

English or Español? Latino Immigrants' English Proficiency and Migration Patterns

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Abstract

The goal is to investigate whether Latino immigrant's English proficiency will influence their socioeconomic status and migration destinations. Latino immigrants are the fastest growing minority group in the US. By 2003, Latinos constituted approximately 14 percent of the US population, and are projected to reach 30 percent by 2050 (2000 Census). Through an analysis of US Census data (1990-2000) on non-citizen and naturalized Latino immigrant's population growth and trends at the county level, OLS regression and spatial techniques are used to examine two hypotheses: (1) English speaking Latino immigrants are more likely to have higher socioeconomic status, and (2) English speaking Latino immigrants are less likely to reside in counties with other Latino immigrants. Accordingly, this paper questions whether speaking English and attaining higher education enables an increase in Latino immigrants' social status. Family income, per capita and employment status were further discussed. Future implications and limitations will be addressed.

Keyword: Latino immigrants, English proficiency, spatial analysis, Migration.

Introduction

The paper examines whether speaking English "very well" will help Latino immigrants to increase their socioeconomic status. There has been a great deal of research on immigrants and it is well documented that Latino immigrants are the fastest growing minority group in the US. Latinos constituted approximately 14 percent of the US population in 2003, and they are projected to reach 30 percent by 2050 (2000 Census). Thus the reason to focus on the Latino population due to the rapid growth accounted throughout the decades. Furthermore, English proficiency has a huge influence on Mexican-American's earning outcome (Davila and Mora 2001). Another focus is to investigate whether Latinos who speak English "very well" are less likely to reside in high concentration of other Latinos. The paper will focus on the spatial techniques that will be used to analyze why space matters as well as where Latino immigrants are located. Latino immigrants who live in non-metro areas tend to speak less English (Donato et. al., 2008).

The contribution to this study is to utilize spatial techniques to examine a path to where Latinos are mostly concentrated and whether those areas also have high English proficiency. To strengthen the importance of English proficiency, several theories were used to help explain the affect of English proficiency to Latinos immigrants' socioeconomic status and their geographic migration pattern. The paper utilized data from 1990 and 2000 Census to examine both non-citizen and naturalized Latino immigrants and the overall Latino population at the county level. Other characteristic will be examined such as education, per capita, median household income, and unemployment rate. Ordinal Least Square (OLS) regression and spatial techniques such as spatial weight matrix and Local Indicator of Spatial Association (LISA) will be utilized to strengthen the two hypotheses. The goal is to utilize spatial techniques to show where Latino immigrants both non-citizen and naturalized Latinos are residing and whether the length of residency (from citizenship status) may increase their assimilation to obtain a higher English-proficiency. Finally, some limitations and further implications are addressed.

Literature review and Theoretical framework

The focus of this paper is on the Latino population because over the past few decades, Latinos have been the largest and fastest growing minority group in the U.S. and this rapid growth is anticipated to continue for the next several decades (Casas, Arce, and Frye 2004).

According to the 2000 Census (2000) the distribution of the Latino population is increasing so rapidly that non-Latino Whites would only represent about one-half of the total population by 2050. The US population will continue to grow from 282.1 million in 2000 to almost 420 million in 2050. Out of the 138 million, nearly 67 million people will be from a Latino origin. Moreover, Latinos will compose of nearly 25 percent of the total population, whereas, the Asian population will compose of 8 percent and the black population of 14.6 percent in 2050. Nonetheless, researchers have found a large and geographically contiguous region of net in-migration (Florida and Southwest), and out-migration (Great Plains) by utilizing the spatial autocorrelation analysis (Johnson, Voss, Hammer, Fuguitt and McNiven 2005). Furthermore, the convergence of technology, talent, and tolerance among immigrants were seen in different cities – San Francisco, Boston, Seattle, and Los Angeles – which has been beneficial in economic growth (Florida 2002). Location choices for immigrants during 1960s showed that those immigrants are more geographically concentrated than natives of the same age and racial/ethnicity groups can all played a huge role in location choice.

As mentioned previously that Latinos have grown rapidly in the past decades, which have resulted from different immigration reforms, and movements from Mexico and other Latin American countries, and they have also utilized many port-of-entry areas (Bean and Tienda 1987; Frey 1995; Jasso and Rosenzweig 1990). And it is important to mention the traditional port of entries in the past as well as now. Throughout the decades many entries have been utilized across the United States; such as San Francisco and New York City, which have been the most frequently, used port of entries (Frey and Farley 1996). The distribution of Latino immigrants are mainly located in the “traditional gateway states” such as California, New Mexico, Arizona, and Texas, but they are slowly moving toward more rural regions in the Southeast and the Midwest. By the end of the twentieth century, the West had become the primary immigrant destination (Westphal 2001).

When examining immigrants it is necessary to imply migration, and the paper applied the “push-pull” theory which was first utilized by Ravenstein (1889). The most frequently explanation to the push-pull theory is when someone migrates because they are pushed away from their original location, whereas others migrate because they are pulled or attracted to that place (Weeks 2005). Then again, migration can be defined in many ways, but it has typically been defined as a move that results in a permanent change in the place in which one lives. And, Lee (1966) argues that migration has no restriction on distance and it can be a short-distance move from one block to another, or a long-distance move from one country to another. Migration can have a pervasive influence on individuals, and it offers a means for individuals to adjust to their social and personal situations (Toney, Stinner, and Kan 1983). Migration is a complex process that is determined by a large number of individual and place characteristics. As mentioned above, the push-pull theory of migration can help us understand characteristics that may influence individual’s migration decisions. Furthermore, researchers have found that a pulling effect exists within similar cultural communities and attracts new immigrants, but such effect is not homogeneous for all countries (Gross and Schmitt 2003).

