Citizenship, language, education and poverty among Mexican migrants in Chicago

Ciudadanía, idioma, educación y pobreza entre los migrantes mexicanos en Chicago

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Abstract

This paper examines the connection between immigration status, English language proficiency, and educational achievement as determinants of poverty among Mexico-born migrants in Chicago, U.S. The theoretical framework of the study uses Human Capital Theory and the analysis is based on a multistage cluster probabilistic sample (2005-2006) of Mexican migrants obtained in Cook County which includes the City of Chicago. Analyses of contingency tables and logistic regression models show that the most relevant connections occur between poverty and immigration status as well as between poverty and English language proficiency. Thus, Mexican immigrants with citizenship status, work permits, or residency permits ("green cards") and Mexican immigrants with high English language proficiency have a lower probability to be below the poverty threshold than their counterparts. The analysis of the sample's educational achievement in Mexico shows that these immigrants tend to have low levels of education and that the problems associatedwith school dropout among Mexican migrants extends below high school. Similarly, the educational achievement obtained in the U.S. is significantly low among the individuals in the sample. These results point to the plight of the large levels of undocumented workers with low English proficiency and suggest the existence of structural problems that impede significant returns to human capital investments on Mexican education in the U.S. labor market.

Introduction

Poverty has been a relevant topic among researchers, both as a dependent or as an independent variable, as well as the focus of qualitative studies. Thus, poverty has been found to be connected to inequality of outcomes among children (Lichter, 1997; Hobercraft and Kiernan, 2001), women's quality of

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life (Bianchi 1999; Snyder and McLaughlin 2004), living conditions (Desmond, 2012; Sanford, 1991; South and Crowder 1999), segregation (Quillian, 2012), social class (Duncan, 1996), metropolitan and non-metropolitan residence (Slack, 2010), the life-course (Dewilde, 2003), ethnicity (Isao and Sakamoto 2011), religion (Keister, 2008), health (McLeod and Shanahan, 1993; DeMaio, 2014), and human capital investments (DeFreitas, 1991; Ehrenberg and Smith, 1991).

A particular concern related to poverty studies has been the comparison between native-born and immigrants in the U.S. The U.S. government'sdefinition of povertyconsiders those individuals who live in households with a pre-tax income below an official threshold based on family size to be poor. Based on this definition, the Center for Immigration Studies (2001) reports that 16.8 percent of all immigrants to the U.S. lived in poverty in 1999, but only 11.2 percent of native-borndid so. The same study shows that for that year, 25.8 percent of Mexican-born immigrants lived in poverty. When thenative-bornchildren of Mexican-born immigrants are included among the poor, their percentage of poverty rises to 28.7, which accounts to the 10.2 percent of the U.S. total poor population.The significant percentages of poor Mexican immigrants in the U.S., including undocumented migrants, have led legislators and politicians to put forth "blame the victim" policies on immigration, endorsing proposals to slash the number of low-skilled migrants while favoring those with higher education level and skills (Bennett 2017). President Trump's administration proposed reforms to the U.S. immigration law would include a system in which *"Foreign applicants would receive a higher score if they 'speak English,' can financially support themselves and have skills that "can contribute to our economy*" (Bennett 2017).

These proposedreforms undercut the vision of the U.S. as "a haven for the poor and huddled masses" (Baker 2017) in favor of an immigration law similar to the Australian and Canadian ones(Bennett 2017), which underlie the relevance of the *human capital* of migrants applying for admission to those countries.

According to Human Capital Theory (Becker 1964; Cain 1976; Ehrenberg and Smith 1991), workers undertake three major kinds of investments: education and training, migration, and search for new jobs. The first improves workers' productivity, which in turn increases their returns. The other two types of investments may also raise workers' income. By using this theory, Becker (2008) argues that relevant problems in economics have been analyzed successfully, such as the differences in earnings between high school and college graduates during the past 50 years, why the fraction of high school students that go to college increases and decreases from time to time, and the increase in labor participation among women in the U.S. and other countries, among other economic problems.

Applying Human Capital Theory to the study of poverty, the income increase produced by investments in human capital decreases the probability

that workers may find themselves living in poverty. Human Capital Theory's premise that education improves peoples'opportunities and lives is the basic assumption of studies that emphasize the relevance of education, such as Willis's (1981) ethnographic study of a high school in a British working-class neighborhood, which argues that dedicated students would experience upward mobility, while underachieving ones would go back to their parents' jobs at the factory. Similarly, Putnam's (2015) study shows how relevant college and high school education are for upward mobility and breaking from the cycle of poverty that plaguesworking class youth. Likewise, Kozol's (1991) study of inequality in education across the U.S. shows how the prospects for diminishing inequality and poverty are affected by a lack of quality education for the poor. Bourdieu's (2007) analysis of cultural capital's relevance for the reproduction of the working class, includes education as one of the components of this capital form. However, the effects of different forms of human capital for workers' likelihood to live in poverty, need to be considered if these workers are migrants.

