Cont. Legal	Do not reject	13.03 (9)	2859
Cont. Unauthorized	Do not reject	9.94 (9)	795
	Reject	27.51 (9)	3829

The results in Table 2 indicate the legal status transitioners are the only group that experiences structural change in the outcome-generating processes of all four labor market outcome variables examined. Although the continuously legal from the NIS experience change from Time 1 to Time 2 in how hourly wages are generated, that sample does not experience structural change for any other outcome. Similarly, the US-born Hispanic sample from the SIPP only experiences shifts in how the working poor and low-skill density variables are generated, while the outcome-generating process for hourly wages and the occupational-wage quintile variable remain constant across time.

Thus, the results in Table 2 mirror the descriptive results displayed in Figure 1. Table 2 suggests that, relative to the comparison groups included in the analysis (and the foreign-born comparison groups, in particular), the treatment group of legal status transitioners experiences a substantial, tangible shift in how their labor market outcomes are generated. In other words, the process that determines hourly wages, the occupational-wage quintile, and the density of working poor and low-skill workers in their occupation was significant different post-legalization compared to when the transitioners were unauthorized workers. As the descriptive results in Figure 1 indicate, that structural change in the outcome-generating processes resulted in an improved position in the





labor market hierarchy for the legal status transtioners. To further examine how legalization impacts the occupational outcomes of previously unauthorized immigrant workers, I now turn to an examination of the individual determinants in each model in Time 1 and 2.

### Research Question 2: Tables 3A and 3B

Tables 3A and 3B present the determinants of hourly wages for each sample in the analysis.<sup>3</sup> Table 3A displays results from the NIS samples, while Table 3B displays results from the SIPP samples. Column A of Table 3A displays results for the NIS sample that transitions from unauthorized to legal, while Column B shows results from the continuously legal sample. For Table 3B, Columns A-C display results from the respective SIPP samples: the continuously unauthorized, the continuously legal, and US-born Hispanics. Results from three models are shown for each sample: results from Time 1, results from Time 2, and the restricted model that includes information from both Time 1 and Time 2.

	A. Una	uthorized	to Legal	B. Cont. Legal			
	Unrestricted			Unrestricted			
	Time 1	Time 2	Restricted	Time 1	Time 2	Restricted	
National Origin							
Mexico	-0.08	-0.01	-0.01	0.24*	0.34**	0.29**	
	(0.08)	(0.06)	(0.05)	(0.12)	(0.07)	(0.07)	
El Salvador/Guatemala	0.05	-0.01	0.04	0.17	0.09	0.12	
	(0.10)	(0.09)	(0.07)	(0.16)	(0.10)	(0.10)	
Other Latin Am. (ref)							
Gender							
Female (ref=male)	-0.11	-0.13*	-0.11*	-0.05	-0.18**	-0.14**	
	(0.07)	(0.06)	(0.05)	(0.08)	(0.05)	(0.05)	
Education	()	()	()	()	()	()	
Years of Educ. <sup>a</sup>	0.01	0.02^	0.01^	0.03*	0.03**	0.03**	
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	
Gender-Educ. Interaction	(010-)	(010-)	(0.00-7)	(0101)	(0.01)	(0101)	
Female*Years of Educ. <sup>a</sup>	0.02	0.06	0.03	-0.00	0.01	0.00	
	(0.04)	(0.05)	(0.07)	(0.02)	(0.01)	(0.01)	
English Proficiency	(0101)	(0.02)	(0.07)	(0.02)	(0.01)	(0.01)	
Fair/Poor (ref)							
Good/Very Good	0.10	0 14*	0 15**	0.10	0 18**	0 16**	
	(0.07)	(0.06)	(0.05)	(0.08)	(0.05)	(0.05)	
Year of First US Job	(0.07)	(0.00)	(0.02)	(0.00)	(0.02)	(0.02)	
1995-1999	0 84**	0 21**	0.12*	0.27*	0 36**	0.32**	
1770 1777	(0.27)	(0.06)	(0.05)	(0.12)	(0.07)	(0.06)	
2000-2003 (ref)	(0.27)	(0.00)	(0.02)	(0.12)	(0.07)	(0.00)	
Time Period							
Time 2 (ref = Time 1)			0 19**			-0.00	
1 = 2  (ref = 1 = 1  (ref = 1)			(0.04)			(0.04)	
N	275	440	724	220	360	580	

Note: Time 1 and Time 2 models are OLS regression models; Restricted models are multi-level OLS regression models with the respondent as the second level; Models include controls for age/age-squared; a. Years of education is mean-centered.