The other main indicator in this paper is English proficiency and how it plays an important role in determining Latino immigrants’ economic status. Dustmann and Soest (2002) stated that the important factor for individual’s social and economic integration was to be able to communicate with members of the indigenous population. Kao and Thompson (2003) found that many racial minority groups tend to come from poor families or families where parents do not speak English well or at all. It also showed that those with higher social economic status had better education making them better qualifying for jobs. Parents, who have higher socioeconomic attainments, have higher educational and occupational aspirations for the child (Mizell 2000). One stigma or assumption is the chance of completing school for immigrants are very slim, even when both children and parents perceive the importance of education (Lan and Lanthier 2003).

English proficiency plays a huge role in individual’s earning outcomes. The average earnings of Mexican-American and other Latino immigrants would have been higher if they had been proficient in English (Davila and Mora 2001). Zhou (2000) found that minorities living in disadvantaged communities have a profound impact on themselves as well as their children. Furthermore, Latinos often live in high-poverty neighborhoods, both socially and economically isolated from middle-class Americans. This results in decreased access to well-paying jobs in their future (Mather and Kent 2009). Researchers found that Latinos are underrepresented in managerial and professional occupations at least partly due to their fluency in English (Mundra, Moellmer, and Lopez-Aqueres 2003). Therefore, it is no surprise that language proficiency plays a huge role to individual’s socioeconomic outcome.

As mentioned previously, English proficiency has a huge influence on Mexican-American's earning outcome. Where wage differentials may determine the location decisions of both immigrants and natives. Borjas (2001) found that if most workers in a particular racial/ethnic group have similar skills, it would not be surprising if new immigrants, that also have those skills, will settle in that region. In addition, with the ethnic networks and sources from their origin it may link immigrants in the U.S. and help them transmit valuable resources and information about income opportunities to potential migrants. Researchers found that migrants with more social capital have higher wages once in the U.S. wages, but that this effect is lower for women than for men (Greenwell, Waldez and Da Vanzo 1997). For instance, social capital has both direct and indirect effects on wages earned by Mexican immigrants. Directly, having friends and relative with migratory experience will improve job search success which may result in higher wages. Indirectly, social capital influences how a job was obtained and whether it is in the formal or informal sector (Aguilera and Massey 2003). According to Bourdieu and Wacquant (1992:119), social capital is "the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition".

Social capital has been well established in migration literature that networks are a type of source of social capital and that potential migrants draw upon different networks when they migrate (Espinosa and Massey 1997; Massey and Espinosa 1997). Furthermore, network theory also helps migrants establish interpersonal ties such as connection through friendship and kinship ties and shared community origin (Week 2005). Networks can also be functions of reciprocity exchange, in which favors are extended to friends and relatives as part of a generalized system of exchange and they do not expect immediate repayment, but rather anticipate same help for their future kin (Massey, Alarcon, Durand, and Gonzalez 1987). Lastly, networks can be characterized by enforceable trust, where individual or group refuse to help others and may result in ostracized or punished by relatives and friends at home and abroad (Mines 1981; Reichert 1982).

Other research has found that English proficiency is negatively related to immigrants' socioeconomic status. It showed that those who have less English proficiency also have lower socioeconomic status (Mora 2000). However, English proficiency do vary across culture and individual's human capital and their immigration pattern, whether the English acquirement was prior or post to migrating to the U.S (Espenshade and Fu 1997). With the classical assimilation theory, which suggests that over time, immigrants would develop stronger ties with the native individuals of the host society (Brown 2006)? With such suggestion it can also be implied to the increase in English proficiency with the length of residency in the host society. As mentioned previously that this paper will focus on the spatial techniques that will be used to analyze Latino immigrants' location. Also according to researchers, Latino immigrants are more likely to settle in metropolitan areas (+3 million) and mainly in the Western region (Casas et al., 2004). With that statement, spatial assimilation can provide a helpful explanation for the persistence of racial/ethnic clusters in inner cities (Massey 1985).

Data and Methods

This paper uses data from both the 1990 and 2000 Census to examine non-citizen and naturalized Latino immigrants and the overall Latino population at the county level. The sample consists of 2,052 U.S counties that had at least one self-identified Latino. Ordinal Least Square (OLS) regression and spatial techniques such as spatial weight matrix and Local Indicator of Spatial Association (LISA) will be utilized to strengthen the two hypotheses. The goal to utilize spatial techniques is to show where non-citizen and naturalized Latino immigrants are located and whether Latinos who speaks English "very well" are also residing closely to other Latinos. The independent variables included in the models are the individual's English-proficiency and educational attainment (high school and bachelor's degree), per capita, median household income and unemployment rate.

The exploratory spatial data analysis (ESDA) usually implies a set of lattice maps utilizing both the local indicator of spatial association (LISA) and Moran's I statistic. Moran's I test was originally developed as a "two-dimensional analog of the test of significance of serial correlation coefficient in a univariate time series" (Anselin and Bera 1998). In order to create the maps Moran's I is needed and statistical software will plot the slope. To be more specific, the Moran's I can be interpreted as the slope of the regression line between (y) and (Wy) (Anselin 1995). In order to have the best spatial weight the statistical significance of Moran's I have to be examined through a set of different weight matrix such as the rook, queen, and k- nearest neighbor. For instance, the rook weight matrix includes neighbors and in this case counties only top-down-left-right, but as for the queen weight matrix it will be all the counties that are connected to that county.