In what follows, we research the relevance of different forms of human capital on the likelihood of poverty for Mexican migrants working in Cook County, Illinois, which includes the city of Chicago. We first develop the theoretical arguments and hypothesis that frames the problem and we then introduce the data and methods to test these hypotheses.In the final two sections of the paper we discuss the findings of the data analysis and that summarizes theconclusions of the study.

Education, migration, language, and poverty among mexican migrants in the U.S.

According to the Migration Policy Institute (2014), approximately 11.6 million Mexican immigrants resided in the U.S. as of 2013, accounting for 28 percent of the 41.3 million foreign born. The same source specifies that as of 2012, 6.7 million (59 percent) of the estimated 11.3 million unauthorized immigrants were from Mexico. Thus, more than half of all Mexican-born persons and more than 20 percent of all persons of Mexican origin – which includes those who were born in the United States – lack social, political, or economic rights in the U.S. "Mexicans are now more exploitable than at any time since the 1850s" (Massey, 2007, p. 143).

The Center for Immigration Studies (2001) reports that, based on the Current Population Survey (1999), 28.7 percent of Mexican immigrants in the U.S. are below the poverty level, a threshold determined by the U.S. government based on the income for a family of four to satisfy their basic needs. A more specific view of poverty by the same report indicates that 10.8 percent of U.S. native Mexicans (including their children) in the U.S. are below the poverty threshold, 24.8 percent of documented Mexican immigrants (and

their children) in the U.S. live in poverty, and 35.4 percent of undocumented Mexican immigrants (and their children) live in poverty in the U.S. In contrast, 10.8 percent of all U.S. natives and their children, and 18.2 percent of all immigrants to the U.S. and their children, live below the poverty level, using the same poverty measure determined by the U.S. Census Bureau (2015). Furthermore, The Wilson Center (2013) and the Mexican government agency in charge of measuring poverty in Mexico, The National Council of Evaluation of Social Development Policy in Mexico (CONEVAL), reports that 45.6 percent of Mexicans live in poverty in Mexico in 2012, out of a population of 117.3 million people, taking into account those individuals whose income level is not sufficient to acquire the necessary goods and services to satisfy their needs (food and non-food) (CONEVAL 2014, p. 29).

While migration to the U.S. decreases the percentages of poverty among Mexican migrants significantly overall, with respect to those percentages of poverty in Mexico, as expected by Human Capital Theory, which hypothesizes that investments in migration increase the likelihood of finding a job that provides higher earnings and therefore decrease the likelihood of falling into poverty, these percentages also indicate a split among documented and undocumented Mexican immigrants in the U.S., the latter being more affected by poverty than the former. Human Capital Theoryhypothesizes as well that higher investments in education and language skills will increase migrants' likelihood of finding a job which pays higher wages and therefore decrease their probability of being below the poverty threshold. Consequently, Mexicans with higher educational achievements and better English language skills in the U.S. would be more likely to live above the poverty threshold than those with lower educational and language skill levels. However, research on Mexican migration to the U.S. shows that this straightforward view of Human Capital Theory becomes complicated by U.S. immigration policies.

Gentsch and Massey (2011) and Massey (2007) point out that the Immigration Reform and Control Act (IRCA) of 1986 imposed sanctions on employers of undocumented migrants which "radically restructured the market for unskilled labor in the United States, increasing discrimination on the basis of legal status, exacerbating discrimination on the basis of ethnicity, and pushing employers toward labor subcontracting as the principal hiring mechanism" (Massey, 2007, p. 145). According to the authors, such a labor subcontracting of migrant workers, in turn, produced the same in the current labor market,"there are few returns to experience, English language ability, education, or job tenure, thus explaining the falling returns to human capital and the rising importance of formal-sector employment as paths to economic mobility" (Massey, 2007, p. 145). In addition, Massey and Gelatt (2010) show that the falling returns to human capital occurred despite the steady improvement in time of the average quality of Mexican immigrant cohorts studied, both absolutely and relatively to native white workers, with respect to

observable traits such as education and work experience.

Therefore, Mexican migrants' income and their probability of poverty are affected by three different forms of human capital: educational achievement, English language skills level, and immigration status (citizenship, residency, temporary work permit or visa, and undocumented immigrant status). However, the time of legal or undocumented residency in the U.S. may allow the migrant to improve her/his situation, acquire documented status and even citizenship. Thus, the time of residency in the U.S. – legal or otherwise – has to be taken into consideration, since changes in the migrant's situation may affect the probability of getting out of poverty.