<sup>&</sup>lt;sup>3</sup> Due to space restrictions, only tables displaying the results for hourly wages are shown in this report. Tables for the occupational wage-quintile, low-skill density, and working poor density variables are available upon request from the author.





The results indicate that for the legal status transitioners, there are no significant nationalorigin differences in hourly wages at either time period. This finding also holds true for the continuously unauthorized immigrants from the SIPP. On the other hand, both of the continuously legal immigrant comparison groups show signs of hourly wage differences by national origin; for

	A. Cont. Unauthorized		B. Cont. Legal			C. US-Born Hispanic			
	Unres	Unrestricted		Unrestricted			Unrestricted		
	Time 1	Time 2	Restricted	Time 1	Time 2	Restricted	Time 1	Time 2	Restricted
National/Hispanic Origin									
Mexico	0.15	-0.08	0.01	-0.06	-0.08^	-0.07^	0.03	0.03	0.02
	(0.10)	(0.08)	(0.07)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)	(0.02)
Central America	0.08	-0.10	-0.02	-0.05	-0.11*	-0.07^	0.04	0.00	0.01
	(0.11)	(0.10)	(0.08)	(0.05)	(0.05)	(0.04)	(0.06)	(0.06)	(0.05)
Other Latin Am. (ref)									
Gender									
Female (ref=male)	-0.19**	-0.29**	-0.24**	-0.19**	-0.20**	-0.20**	-0.21**	-0.20**	-0.20**
	(0.06)	(0.05)	(0.04)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)
Education									
Years of Educ. <sup>a</sup>	0.01	0.01	0.01^	0.03**	0.02**	0.02**	$0.06^{**}$	0.07**	0.07**
	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)
Gender-Educ. Interaction									
Female*Years of Educ. <sup>a</sup>	0.00	0.03*	0.02	0.02*	0.02**	0.02**	0.02*	0.02*	0.02*
	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Year of US Immigration ()	FB)								
/Year of Labor Force Entr	y (USB)								
Pre-1996	0.08	0.09^	0.08*	0.25**	0.19**	0.21**	0.06	$0.11^{**}$	0.08*
	(0.06)	(0.05)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)	(0.03)
1996-2001(ref)									
Time Period									
Time 2 (ref = Time 1)			0.09**			0.05**			0.06**
			(0.03)			(0.02)			(0.01)
N	359	421	780	1290	1516	2806	1692	2115	3807

Note: Time 1 and Time 2 models are OLS regression models; Restricted models are multi-level OLS regression model with the respondent as the second level; Models include age and age-squared; a. Years of education is mean-centered.

example, among legal immigrants from the NIS, Mexicans earn significantly more per hour compared to other Latin American immigrants, while in the SIPP there is marginal evidence that Mexicans and Central Americans earn slightly less than other Latin American immigrants.

In regards to gender, I find that, among all the SIPP samples, females are disadvantaged at both Time 1 and Time 2. For the NIS samples, there is evidence that gender disparities emerge over time among immigrant groups that eventually achieve LPR status. For both the unauthorized to legal sample and the continuously legal sample in the NIS, there is no significant difference between women and men in hourly wages at Time 1, but at Time 2 there is a statistically significant gender disparity. This suggests that while gender differences among future LPR recipients may be relatively small upon arrival in the United States, over time women become disadvantaged relative to men in the US labor market. This process does not appear to be specific to the experience of immigrants that transition from unauthorized to legal, but, more broadly, to the labor market experiences of Latin American immigrants that receive LPR status. For transitioners in particular, I find that rather than reduce the inequality between immigrant men and women in the labor market, legalization may contribute to gender wage disparities.

While education is a consistent, statistically significant predictor of higher wages for continuously legal immigrants and US-born Hispanics, Tables 3A and 3B indicate that the effect of education is much weaker for immigrants with unauthorized experience. For the continuously unauthorized immigrant sample from the SIPP, there is no statistically significant relationship between hourly wages and education at either Time 1 or Time 2. For legal status transitioners,





education does not have a significant effect on wages at Time 1; however, at Time 2, there it has a marginally significant positive effect on hourly wages, suggesting that legalization does allow for previously unauthorized to take better advantage of human capital. However, the fact that the effect of education is weaker for previously unauthorized immigrants at Time 2 compared to continuously unauthorized immigrants at Time 2 also suggests that having previous unauthorized experience can have a dampening effect on the extent to which immigrants can maximize returns to human capital.