In other words, we can use the game of chess to explain the counties that the rook and queen include. For the k-nearest neighbor, if it is 1-nearest neighbor it includes only one radius (circle) around that county. The circle expands as the k-nearest neighbors increases.

Table 1: Spatial autocorrelation of 8 different spatial weight matrices Latinos

Spatial Weight Matrix	Latino immigrants (non-citizen)	Latino immigrants (naturalized)	Latinos
Rook contiguity, Order 1	0.3541	0.3286	0.8139
Rook contiguity, Order 2	0.2842	0.2527	0.7332
Queen contiguity, Order 1	0.3547	0.3310	0.8134
Queen contiguity, Order 2	0.2794	0.2568	0.7289
1 nearest neighbor	0.3604	0.3640	0.8340
2 nearest neighbor	0.3817	0.3674	0.8321
3 nearest neighbor	0.3782	0.3621	0.8186
4 nearest neighbor	0.3675	0.3496	0.8058

Table 2: Spatial autocorrelation of 8 different spatial weight matrices for Latinos’ English proficiency

Spatial Weight Matrix	Speaking English Very-Well 5-17 years	Speaking English Very-Well 18-64 years	Speaking English Very-Well 65+ years
Rook contiguity, Order 1	0.3456	0.3836	0.1434
Rook contiguity, Order 2	0.2827	0.3057	0.1378
Queen contiguity, Order 1	0.3458	0.3816	0.1439
Queen contiguity, Order 2	0.2781	0.3021	0.1344
1 nearest neighbor	0.3670	0.4068	0.1906
2 nearest neighbor	0.3830	0.4229	0.1670
3 nearest neighbor	0.3706	0.4113	0.1590
4 nearest neighbor	0.3576	0.3976	0.1554

After testing these 2 sets of different spatial weight matrices, the 2 nearest neighbor weight matrix was utilized even though the 1-nearest neighbor had a higher Moran’s I for the Latinos. The reason for using 3-nearest neighbor rather than 4-nearest neighbor is because 3-nearest neighbor have a higher result than 4-nearest neighbor when examining all five dependent variables. We then weighted each county’s neighbors by the 3-nearest neighbor weight matrix (y-axis). The slope of the regression line in the Moran’s I scatter plot is 0.364 (non-naturalized) and 0.343 (naturalized), which indicates a positive statistical significant spatial autocorrelation of the Latinos immigrants in 2000.

Results

The result section is divided into two sections to explain the two hypotheses. First, the paper hypothesized that English speaking Latinos are more likely to have higher socioeconomic status. In table 3 it presented the results from the OLS regression model for the three dependent variables (non-citizen and naturalized Latino immigrants, and Latinos) to the independent variables. There are three dependent variables and each column provides the results for each dependent variable. The finding showed that Latino immigrants who are not a citizen have a positive relationship to not speak English “well” (.561) or “not at all” (.632) between the ages of 18 and 64 compared to speaking English “very-well”. In contrast, those who are over 65 years old showed negative association (0.118) to both not speaking English well or not at all.

The proportion of Latinos showed a positive relationship and statistically significant to speaking English “well” (0.269) compared to “very-well” for those ages between 5 and 17. In contrast, the model showed a negative relationship (-1.547) for those who do not speak English at all for those ages between 5 and 17 as well as those ages between 18 and 64. However, the result did not apply to those ages 65 and over. To sum the findings, Latino immigrants who are non-citizen tend to lack English proficiency compare to the overall Latino population, which is a possibility of having a longer residency. Therefore, we can suggest that, with the increase of length of residency, the more likely Latino immigrants will increase their English proficiency. In the OLS model, the R square was included to measures the strength of the proportion of the total variation in the dependent variables that are explained by all the independent variables. The proportion of Latino population’s R square showed 0.575.

This refers to a 57.5 percent of the variability in English proficiency, education, per capita, median household income, and unemployment rate which are being explained by its linear relationships with Latinos. The R square for both non-citizen and naturalized Latino immigrants showed 0.615. This refers to how English proficiency, education, per capita, median household income, and unemployment rate explains 61.5 percent of the variability in Latino immigrants. Furthermore, the larger the R square the stronger the relationship between the Latino population to English proficiency, education, per capita, median household income, and unemployment rate. As it is shown, 57.5 percent and 61.5 percent are perceived as a strong relationship between them.

Table 3: OLS regression model Latino population, 2000

	Latino immigrants (non-citizen)	Latinos
Prop. Spanish: Speaking English (5-17) ^a		
Well	0.068 (0.056)	0.269* (0.106)
Not well	0.020 (0.063)	-0.044 (0.121)
Not at all	0.042 (0.135)	-1.547*** (0.258)
Prop. Spanish: Speaking English (18-64)		
Well	-0.024 (0.098)	-0.155 (0.188)
Not well	0.561*** (0.064)	-0.827*** (0.123)
Not at all	0.632*** (0.077)	0.831*** (0.147)
Prop. Spanish: Speaking English (65+)		
Well	-0.053 (0.033)	-0.022 (0.063)
Not well	-0.118*** (0.032)	0.007 (0.061)
Not at all	-0.091** (0.032)	0.072 (0.060)
Education		
Prop. High school ¹	0.002 (0.055)	-1.244*** (0.106)
Prop. Bachelor ²	0.229*** (0.069)	1.151*** (0.132)
Per capita	-0.001*** (0.000)	-0.002*** (0.000)
Median household income	3.587E-5 (0.000)	0.001*** (0.000)
Unemployment rate	-0.269 (0.144)	0.962*** (0.276)
Constant	64.417*** (4.764)	103.292*** (9.117)
R ²	0.615	0.575

Note: * Statistical significant at *p≤ 0.05; **p≤ 0.01; ***p≤ 0.001

¹ Proportion of who finished high school (age 25+)

² Proportion of with bachelor's degree (age 25+)

^a Prop. Spanish: Speaking English very-well is an excluded variable (comparison variable).