In lieu of findings critical of Human Capital Theory expectations for Mexican migrants, the following hypotheses are set to be tested regarding human capital effects on the likelihood of poverty for Mexican migrants in Cook County, Illinois:

Hypothesis 1. Controlling for other variables, the higher the individual levels of education achievement attained by Mexican migrants, the lower their probabilities of falling within poverty.

Hypothesis 2. Controlling for other variables, the higher the individual levels of English proficiency attained by Mexican migrants, the lower their probabilities of falling within poverty.

Hypothesis 3. Controlling for other variables, Mexican migrants' legal immigration status, such as citizenship, legal residency, and work permits, lead to lower probabilities of falling within poverty compared to undocumented migrants.

Hypothesis 4. Controlling for other variables, longer lengths oftime of residency in the U.S. among Mexican migrants are associated with lower probabilities of poverty.

In the following sectionthese hypotheses are testedshowing if the Human Capital Theory's hypotheses formulated above are valid, or if the transformations in the job market produced by immigration policies have made an impact on Human Capital Theory's expectations.

Data and methods

In 2000 the Chicago metropolitan area had approximately 9,157,540 inhabitants of which 1,497,832 were of Hispanic origin. In addition, 74.8 percent of the Hispanic origin population was of Mexican descent. Cook County, located at the center of the Chicago metropolitan area had about 70.2 percent of the Mexican origin population. The Mexican population constituted approximately 14.6 percent of the total population of Cook County (U.S. Census, 2000).

Based on the 2000 census data, a multi-stage cluster probabilistic sample was obtained of the Mexican origin population of Cook County in 2005 by a team of researchers from the Colegio de la Frontera Norte (COLEF) in-Tijuana, Mexico, and a group of university students from several universities in the Chicago area. In the first stage, several census blocks with 30 percent or higher of Mexican origin inhabitants were selected within Cook County. During the second stage, within each block, several households containing at least one inhabitant of Mexican origin were selected randomly. Following these criteria, 580 households were interviewed in 169 census blocks, which were part of 129 distinct census tractswith relatively permanent statistical sub-divisions of counties. Hence, the sample used in this study is representative of the Mexican origin population located in the census tracts within Cook County in the Chicago metropolitan area in 2005. In this study we refer to this sample as Colef (2005).

An individual migrant is defined as poor if the migrant's weekly income falls below or equals the weekly income poverty threshold for a family of four in 2005. This threshold is obtained by dividing the annual poverty threshold for a family of four in 2005 provided by the U.S. Census Bureau (2015) by the number of weeks in that year. Thus, a binary variable for poverty is defined as 1 if the migrant falls within the poverty threshold, and 0 otherwise. This is the dependent variable used in the statistical models described below.

Migrants' Human Capital is operationalized by variables that measure educational attainment, English skill level, and immigration status. Given that the Colef (2005) survey does not provide a ratio or continuous level measure variable for educational achievement, this variable is operationalized by several binary variables for distinct levels of educational attainment in Mexico as shown in Table 1: elementary education, secondary education, high school education, and college or graduate education. Two more dummy variables will be used in the models, also connected to the migrant's educational achievement: education in the U.S. and a dummy variable for missing data or information on educational attainment. The reference category for all education variables is the group of migrants with education in the U.S.

Immigration Status is operationalized by three dummy variables, one for citizenship, a second one for residency or temporary work permit, and a third for tourist or student visa. The reference category is formed by undocumented migrant workers. Similarly, English language skill proficiency is operationalized by two dummy variables, one for high proficiency in English, and a second one for low English proficiency. The reference category is no English language proficiency.

Time of residency in the U.S. is operationalized by three dummy variables: 10 years or less of residence in the U.S, between 11 years and 20 years in the U.S., and between 21 and 30 years in the U.S. The reference category is more than 30 years in the U.S.

Finally, three demographic variables are considered: gender, operationalized as 1 for females and 0 for males; urban, 1 if the migrant is of urban origin and 0 other; and age of the respondent. All variables are shown in Table 1.

To analyze the connection between poverty and educational level, poverty and immigration status, and poverty and language proficiency, three cross-tabulation analyses are performed in the next section. Furthermore, six Logistic Regression models (Agresti, 1990) are estimated using the logarithm of the poverty odds ratios as a dependent variable and educational level, immigration status, and language proficiency as independent (categorical) variables, plus the demographic variables defined above. These models allow to test the statistical significance of the effects of these independent variables on poverty beyond testing for independence in the cross-tabulations mentioned above. Therefore, the Logistic Regression models permit us to test the hypotheses based on Human Capital Theory and detect some of the effects of the segregated labor market for migrants.