Lastly, I examine the effect of time period on the hourly wages of the treatment group and comparison groups. Among the immigrant groups, the only sample that does not experience a significant increase in wages at Time 2 from US experience at the conventional significance level is the continuously unauthorized sample from the SIPP. This suggests that while the continuously legal and the legal status transitioners benefit from more experience in the US labor market, the wages of continuously unauthorized workers are only marginally impacted by US work experience.

Moreover, I also find that those that transition from unauthorized to legal experience a 19% wage increase from Time 1 to Time 2; on the other hand, when taking other variables into account, the continuously legal from the NIS do not experience a significant increase in wages across time. For the SIPP samples, the continuously unauthorized experience the largest percent increase in hourly wages over time at 9%, with the continuously legal having the smallest at 5%. Overall, it appears that the legal status transitioners experience the greatest growth in wages from Time 1 to Time 2, even when taking other variables into account.

### Tables 5A-7B<sup>4</sup>

Additional analysis of the occupational-wage quintile, low-skill density, and working poor density variables indicates similar findings as in the analysis of hourly wages. For example, national origin effects, to the extent to which they appear, are much more likely to emerge among continuously legal immigrant samples than the samples with unauthorized experience; this suggests that when it occurs, unauthorized experience trumps the national-origin characteristics that might otherwise influence labor market outcomes. There are also persistent gender disparities found among all groups across outcomes; further, the pattern of growing inequality between female and male immigrants in the NIS that emerged in the analysis of hourly wages was also present when examining other outcomes.

In regards to the effect of education on the occupation-specific outcomes, it is clear that immigrant groups, irrespective of legal status, benefit much less from additional years of education when compared to US-born Hispanics. This reflects the findings from previous research on the diminishing returns to education for immigrants from Latin America. However, as this analysis suggests, the fact that the foreign-born receive smaller returns to education that the US-born does not appear to eliminate the benefits of legalization for previously unauthorized immigrants.

Lastly, as was the case with hourly wages, immigrants transitioning from unauthorized to legal are the only group to experience a statically significant decline in the density of low-skill workers in their occupations in Time 2, suggesting a meaningful improvement in the job quality of the occupations held by previously unauthorized workers. On the other hand, the restricted model for the continuously legal immigrants from the SIPP indicates that the group experienced a marginally significant decline in their occupational-wage quintile, suggesting that, all else equal, this group lost ground during the time period under study. This portion of the analysis, then, suggests that the legal status transitioners experienced upward occupational mobility from Time 1 to Time 2 in ways that the other comparison groups in the analysis did not.

#### Research Question 3: Table 4

<sup>&</sup>lt;sup>4</sup> Tables 5A-7B are not shown in this report, but are available from the author upon request.





Table 4 displays the results from the rough projections of both the benefit of legalization and the penalty of unauthorized status. The first two columns display the average hourly wage in Time 1 and Time 2, and the last column shows the percent growth in hourly wages across time periods. Lines 1-4 show the average hourly wage (generated from the respective means and returns of each sample) of four comparison groups from the NIS and SIPP. Lines 5 and 6 display estimates

	Average H	ourly Wage	Growth in
-	Time 1	5) Time 2	- Average Hourly Wage (%)
NIS	10001	1000 2	
1. Unauthorized to Legal (transitioners)	7.52	9.41	25.13
2. Cont. Legal	8.70	9.02	3.68
SIPP 3. Cont. Unauthorized 4. Cont. Legal	7.8 9.15	8.56 9.61	9.74 5.03
<b>Projection of Benefit:</b> 5. SIPP cont. unauthorized means, NIS transitioner returns*	7.28	9.09	24.86
<b>Projection of Penalty:</b> 6. NIS transitioner means, SIPP cont. unauthorized returns*	7.51	7.55	0.53

generated from the means of one sample and the returns of another, allowing for a rough projection of how legalization or unauthorized status shapes wage growth over time. The exact numbers in lines 5 and 6 should be treated with caution, as these are only estimates; the variables in the regression equations across samples are not identical due to the fact that some variables are defined in different ways, and these are not the same group of workers. Nonetheless, the general trends that emerge in Table 4 do provide insight the advantage of legalization and the price of unauthorized status.

For the NIS samples in lines 1 and 2, the immigrants transitioning from unauthorized to legal undergo much larger wage growth than the continuously legal immigrants. While the continuously legal sample experiences less than 4% growth, the transitioners experience 25% growth in average hourly wages from Time 1 to Time 2. For the SIPP samples in lines 3 and 4, the continuously unauthorized experience 9.7% growth in wages over time, compared to 5% growth for the continuously legal.