To have a deeper explanation on the first hypothesis (English speaking Latinos are more likely to have higher socioeconomic status), table 4 examined Latinos who speaks English “very-well” across three age groups (5-17, 18-64, and 65+).

This OLS regression model examined the three Latino age groups across education, income, and unemployment rate which are factors that may potentially influence individual's socioeconomic status outcome. The findings showed that all age groups were positively associated to finish high school, but not for completing a bachelor's degree. Other factors such as individual income showed a negative relationship to those who speaks English very-well. However, the results for unemployment showed that those ages between 5 and 17, and 65 years and over had positive correlation to unemployment rate. These results provided a good understanding on unemployment, because the retirement age tends to be around 65 and conversely, those who are younger are less likely to be employed. Therefore, from these findings, it cannot provide enough evidence on whether English proficiency will influence or individual's socioeconomic status in the future.

Table 4: OLS regression model, Proportion of Latinos speaking English very-well, 2000

	Prop. Speaking English (5-17)	Spanish: English (18-64)	Prop. Speaking English (65+)	Spanish: Speaking English (18-65+)
Education				
Prop. High school ¹	0.569*** (0.063)		0.657*** (0.059)	0.817*** (0.106)
Prop. Bachelor ²	-0.211* (0.095)		0.160 (0.089)	-0.508*** (0.150)
Per capita	0.000 (0.000)		-0.001*** (0.000)	-0.002*** (0.000)
Unemployment rate	1.223*** (0.186)		2.060 (0.174)	0.003*** (0.309)
Constant	24.211*** (4.486)		-1.582*** (4.221)	27.700*** (7.637)
R ²	0.055		0.125	0.063

Note: * Statistical significant at $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

¹ Proportion of who finished high school (age 25+)

² Proportion of with bachelor's degree (age 25+)

The following section will examine the second hypothesis on whether Latinos who speaks English "very-well" are less likely to reside in counties with higher concentration of other Latinos. To examine this hypothesis, local indicator spatial association (LISA) was utilized to explain the findings. In figure 1 through 3, it showed the Latino immigrants across all counties by the combinations of high-high (counties with a high proportion of Latino immigrants surrounded by counties with a high proportion of Latino immigrants), low-low (counties with a low proportion of Latino immigrants surrounded by counties with a low proportion of Latino immigrants), high-low (counties with a high proportion of Latino immigrants surrounded by counties with a low proportion of Latino immigrants), and low-high (counties with a low proportion of Latino immigrants surrounded by counties with a high proportion of Latino immigrants), showing counties that are statistical significant at the 0.05 level using the Moran's I. The same combinations were also utilized for figures 4 through 6, which displayed the LISA for Latinos English proficiency (speak English very-well).