Table 1
Definition of the variables in the analysis.

Variable	Definition of the variable
Poverty based on Weekly income: Less or equal to The weekly poverty threshold for a Family of four in the US in 2005	1, if the interviewee's weekly income is less or Equal to the weekly poverty threshold for a Family of four in the U.S. in 2005 and greater Than zero; 0, other
Age	Age of the interviewee/respondent
Female	1, if the interviewee is female; 0, if male
Urban origin	1, if the interviewee is of urban origin; 0, other
U.S. education	1, if interviewee has some U.S. education; 0, other
Mexican education: Elementary school	1, if the interviewee has some Mexican Elementary education; 0, other
Mexican education: Secondary school	1, if the interviewee has some Mexican Secondary education; 0, other
Mexican education: High school	1, if the interviewee has some Mexican high School
Mexican education: College or Graduate school	1, if the interviewee has some Mexican college or graduate education; 0, other
U.S. citizen	1, if the interviewee is a U.S. citizen; 0, other
U.S. green card or work permit holder	1, if the interviewee has a U.S. green care or A US work permit (visa); 0, other
Tourist or student visa holder	1, if the interviewee has a U.S. tourist or student Visa; 0, other

English language proficiency level: High	1, if the interviewee declares that she or he Speaks English well; 0, other
English language proficiency level: Basic	1, if the interviewee declares that she or he Speaks only basic English; 0, other
10 years or less in the U.S.	1, if the interviewee has lived 10 years or less in the U.S.; 0, other
11-20 years in the U.S.	1, if the interviewee has lived from 11 to 20 years in the U.S.; 0, other
21-30 years in the US	1, if the interviewee has lived from 21 to 30 years in the U.S.; 0, other

Findings

The results in Table 2 show that Mexican migrants in Cook County have a very low level of educational achievement acquired in the U.S. (4.1 percent), about the same percentage that those migrants educated in Mexico who did not attend school in Mexico or attended pre-school only in that country (4.5 percent). Thus, most of the educational achievement of these migrants was obtained in Mexico: 38 percent of migrants have some or all elementary education; 31.6 percent have some or all middle school education; 16. 1 percent have some or allhigh school education. However, the percentages of college and graduate school achieved in Mexico among these migrants is very low, 2.9 percent and 0.6 percent respectively.

Table 2
Educational achievement of Mexican immigrants in Chicago-Cook County (2005)

Education achievement	**Percentage**
U.S. education	4.1
Education in Mexico	
Did not attend school or pre-school only	4.5
Some (or complete) elementary education	38.0
Some (or complete) secondary education	31.6
Some (or complete) preparatory/high school education	16.1
Some (or complete) college education	2.9
Some (or complete) graduate education	0.6
No response in survey	2.2
Sample size (N)	510

Table 3 shows the results of the Chi-square test of independence between educational achievement among Mexican migrants and poverty. The percentage of Mexican migrants in the sample living in poverty is 31 percent (see the bottom of column three in the table). As can be seen on this table, the Chi-square value is not significant (p-value = 0.114); therefore, the null hypothesis of independence between educational achievement level and living within poverty (or not) is not rejected. Thus, *living within poverty is not affected by educational achievement level, including education obtained in Mexico or the U.S.*

Table 3
Educational achievement of Mexican immigrants in Chicago-Cook County and poverty (2005).

Education achievement	**Not within poverty** **Row percentage** **Column percentage**	**Within poverty** **Row percentage** **Column percentage**	**Total percentage** **Row percentage** **Column percentage**
U.S. education	81.0 4.8	19.0 2.5	100.0 4.1
Education in Mexico			
Did not attend school or pre-school only	65.2 4.3	34.8 5.1	100.0 4.5
Some (or complete) elementary education	74.7 41.2	25.3 31.0	100.0 38.0
Some (or complete) secondary education	62.7 28.7	37.3 38.0	100.0 31.6
Some (or complete) high school education	62.2 14.5	37.8 19.6	100.0 16.1
Some (or complete) college education	73.3 3.1	26.7 2.5	100.0 2.9
Some (or complete) graduate education	100.0 0.9	0.0 0.1	100.0 0.6
No response, not specified	81.8 2.6	18.2 1.3	100.0 2.2
Total (N = 510)	69.0 100.0	31.0 100.0	100.0 100.0

Pearson Chi-Square (df = 7) = 11.607; two-sided p-value = 0.114.