In line 5, I use the means of the continuously unauthorized SIPP sample and the returns from the NIS transitioners to estimate a projected growth in hourly wages that the unauthorized immigrants in the SIPP would experience had they received legalization in 2003. The results indicate that, at 24%, the wage growth that would hypothetically be experienced by the continuously unauthorized workers is comparable to that experienced by the NIS transitioners. This indicates that the structural change in how wages are generated across time periods for the NIS transitioners might also apply to the continuously unauthorized workers in the SIPP.





In line 6, I use the means of the NIS legal status transitioner sample, but apply them to the returns of the continuously unauthorized immigrants from the SIPP. This is a rough estimate of the wage penalty that the transitioners would have experienced had they not received legal status. While the results in line 1 show that NIS transitioners did indeed experience robust wage growth from Time 1 to Time 2, when applying the returns from the unauthorized SIPP sample, the NIS transitioners experience wage stagnation. This suggests that the 25% growth in hourly wages that the immigrants shifting from unauthorized to legal experienced was largely a function of legalization, and that without it those workers would have seen little change in their hourly wages over time.

### Summary

Overall, the evidence from this analysis suggests that legalization is associated with improvement in labor market outcomes for previously unauthorized immigrants. As Figure 1 shows, the group of immigrants that undergoes a legal status transition from Time 1 to Time 2 experiences a statistically significant increase in hourly wages and their occupational-wage quintile, while also experiencing significant declines in the share of low-skill and working poor workers in their occupations. The legal status transitioners are the only one of the four comparison groups to experience significant improvement in all four of the dependent variables, indicating that legalization did lead to enhanced occupational mobility for those workers.

As the results in Table 2 indicate, the legal status transitioners are also the only comparison group to experience a statistically significant structural change in the outcome-generating process of each dependent variable. In other words, the process that determined the hourly wages, for example, of legal status transitioners at Time 1 was significantly different at Time 2, indicating that the receipt of legal status dramatically changed how that labor market process functioned for that group of workers. Despite these structural changes, however, the results in Tables 3A and 3B indicate that female immigrants are still significantly disadvantaged relative to male workers following legalization. Moreover, there is some evidence that legalization allows previously unauthorized immigrants to maximize their returns to education, although the effect of education on wages for immigrants overall is not as strong or consistent as it is for US-born Hispanics.

In Table 4 I estimate the projected benefit of receiving legal status, as well as the projected penalty of not experiencing legalization. The projections indicate that receiving legal status provides a substantial boost in hourly wages for immigrants. For example, although the continuously unauthorized immigrant group only experienced 9.7 percent wage growth over the course of the time period examined in the analysis, they are projected to have received 24.8 percent wage growth if they had received legal status. On the other hand, if the legal status transitioner group had not received legal status and remained unauthorized, they are projected to only experience 0.5 percent wage growth, as opposed to the observed 25 percent wage growth.

Together, the evidence points to legalization as an effective mechanism of occupational mobility. Compared to when they worked as unauthorized immigrants, legal status transitioners earn more per hour and work in occupations with higher median earnings, lower levels of high school dropouts, and fewer earning below 150 percent of the poverty line. Further, the legal status transitioners experience structural change in how their labor market outcome processes are generated, and the wage projections indicate that, without legalization, the legal status transitioners would have experienced little to no wage growth over time.

## Limitations/challenges

Any conclusions made from this report must recognize the limitations of the analysis. Unlike the research that followed IRCA's large-scale legalization program, this analysis examines the





transition from unauthorized to legal status in a policy context where legalization is not widely available to many unauthorized immigrants. Therefore, I recognize that because a national-level legalization program would constitute an exogenous, macroeconomic shock that I do account for in this analysis, the findings from this report can only be interpreted as a rough estimate of the impact that a large-scale legalization program would have on the wages of immigrant workers. Regardless, this analysis takes advantage of the unique capabilities of the New Immigrant Survey and does provide some indication for policymakers of the kind of labor market mobility for immigrants that could be expected if an amnesty program like IRCA were to be implemented.

## **Policy recommendations**

### Policy Recommendation: A Route to Legal Status

The United States' lack of a cohesive approach to immigration places a significant strain on state and local governments, employers and businesses, and immigrant communities and families. Following his re-election, President Obama has stated that one of the priorities of his second term will be the pursuit of comprehensive immigration reform. Given that the United States has an estimated 11.5 million unauthorized immigrants currently residing in the country, the issue of whether and how to provide a route to legal status for the unauthorized population will certainly be front and center in the coming policy debates on this topic. The findings from this report indicate that providing a route to legalization for unauthorized immigrant population is an urgent and imperative first step to any meaningful overhaul of the US immigration system.