Figure 1: Proportion of Non-Citizen Latino Immigrants by Counties, 2000

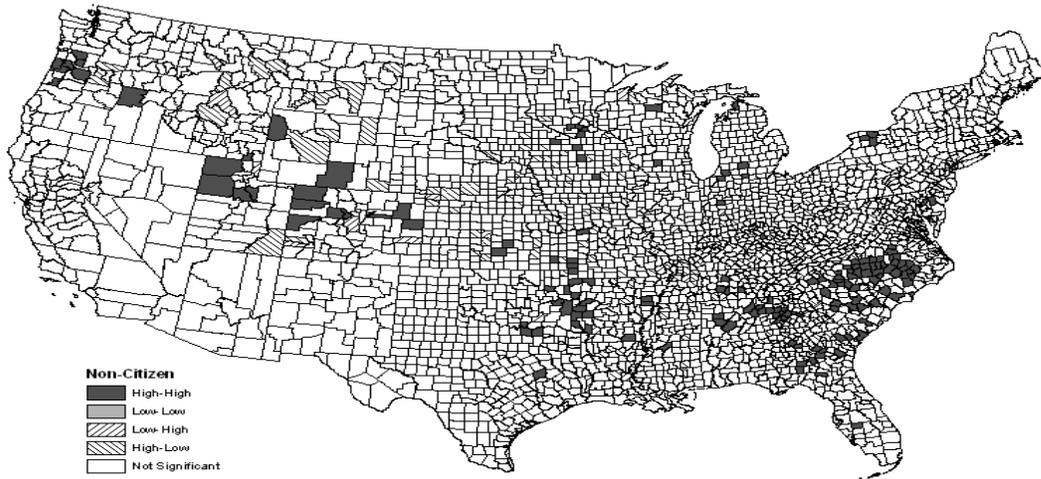


Figure 2: Proportion of Naturalized Latino Immigrants by Counties, 2000

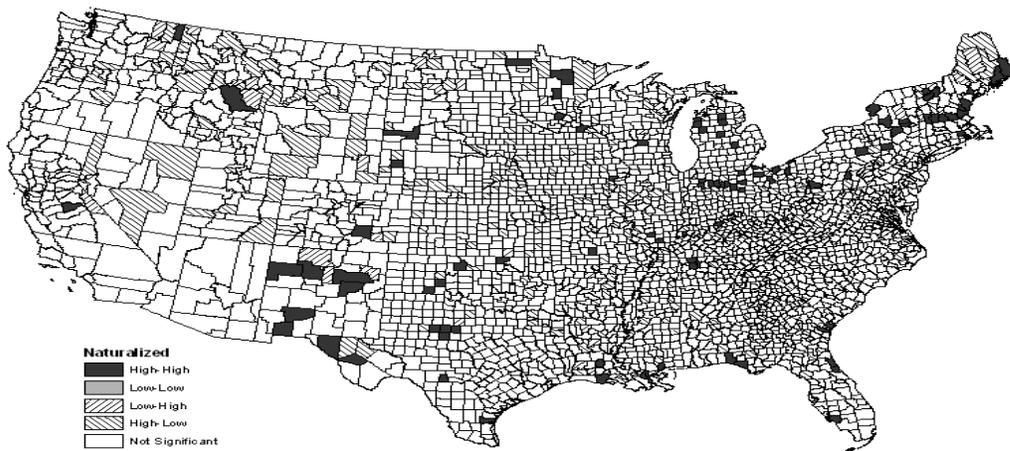
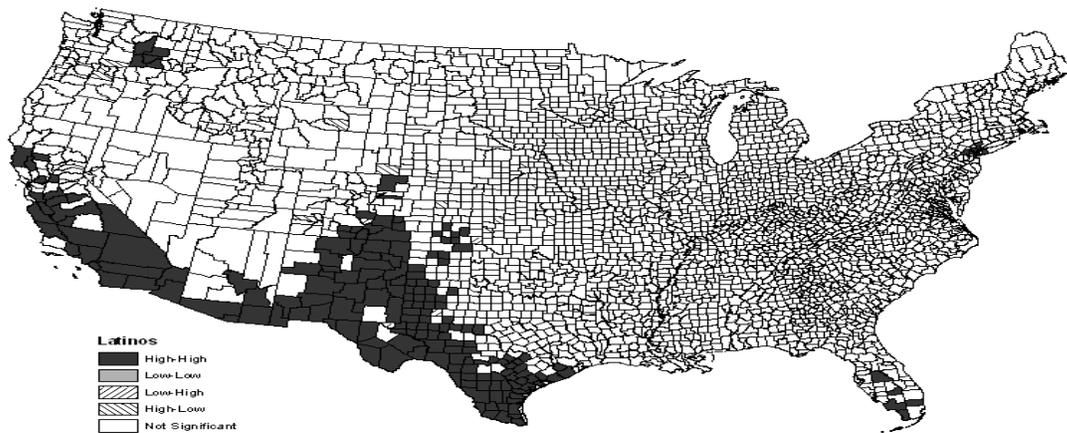


Figure 3: Proportion of Latinos by Counties, 2000



In figure 1, counties with high concentration of non-citizen Latino immigrants are shown in North Carolina, as well as other counties across the nation. It is interesting to see there were no Latino immigrants residing in California due to the assumption that many Latinos reside there.

In figure 2, counties with high concentrations of naturalized Latino immigrants shifted toward Texas, as well as the north regions. Very few Latino immigrants are concentrated in urban areas, and as the map shifts from non-citizen to naturalize and now to the overall Latino population. It showed that in figure 3, counties with high Latinos are mainly concentrated in California, New Mexico, and almost half of Texas. States such as Arizona, Florida, Washington, and other states also showed some concentration of the Latino population but not as much as the previous group. The major reason to create three separate maps for non-citizen and naturalized Latino immigrants, and overall Latino population is to examine their migration pattern as well as the possibility for assimilation to the main stream counties where Latinos are mostly concentrated.

With that in mind, the following three figures (4, 5, and 6) will show the proportion of Latinos who are between the three age groups that speaks English “very-well” across the US. Figure 4 showed Latinos ages between 5 and 17 and most were concentrated in parts of Texas and many in the North regions. There are a couple of counties with Latinos speaking English “very-well” residing in Nevada and Arizona. In figure 5, Latinos ages between 18 and 64 tend to be more concentrated in Texas and in the North regions. This can be due to the large expansion across the age structure as well as the possibility of assimilation from their length of residency. Finally in figure 6, Latinos over the age of 65 speaking English “very-well” showed fewer counties than previous age groups, and they are not in counties with higher concentration of other Latinos. To sum these figures to the second hypothesis, it does show potential outcomes for Latinos who speaks English “very-well” to be less likely to reside in counties with higher concentration of other Latinos. Conversely, from the LISA figures, Latinos who are 65 and over and speaks very-well English tend to reside away from counties with higher concentration of other Latinos. The finding may suggest future implication on the possibility for older individuals to migrate to potential retirement areas and in this case it will be counties.

Figure 4: Proportion of Latinos Speak English “very-well” age 5-17 by Counties, 2000