However, Table 4 shows that *the hypothesis of independence between living in poverty and English proficiency among Mexican immigrants is rejected* – the p-value is 0.004. Indeed, by observing the column of those living in poverty (third column), the percentages increase from 17.1 percent for those with high English proficiency, to 60.8 percent for those with low proficiency, and then it declines to 22.2 percent for those with no English proficiency.

Table 4
English proficiency and poverty of Mexican immigrants in Chicago-Cook County (2005).

English proficiency	**Not within poverty** **Row percentage** **Column percentage**	**Within poverty** **Row percentage** **Column percentage**	**Total percentage** **Row percentage** **Column percentage**
High English proficiency	79.5 29.8	20.5 17.1	100.0 25.9
Low English proficiency	67.0 55.4	33.0 60.8	100.0 57.1
No English	59.8 14.8	40.2 22.2	100.0 17.1
Total (N = 510)	69.0 100.0	31.0 100.0	100.0 100.0

Pearson Chi-Square (df = 2) = 10.87; two-sided p-value = 0.004

Similarly, Table 5 shows that *the hypothesis of independence between immigration status and living in poverty is rejected* – the p-value is 0.000. Among migrants living in poverty, 58.2 percent are undocumented; 14.6 percent have citizenship, 19.6 percent have a green card, 2.5 percent have a temporary work permit, and 3.2 percent have a student or tourist visa. Furthermore, among all undocumented migrants, 43 percent live in poverty. *Thus, undocumented status is clearly a path to poverty in the area under study.*

Table 6 shows the descriptive statistics for the variables in the forthcoming logistic regression analysis. This table summarizes the levels of English proficiency for the sample: 57.1 percent have low English proficiency compared to 25.8 percent with high proficiency; 53.4 percent have citizenship, green card, or temporary work permit and 42 percent are undocumented workers; 40.4 percent have been in the U.S. ten years or less, 33.5 percent have been between eleven and twenty years, 14.3 percent have been between twenty one and thirty years; and 11.8 percent have been more than thirty years in the U.S. Finally, 49 percent of the sample are women and 67.8 percent come from urban areas in Mexico.

Table 5
Immigration status and poverty of Mexican immigrants in Chicago (2005)

Immigration status	Not within poverty Row percentage Column percentage	Within poverty Row percentage Column percentage	Total percentage Row percentage Column percentage
Has temporary work permit or temporary visa to work	66.7 2.3	33.3 2.5	100.0 2.4
Has green card	72.8 23.6	27.2 19.6	100.0 22.4
Has U.S. citizenship	84.2 34.9	15.8 14.6	100.0 28.6
Has student or tourist visa	54.5 1.7	45.5 3.2	100.0 2.2
Undocumented migrant	57.0 34.7	43.0 58.2	100.0 42.0
Not specified	76.9 2.8	23.1 1.9	100.0 2.5
Total (N = 510)	69.0 100.0	31.0 100.0	100.0 100.0

Pearson Chi-Square (df = 5) = 32.52; two-sided p-value = 0.000

Table 6
Descriptive statistics for the variable in the analysis. Mexican immigrants in Chicago-Cook County (2005).

Variable	Mean	Standard Deviation	Range
No schooling or pre-school only	0.045	0.207	0 to 1
Elementary education	0.380	0.485	0 to 1
Secondary education	0.316	0.465	0 to 1
High school education	0.161	0.367	0 to 1
College or graduate education	0.035	0.184	0 to 1
Educational achievement not specified	0.022	0.145	0 to 1
High English proficiency	0.258	0.438	0 to 1

Low English proficiency	0.571	0.495	0 to 1
U.S. citizenship	0.286	0.452	0 to 1
Tourist or student visa	0.022	0.145	0 to 1
Green card or temporary work permit	0.247	0.432	0 to 1
Ten years or less in the U.S.	0.404	0.491	0 to 1
Between 11 and 20 years in the U.S.	0.335	0.472	0 to 1
Between 21 and 30 years in the U.S.	0.143	0.350	0 to 1
Female	0.490	0.500	0 to 1
Urban	0.678	0.467	0 to 1
Poverty	0.310	0.462	0 to 1
Age	39.30 (Median = 38)	13.01	15 to 88
Sample size N = 510			

Table 7 shows the results for the estimation of the parameters of six logistic regression models. Model 1 includes educational attainment variables only and it shows than none of their parameters are statistically significant, although several of these education dummy variables parameters are negative, which if significant, would have indicated that these educational levels tend to lower the likelihood of poverty among migrants. Thus, as Model 1 shows, even in the case of education variables being alone in the model, various degrees of educational attainment fail to impact the likelihood of poverty among migrants when compared to those migrants with some education in the U.S.