Recent actions by the Obama administration have taken a small but not insignificant step in the right direction on the issue of legal status. During the summer of 2012, US Citizenship and Immigration Services announced a new program of deferred action for unauthorized immigrants that immigrated to the US before the age of 16. Under Deferred Action for Childhood Arrivals (DACA), individuals that meet the eligibility requirements would essentially be exempted from deportation for two years, and may be eligible for employment authorization. However, the Migration Policy Institute estimates that only 1.76 million unauthorized immigrants qualify for DACA, and the temporary nature of the program places at risk the future availability of the program. Thus, Congress and the President should take swift action to pass legislation that includes a route to legal status for the unauthorized immigrant population.

In what ways do the findings from this report, in particular, make the case that legalization is an urgent and imperative matter? Based on the results of this analysis, I propose that providing a route to legal status for unauthorized immigrants is not only a necessary and pragmatic component of immigration reform, but also an efficient, market-based mechanism of reducing economic insecurity among the unauthorized immigrant population. Passel and Cohn (2009) estimate that 20 percent of unauthorized immigrant adults live below the poverty line, compared to only 10% of USborn adults. Further, a third of the children with unauthorized immigrant parents live in poverty, which is nearly double that of children with US-born parents. All together, unauthorized immigrants and their children account for 11 percent of the US population that lives below the poverty line, which is twice their representation in the total population. Similarly, Passel and Cohn also find that, at \$36,000, the median household income of unauthorized immigrants is \$14,000 below that of the median US-born household. These economic disadvantages are associated with a litany of negative consequences, such as low rates of health insurance coverage and a lower likelihood of attending college after graduating from high school for young unauthorized immigrants.

In light of these facts, then, the legalization of unauthorized immigrants represents an efficient and effective mechanism by which the economic instability of unauthorized immigrants and their families can be addressed. In policy context where local, state, and federal budgets are stretched thin and funding for social programs is limited, the legalization of unauthorized immigrants





represents a way to combat the economic insecurity experienced by many immigrant families without expanding the role of government. The enhanced occupational mobility of previously unauthorized immigrants, as found by this report, suggests that wide-scale legalization could help to provide ladders of opportunity out of poverty for immigrant families. Although the unauthorized population is largely low-skilled, the gains experienced by the immigrants that gained legal status in this report suggests that unauthorized status does constrain the earning power of even immigrants with low levels of education.

Thus, by providing a route to legal status for unauthorized immigrants, policy makers could not only place the United States on a path towards a more effective and responsive immigration system, but also take steps toward expanding the economic opportunities available to immigrant workers. Following legalization, these previously unauthorized workers would be able to gain access to employment with higher wages and less marginal occupations, which could also enhance future opportunities of occupational mobility. While legalization is not a panacea, as these workers will still face barriers in the form of low levels of education, this research provides evidence that substantial economic gains could be made by unauthorized immigrants and their families if given the opportunity to transition from unauthorized to legal status.

## Next steps in research

The findings of this research indicate that even for this sample of mostly low-skilled immigrants, legalization does provide a mechanism of intra-generational mobility, leading to higher wages, a better position in the occupational hierarchy, and a smaller likelihood of working in marginal occupations. Due to the short time window offered by the data and access to data at only two points in time, at this point it is unclear how legalization will shape labor market outcomes for these previously unauthorized immigrants going forward. Thus, I plan to continue this line of research on immigrant legalization and occupational mobility as future waves of the New Immigrant Survey are released. Once the follow-up wave of the NIS (which was carried out from 2007-2009) is released, I will be able to take advantage of having data at three points in time. This will allow me to examine how legalization influences labor market experiences of immigrants not only directly after receiving legal permanent residence, but also how the legalization boost to earnings found here plays out over time relative to other groups of immigrant workers. For example, do the legal status transitioners continue to experience robust growth in hourly wages in the four year span following legalization, or does their wage-growth slow to a rate like that seen by the continuously legal immigrants? This is just one of many interesting research questions that I will be able to explore once the next wave of NIS data is made available.

Further, while this project focused on the consequences of legalization for individual outcomes, I also expect the effect of legalization to extend beyond just the labor market outcomes of the individual that receives LPR status. In particular, I am interested in how parental legal status shapes the experiences of immigrant children, as well. In future work I plan to expand my focus on legalization as a mechanism of intragenerational mobility to how a parent gaining legal status might influence intergenerational mobility for children in the household. This work entails matching the migration histories of the parents in the NIS to the child interview data to examine how parental legal status experiences might shape the outcomes of immigrant children in the United States. This kind of research would indicate the extent to which legalization benefits entire households, rather than just the individual that undergoes the transition from unauthorized to legal.





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