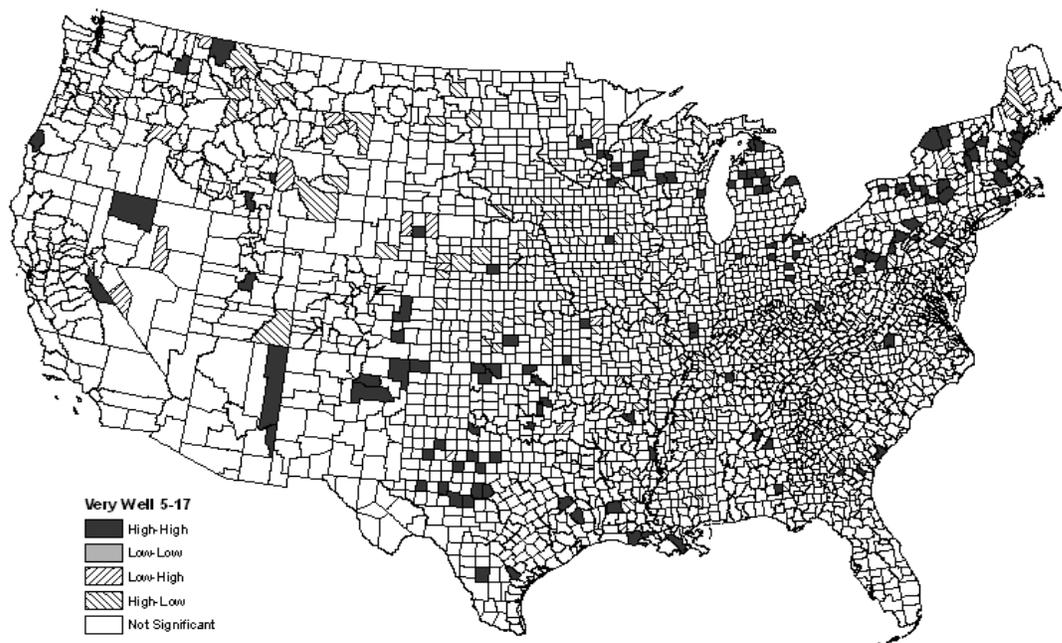


Figure 5: Proportion of Latinos Speak English “very-well” age 18-64 by Counties, 2000

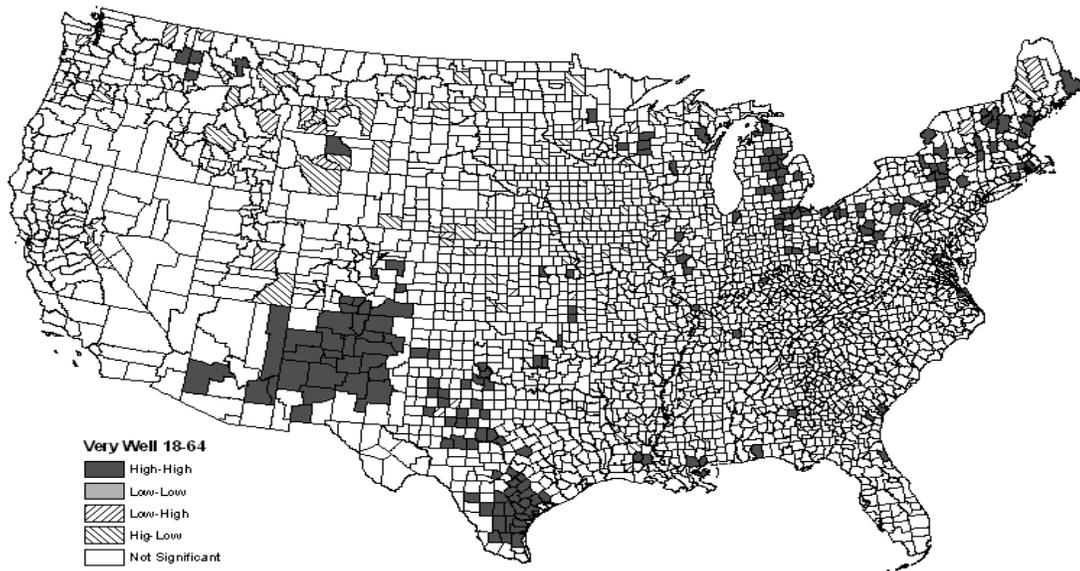
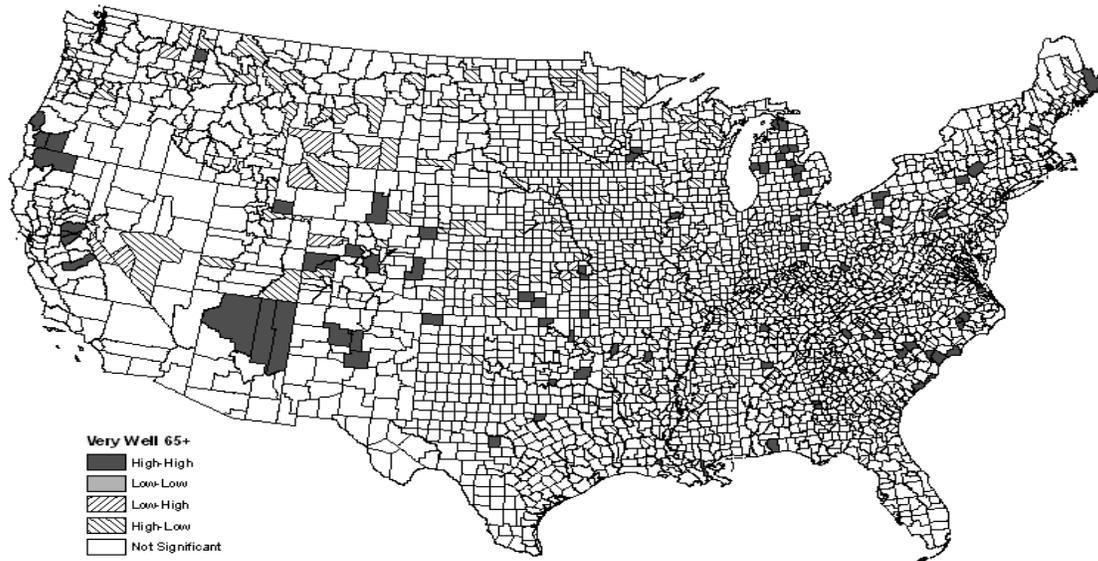


Figure 6: Proportion of Latinos Speak English “very-well” age 65 and over by Counties, 2000



Discussion

The goal for this paper is to assess whether; 1) English speaking Latino immigrants are more likely to have higher socioeconomic status, and 2) Latinos who speaks English “very-well” are less likely to reside in counties with higher concentration of other Latinos. According to the Census (2000) the Latino population is projected to grow from an estimated 36 million in 2003 to 103 million by 2050. Therefore, this is one of the main reasons that this paper is focusing on the Latino population. Another component deals with English proficiency and how important is English for other immigrant’s whose native tongue is not English to adapt to this country. As Kao and Thompson (2003) found that many racial minority groups tend to come from poor families or families where parents do not speak English well or at all. In addition, English proficiency does play a huge role in earning outcomes, and the average earning of the Latino population will increase if members of these groups had been proficient in English (Davila and Mora 2001). Therefore, researchers are emphasizing the importance of English proficiency if individuals want to increase their socioeconomic status.