Table 7

Logistic Regression parameter estimates, Standard Errors, and Odds Ratios for weekly income below the poverty threshold for Mexican immigrants in Chicago-Cook County (2005). (Numbers have been rounded off.)

Variable	Model 1 Parameter (S.E.) [Odds Ratio]	Model 2 Parameter (S.E.) [Odds Ratio]	Model 3 Parameter (S.E.) [Odds Ratio]	Model 4 Parameter (S.E.) [Odds Ratio]	Model 5 Parameter (S.E.) [Odds Ratio]	Model 6 Parameter (S.E.) [Odds Ratio]
No Education in Mexico	-0.82 (0.71) [0.44]	-0.26 (0.73) [0.77]	-0.25 (0.75) [0.78]	-0.25 (1.00) [1.00]	-0.20 (1.00) [1.00]	-1.00 (1.00) [0.52]
Elementary Education in Mexico	-0.46 (0.50) [0.63]	-0.47 (0.47) [0.62]	-0.58 (0.50) [0.60]	-0.55 (0.50) [0.60]	-0.55 (0.50) [1.00]	-0.70 (0.50) [0.50]

Secondary Education in Mexico	0.11 (0.50) [1.14]	0.18 (0.50) [1.20]	-0.10 (0.50) [1.00]	-0.03 (0.50) [1.00]	-0.40 (0.50) [1.00]	-0.25 (0.51) [0.80]
High School Education in Mexico	0.13 (0.50) [1.14]	0.30 (0.50) [1.35]	-0.01 (0.52) [1.00]	0.01 (0.53) [1.01]	0.20 (0.53) [1.00]	-0.20 (0.54) [1.00]
College or Graduate Education in Mexico	-0.62 (0.72) [0.54]	-0.52 (0.73) [0.60]	-1.00 (0.74) [0.41]	-0.91 (0.75) [0.40]	-1.00 (1.00) [0.40]	-1.11 (1.00) [0.33]
Education Achievement Not Specified	-0.87 (1.00) [0.42]	-1.02 (1.00) [0.40]	-1.00 (1.00) [0.40]	-1.10 (0.93) [0.34]	-1.11 (1.00) [0.33]	-1.37 (1.00) [0.25]
High English Proficiency		-1.14** (0.33) [0.32]	-1.00* (0.35) [0.51]	-0.61* (0.40) [0.54]	-1.00* (0.40) [0.53]	-0.82** (0.40) [0.44]
Low English Proficiency		-0.46* (0.30) [1.00]	-0.30 (0.30) [1.00]	-0.24 (0.30) [1.00]	-0.30 (0.30) [1.00]	-0.37 (0.30) [1.00]
U.S. Citizenship			-1.14** (0.30) [0.32]	-1.23** (0.34) [0.30]	-1.25** (0.34) [0.30]	-1.11** (0.34) [0.33]
Tourist/Student Visa			0.02 (0.63) [1.02]	-0.005 (0.63) [1.00]	0.05 (1.00) [1.00]	0.20 (1.00) [1.21]
Green Card or Temporary Work Permit			-0.50* (0.25) [0.62]	-0.50* (0.30) [0.62]	-0.50* (0.30) [1.00]	-0.34 (0.30) [1.00]
Ten years or less in the U.S.				-0.22 (0.44) [1.00]	-0.23 (0.45) [1.00]	-1.00 (0.51) [0.50]
Between 11 and 20 years in the U.S.				-0.53 (0.41) [1.00]	-0.54 (0.41) [1.00]	-1.00** (0.45) [0.40]
Between 21 and 30 years in the U.S.				-0.15 (0.44) [1.00]	-0.16 (0.44) [1.00]	-0.40 (0.50) [1.00]
Female					-0.03 (0.20) [1.00]	-0.03 (0.20) [1.00]
Urban Origin					-0.33 (0.21) [1.00]	-0.35* (0.22) 0.701
Age						-0.03** (0.01) [1.00]
Constant	-0.63 (0.44) [0.53]	-0.20 (0.50) [0.84]	0.20 (0.50) [1.22]	0.45 (1.00) [1.56]	1.00 (1.00) [2.03]	2.42** (1.00) [11.30]
Chi-Square (Degrees of Freedom)	10.99* (6)	24.07** (8)	41.96** (11)	44.76** (14)	47.14** (16)	53.06** (17)

p-value* < or = 0.10; p-value** < or = 0.05

Model 2 indicates that the inclusion of the two English proficiency dummy variables shows that the parameters for both levels of English proficiency are significant. Thus, having a high English proficiency or a low English proficiency decreases the likelihood of migrants falling within poverty compared to those migrants with no English proficiency. The size of these significant English language proficiency parameters indicates as well that the effects are larger for high proficiency than for low.