The paper utilized several theoretical frameworks, such as Ravenstein (1889) “push-pull” theory, which helps us understand its concept and different interpretation of migration. Social capital is another important influence on migration—networks may increase individual’s likelihood of migrating, influence their choice in location, and increasing their chances of obtaining a job. Lastly, classical assimilation theory was utilized to suggest that over time, immigrants would develop a stronger and primary tie with the native individuals of the host country (Brown 2006). Other suggestions such as, the longer the length of residency the more likely migrants will assimilate to their surrounding norms. Conversely, if the individual or the group tends to reside in or close to communities or counties with similar origins of cultures and norms, then it may take longer to assimilate.

The paper utilized data from both the 1990 and 2000 Census and explore two hypotheses. OLS regression and two sets of LISA maps were examined. The findings for the first hypothesis (table 3), showed that Latino immigrants who are non-citizen tend to lack English proficiency compared to Latinos who have lived in the U.S. longer. The paper concluded unsurprisingly, that Latino immigrants’ English proficiency is suggested to increase with length of residency. Next, the LISA analyses showed that Latino immigrants who are non-citizen are more likely to reside in North Carolina, as well as other counties across the country. Latino immigrants who are naturalized tend to move away from North Carolina and concentrate more in the North as well as New Mexico. However, the overall Latino population is mostly concentrated in Texas and California.

Therefore, Latinos who speaks English “very-well” showed an increased likelihood of residing in counties with higher concentration of other Latinos, but those counties were very few. Conversely, Latinos who are 65 and over and speaks “very-well” English tend to reside away from counties with higher concentration of other Latinos. For future implications, other spatial techniques such as analyzing the data with spatial regression, and further explored a deeper understanding from a spatial perspective. Other suggestions include examining other immigrant groups and comparing their migration pattern as well as their English proficiency level. Additionally, natural amenity (also known as the Beale codes) may help explain where (county) people tend to reside when they retire—something that may be particularly informative since we found that Latinos who are 65 and over tend to reside away from the counties that have high concentration of other Latinos.

Limitations

There are limitations to this research especially. As with most research focused on the Latino population there is always the fear that undocumented workers are not included and may have very different migration patterns. Studying migration patterns is challenging, especially at the individual level, since the Census collects data at the household level. Another issue has to deal with age, Census categorize age only into 3 groups; 5-17, 18-64 and 65 and over. The 18-64 age groups are very large, and to properly study migration we would like to break that group down into smaller sub groups. People aged 18-30 are much more likely to migrate than older people and typically migrate for different reasons. Another limitation is the scale used to measure English proficiency. The response categories, very-well, well, not-well, and not at all, are not that informative. Also, English proficiency is self-reported, and people may tend to overestimate their abilities. Additionally, we cannot measure social capital from the Census. There are usually factors that will either encourage or force individual or a group to migrate. Alternatively, network may increase the chance of immigrating and or job opportunities for future immigrants seeking to enter the US.

Reference

- Aguilera, Michael B., and Douglas, S. Massey. 2003. “Social Capital and the Wages of Mexican Migrants: New Hypotheses and Tests.” *Social Forces* 82(2): 671-701.
- Anselin, L. and A. Bera. 1998. “Spatial dependence in linear regression models with an introduction to spatial econometrics.” Pp. 237-289 in *Handbook of applied economic statistics*, edited by A. Ullah and D. Giles. New York: Marcel Dekker.
- Bartel, Ann P. 1989. “Where Do the New U.S. Immigrants Live?” *Journal of Labor Economics* 7:371–91.
- Bean, F.D., and M. Tienda. 1987. *The Latinos Population of the United States*. New York: Russell Sage.
- Borjas, George. 2001. “Does Immigration Grease the Wheels of the Labor Market?” *Brookings Papers on Economic Activity* 1:69-133.
- Bourdieu, Pierre, and Loic Wacquant. 1992. *An Invitation to Reflexive Sociology*. Chicago, IL: University of Chicago Press.