The introduction of the immigration status variables in Model 3 shows that the parameters for citizenship and residence/work permit are significant and negative. Thus citizenship, residence, and a work permit reduces the probability of falling into poverty for Mexican migrants compared to undocumented ones, the reference group. It is also shown by these parameters that the effects of citizenship on poverty are stronger than of residence/work permit.

In Model 4 the time of residence variables are introduced. These variables' parameters are not statistically significant, although negative. Thus, compared to the reference category – those migrants who have resided in the U.S. longer than 30 years – time of residence in the U.S. does not affect the likelihood of poverty for Mexican migrants in the sample.

Model 5 shows the introduction and estimation of the parameters for female and urban origin. The parameters of these demographic variables are not statistically significant. Thus, according to this model, males and females have the same probability to fall into poverty and so do migrants who residedin urban or rural areas. Furthermore, it should be noted that from Model 1 through Model 5, the significance and non-significance of variables' parameters has been preserved for educational attainment, English proficiency, immigration status, and time of residency in the U.S. The introduction of *age* in Model 6 changes this situation for some parameters.

The introduction of the age variable in Model 6 produces some changes in the statistical significance of the parameters with respect to the previous five models: First, the parameter for age is significant and negative and thus, poverty decreases with the age of the migrant; second, the parameter for urban origin is now significant and negative, which means that migrants from urban areas have a lower probability of falling into poverty compared to migrants from rural areas in Mexico; and third, the parameter for residency in the U.S. between 11 and 20 years is significant and negative, therefore those migrants who have resided during this time in the U.S. have a lower likelihood of being poor than the reference group, those who have resided in the U.S. longer than 30 years. However, the introduction of age in Model 6 has produced that the parameter for the variable green card or work permit becomes not statistically significant, although still negative. This variable had a significant parameter in the three previous models.

In the following discussion section we connect these results to the hypotheses previously established in relation to the examination of the effects

of different forms on human capital on the likelihood of falling into poverty among Mexican migrants in Cook County, which includes the city of Chicago.

Analysis

Based on the results obtained, *Hypothesis 1* is rejected. The parameters for the educational attainment variables were not statistically significant across all six models estimated in Table 7. As our results indicate, educational achievement is not connected statistically to the likelihood of poverty. Nevertheless, several of the education variables still have negative signs, meaning that the trend among these variables is to reduce the probability of falling within poverty among migrants in the area under study when compared to the reference group.

In contrast to the previous hypothesis, *Hypothesis 2* is *not* rejected. When added to the education variables in Model 2, both parameters of English proficiency are significant. In Model 3 through Model 6 the high English proficiency parameter stays significant. Therefore, those migrants with high levels of English proficiency tend to have lower probabilities of poverty compared to the other groups of migrants, in particular to the baseline category, migrant workers with no English proficiency.

Similarly, *Hypothesis 3* is *not* rejected since the parameters of citizenship and green card remain significant in Models 3. 4, and 5. In Model 6 only citizenship remains a significant variable among the immigration status variables. Based on all the six models, having citizenship entails a lower probability of poverty for Mexican migrants in the area compared to other groups of migrants who do not have citizenship. Thus, the migrants affected with the highest probabilities of poverty based on immigration status are the undocumented ones.

Based on the results from Models 4, 5, and 6, the evidence to support *Hypothesis 4* – time of residence in the U.S. decreases the probability of poverty among migrants -- is *weak*, since none of the coefficients of these variables are consistently significant across the models. Only in Model 6 the parameter for residency between 11 and 20 years is significant. This may be due to this interval being the time in which most migrants achieved a documented status, either residence (green card) or citizenship.

The results in the discussion of the four hypotheses above, based on the logistic regression models, confirm the previous findings from the cross-tabulation analyses in Tables 3, 4, and 5, observed above. Therefore, the stronger results we obtain are thathigh English language proficiency and being a citizen or resident of the US decreases the probability of falling into poverty for the individuals in the sample.

As examples of the results obtained by the models estimated in Table 7, the probability of a migrant being poor, given that the migrant is highly profi-

cient in English, has U.S. citizenship, is of urban precedence, 39 years old, and has been between 11 and 20 years in the U. S. is p = 0.19 using Model 6. Using the same model, the probability of being poor, given that the migrant has no proficiency in English,is undocumented, has been less than 11 years in the U.S., is 39 years old, and of rural origin is p = 0.77. Thus, undocumented migrants with very low levels of English proficiency, undocumented, from rural regions, and recent arrivals to the U.S., as in the previous example, have over four times the probability of being poor than those migrants proficient in English, with citizenship, from urban origin, who have been more than 10 years in the U.S. and are of the same age.

In summary, the results shown on Table 7 indicate that the hypothesis arguing that individuals' educational achievement would decrease the likelihood of being poor is not confirmed by the results of the data analysis. However, the other two types of human capital considered in the analysis, possession of English language proficiency and legal immigration status do decrease the likelihood of falling below the poverty threshold, as expected by Human Capital Theory. Thus, for Mexican migrants to have access to the formal labor market and avoid falling into poverty, it is necessary to attain legal residency or citizenship and to achieve a high proficiency in the English language. Otherwise, they are subjected to work in the informal labor market, where among other disadvantages, the type of jobs available to them requires the most basic skills alongside low earnings. Furthermore, working in most jobs in the informal labor market does not entail recognition or substantial pay for educational attainment.

As analyzed above, most Mexican migrants would qualify as "school dropouts" in the U.S. labor market, having low percentages of high school education and possessing mostly elementary and secondary educational school levels obtained in Mexico, which places them below the "high school dropout" educational attainment levels for U.S. workers. Hence, given their low educational achievements, these migrants only qualify for low skill manual work positions that may entail insignificant returns to education.

Given that 42 percent of all Mexican workers in the area are undocumented, the extent of their participation in the formal labor market is significantly reduced and the risks for them to fall within poverty increased. Their lack of work permits, green cards, or citizenship status, along with low English skills, form a barrier for undocumented migrants to participate in the formal labor market, and even get some market returns to educational achievements. These obstacles may constitute a form of "structural violence" against undocumented migrants (Farmer, 2003; Kawachi, Kennedy, and Wilkinson, 1999; De Maio, 2010) given the consequences of the legal system and the structure of the labor market in the U.S.

Therefore, this study has found grounds for support of the "Mexican racialization perspective" (Massey, 2007; Massey, 2013), which has documented

the danger of creating a "Mexican underclass" in the U.S. by the immigration policies enacted in the U.S. since the 1960s.Our findings presented above fit into the viewpoint that focuses on the disadvantaged position of Mexican immigrants in the U.S. labor market (Massey, 2007). As Massey (2013) explains, Latinosin the U.S., and above all undocumented workers, have been subjected to a systematic process of "racialization," meaning a continued campaign of psychological framing and social boundary construction intended to position them as a stigmatized outsider group, "demonized as a grave threat to the American culture, society, and the economy" (Massey, 2013, p. 258), systematically excluding them from rights, privileges, and protections extended to other Americans, forcing them further within an underground economy and pushing them downward in the American social hierarchy (Massey, Durand, and Pren, 2009).

Conclusions

President Trump's administration proposed immigration reformsprioritizesand limits immigrant applicants withhigher levels of skills and education(Bennett 2017). Themessage by U.S.president's administration and other policy-makers is that the most important characteristics determining migrant workers' outcomes in the U.S. economy are human capital investments in education, English proficiency, and migration.In our study, we analyze this notion by focusing on the connection between human capital variables and the probability of falling into poverty among Mexican migrants in Cook County, Illinois, which included the City of Chicago.Our results show that the Mexican migrants' likelihood of being poor is affected mainly by two human capital variables: immigration status and English proficiency. Hence, being a legal migrant -- citizen or resident -- and having English language proficiency are the most important conditions for migrants to escape poverty. These two factors determine if the migrants are able to participate in the formal labor market; otherwise, these individuals will become part of the approximately 31 percent of poor Mexican migrants in the area studied.

Given that, according to the immigration reform being proposed by policy-makers in the U.S., it is migrants' "skills" that would determine which immigration applicants would be admitted into the U.S. (Bennett 2017), the analysis of the connection between the probability of falling into poverty and human capital variables("skills")in our studyimplies that the changes to the immigration laws proposed by President Trump (Baker 2017; Bennett 2017), targeting Mexican migrants among others, ignore important structural problems generated by the immigration system. This means that reforming immigration laws is more complex than excluding migrants with low human capital for the benefit of the U.S. economy. Our study shows that once migrant workers are excluded from the official labor market,thereby shifting to

the informal labor market due to lack of legal immigration status, the relevance of education, one of the most important human capital characteristics (skills), becomes statistically insignificant. Therefore, the functioning of the human capital variables in the economy is distorted, resulting innegative outcomes for migrants and the economy as a whole. The implications are that immigration policy in the U.S. will have to take into account the research findings that point to the plight of undocumented migrant workers in the labor market, their access to quality education, including bilingual education, and available pathways to legal residency and citizenship in the U.S.

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