- Brown, Susan K. 2006. "Structural Assimilation Revisited: Mexican-Origin Nativity and Cross- Ethnic Primary Ties." *Social Forces* 85(1): 75-92.
- Casas, Jesse, Carlos Arce and Christopher Frye. 2004. "Latino immigration and its impact on future travel behavior." Austin, TX. Retrieved October 18, 2008. (<http://trb.org/conferences/nhts/Casas.pdf>).
- Cooke, Thomas J., and Adrian J. Bailey. 1996. "Family Migration and the Employment of Married Women and Men." *Economic Geography* 72(1):38-48.
- Davila, Alberto, and Marie T. Mora. 2001. "Hispanic Ethnicity, English-Skill Investments, and Earnings." *Industrial Relations* 40(1):83-88.
- Dustmann, Christian, and Arthur Van Soest. 2002. "Language and the Earning of Immigrants." *Industrial and Labor Relations Review* 55(3): 473-492.
- Espenshade, Thomas J., and Haishan Fu. 1997. "An Analysis of English-Language Proficiency among US Immigrants." *American Sociological Review* 62(2): 288-305.
- Espinosa, Kristin E., and Douglas S. Massey. 1997. "Undocumented Migration and the Quality and Quality of Social Capital." *Soziale Welt* 12:141-162.
- Florida, R. 2002. *The rise of the creative class and how it's transforming work, leisure, community, and everyday life*. New York: Basic Books.
- Frey, W.H. 1995. "The New Geography of Population Shifts: Trends toward Balkanization." Pp. 271-334 in *State of the Union: American in the 1990s*, Vol. 2: *Social Trends*, edited by Reynolds Farley. New York: Russell Sage.
- Frey, William H, and Reynolds Farley. 1996. "Latino, Asian, and Black Segregation in U.S. Metropolitan Area: Are Multiethnic Metros Different?" *Demography* 33(1): 35-50.
- Gross, Dominique M., and Nicolas Schmitt. 2003. "The Role of Cultural Clustering in Attracting New Immigrants." *Journal of Regional Science* 43(2):295-318.
- Jasso, G. and M.R. Rosenzweig. 1990. *The New Chosen People: Immigrants in the United States*. New York: Russell Sage.
- Johnson, Kenneth Michael., Paul R. Voss, Roger B. Hammer, Glenn Victor Fuguitt, and Scott McNiven. 2005. "Temporal and Spatial Variation in Age-Specific Net Migration in the United States." *Demography* 42(4): 791-812.
- Kao, Grace., and Jennifer, S. Thompson. 2003. "Racial and Ethnic Stratification in Educational Achievement and Attainment." *Annual Review of Sociology* 29:417-442.
- Lan, William, and Richard Lanthier. 2003. "Changes in Students' Academic Performance and Perceptions of School and Self before Dropping Out of School." *Journal of Education for Students Placed at Risk* 8(3):309-332.
- Lee, Everett S. 1966. "A Theory of Migration." *Demography* 3(1):47-57.
- Lee, Ji-Youn, Michael B. Toney, and E. Helen Berry. 2008. "Social Status Inconsistency and Migration." *Research in Social Stratification and Mobility*. 27(1): 35-49.
- Logan, J.R. and R.D. Alba. 1993. "Locational Returns to Human Capital: Minority Access to Suburban Community Resources." *Demography* 30(2): 243-68.
- Massey, D.S. 1985. "Ethnic residential segregation: a theoretical and empirical review." *Sociology and Social Research* 69: 315-350.
- _____, Rafael Alarcon, Jorge Durand, and Humberto Gonzalez. 1987. *Return to Aztlan: The Social Process of International Migration from Western Mexico*. London, England: University of California Press.
- _____, and Kristin E. Espinosa. 1997. "What's driving Mexico-US Migration? A Theoretical, Empirical, and Policy Analysis." *American Journal of Sociology* 102(4): 939-999. Mather and Kent. 2009. "US Latino Children fare Poorly on Many Social Indicators". Retrieved on November 1, 2009 (<http://www.prb.org/Articles/2009/latinochildren.aspx>).
- Mines, Richard. 1981. *Developing a Community Tradition of Migration: A Field Study in Rural Zacatecas, Mexico, and California Settlement Areas*. Program in United States Mexican Studies, University of California at San Diego.
- Mizell, C. Andre. 2000. "Racial and Gender Variations in the Process Shaping Earnings' Potential: The Consequences of Poverty in Early Adulthood." *Journal of Sociology and Social Welfare* 27(2):113-138.

- Mora, Marie T. 2000. "English-Language Assistance Programs, English-Skill Acquisition, and the Academic Progress of High School Language Minority Students." *Policy Studies Journal* 28(4):721-738.
- Mundra, Kusum, Andrew Moellmer, and Walso Lopez-Aqueres. 2003. "Investigating Hispanic Underrepresentation in Managerial and Professional Occupations." *Hispanic Journal of Behavioral Sciences* 25(4): 513-529.
- Ravenstein, E. 1889. "The Laws of Migration." *Journal of the Royal Statistical Society* 52:241- 301.
- Reiger, Jon H. 1972. "Geographic Mobility and the Occupational Attainment of Rural Youth: A Longitudinal Evaluation." *Rural Sociology* 37(2):189-207.
- Toney, Michael B., Carol McKewen Stinner, and Stephen Kan. 1983. "Mormon and Nonmormon Migration in and out of Utah." *Review of Religious Research* 25(2): 114-126.
- U.S. Census Bureau. 2000. "Census Bureau Projects Tripling of Latinos and Asian Populations in 50 years; Non-Latinos Whites May Drop to Half of Total Population." Washington, DC. Retrieved October 26, 2008 (<http://www.census.gov/Press Release/www/releases/archives/population/001720.html>).
- Weeks, John R. 2005. *Population: and introduction to concepts and issues*. Belmont, CA: Wadsworth/Thomson Learning.
- Westphal, David. 2001. "Census Data shows Hispanic Population Moving to Midwest and Southeast." *Knight Ridder/Tribune Business News*, Retrieved October 24, 2008 (<http://www.highbeam.com/doc/1G1-72616826.html>).
- Zhou, M., J. A. Adefuin, A. Chung, and E. Roach. 2000. "How Community Matters for Immigrant Children: Structural constraints and resources in Chinatown, Korea town, and Pico-Union, Los Angeles." [Project final report submitted to the California Policy Research Center, University of California, Berkeley].