Mexican Americans in San Antonio, Texas: An analysis of their Insertion in formal self-employment

Los México-americanos en San Antonio, Texas: Análisis de su inserción en autoempleo formal

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Abstract

This paper analyzes the insertion of the Mexican population in the job market in San Antonio, Texas. In particular, it responds to the question of what determines employment in individual, formally incorporated businesses. The methodology analyzes microdata from the American Community Survey (ACS) using a logistic statistical estimation tool. The main results indicate that attributes such as command of the English language or an individual's origin could contribute to an understanding of job market insertion for the Mexican population living in the U.S. and do not necessarily constitute barriers for labor market insertion in the self-employment category in cities with traditional migration such as San Antonio, Texas.

Keywords: Employment, human geography, Mexicans in the USA.

Resumen

Este trabajo analiza la inserción de la población de origen mexicano en el mercado laboral en San Antonio, Texas; en particular, responde a la interrogante sobre los determinantes del empleo en empresas propias formalmente registradas. La metodología analiza microdatos de la encuesta Americana de comunidades (ACS, por sus siglas en inglés) mediante la herramienta estadística de estimación logística. Los principales resultados indican que atributos como el dominio del idioma inglés o el origen de la persona podrían contribuir al entendimiento de la inserción en el mercado laboral de la población de origen mexicano que vive en Estados Unidos y no necesariamente cons tituyen barreras para la inserción en el Mercado laboral bajo la categoría de autoempleo en ciudades de migración tradicional como San Antonio, Texas.

Palabras clave: empleo, geografía humana, mexicanos en Estados Unidos.

Introduction

In most cases in recent decades, studies examining labor market insertion of the Mexican population in the U.S. have emphasized the obstacles that this population group has faced, including their relatively low levels of human capital, as measured in terms of education, basic command of the English language, etc., (Chiswick, 1990; Donato and Massey 1993; Donato and Blake, 2012).

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Studies have recognized that the creation of social networks between generations or increases in abilities related to human capital, such as a better command of the English language, are expressed as positive changes in this population's participation in the job market (Grogger and Trejo, 2002, p. 79).

In light of this scenario, interest has increased in research on different forms of job market insertion, such as self-employment. For authors such as Ramírez and Hondagneu-Sotelo (2009), formal self-employment is a manifestation of business and entrepreneurial ability as a response to the barriers minorities face when joining the formal market (Ramírez and Hondagneu-Sotelo, 2009, p. 74).

Meanwhile, in the context of intergenerational assimilation, researchers such as Valdez (2006) see self-employment as not only contributing to economic mobility but also as preventing a process of negative assimilation (toward greater poverty). This perspective is especially applicable to Mexican workers with low levels of human capital (Valdez, 2006, p. 418).

Moreover, the study of formal self-employment as a trait of the migration experience has drawn academic interest yet has been poorly documented via official channels; an official census could contribute significant additional information to the study of this practice

This study aims to contribute to the analysis of the phenomenon of formal selfemployment and self-owned professional activity (henceforth jointly referred to as selfemployment) in a geographic setting that involves the traditional presence of Mexican immigrants, such as Bexar County, the location of San Antonio, Texas.

These areas, known as *traditional gateway cities* (Massey, Jacob, Rugh, and Pren, 2010), are important to analyze due to the intensity of the interaction between individuals sharing the same origins, which, in theoretical terms and following Granovetter (1973), can impact employment outcomes for specific population groups sharing the same values.

The proposed hypothesis assumes that variables such as command of the English language or the Mexican origin of individuals in traditional migration cities such as San Antonio do not necessarily amount to significant barriers to the insertion of the Mexican population in the formal job market within the self-employment category.

While many previous studies on self-employment in the Mexican population in the U.S. have been conducted, a tendency can be observed in this literature to analyze cases in cities such as Chicago (Raijman and Tienda, 1999; Raijman, 2001) or Los Angeles (Barros, 2007; Ramírez and Hondagneu-Sotelo, 2009).

These contributions demonstrate the importance of the topic, and all of them share a qualitative approach. Other notable studies that use a quantitative approach lose perspective on the specificities of spaces such as cities because they examine broad regions such as the southwest U.S., which combines the states of Arizona, California, Colorado, New Mexico and Texas together in a single study group (Valdez, 2006, p. 402), and ignore the historical context of these spaces. Researchers have recognized that there are broad differences in how the Mexican population interacts in spaces as different as cities in California and Texas (Arreola, 1987).

This paper argues that the growing availability of disaggregated census information on the Mexican population in the U.S. represents a source of potentially useful data on the topic. Thus, this paper uses a methodological strategy based on the analysis of *Public Use Microdata* (PUM) from the multiyear American Community Survey 2008-2010, (U.S. Census Bureau, *American Community Survey* [ACS], 2012). This census project provides demographic and socioeconomic information at the household and personal levels with disaggregated geographic representativeness. The study then analyzes formal self-employment using a logistic regression tool.

Regarding the selection of San Antonio as the study city, it is considered to have a more homogenous demographic structure in ethnic terms than other large traditional destination cities such as New York, Chicago, or Los Angeles¹ (U.S. Census Bureau, 2012). Thus, San Antonio is useful for studying self-employment from an intra-group perspective in a space with a unique historical and cultural context in the U.S. The city is considered by some authors to be the cultural capital of the Mexican American population in the U.S. (Arreola, 1987).

The article is divided into five sections. Section two reviews previous studies; Section three contrasts the job markets for the Mexican population at the state level and for Bexar County, where the city of San Antonio is located; Section four analyzes self-employment in the formal market using the logistic regression tool; and Section five provides a discussion of the implications of the results.

Prior studies

The theory of ethnic economic enclaves has been used as a starting point for many decades to understand the dynamics of social relationships and, in particular, the job market participation of people sharing a common migratory origin. Of particular note is the analytical stream of literature based on the pioneering study of Portes (1981), who investigates the linkages by origin of people working in different cities in the U.S. but empirically overrepresents Cuban and Chinese minorities. Nevertheless, this theoretical position alludes to interactions between minorities in a confined context, or in Portes' terms: "Enclaves consist of immigrant groups that are **concentrated in a distinct spatial location** and organize a variety of enterprises serving their own ethnic market and/or the general population" (Portes, 1981, pp. 290-291).

This theoretical foundation includes empirical studies on the Mexican population by authors such as Barros (2007), who analyzes small business creation in the city of Los Angeles and introduces the topic of marriage as a central component in the creation of social networks between the Mexican and Salvadoran-born populations. This stream of literature also includes the work of Ramírez and Hondagneu-Sotelo (2009), who study self-employment in yard work in California. A distinctive trait of that particular study is its conceptual proposal regarding types of "hybrid self-employment" that incorporate mixed degrees of formality; these occupations play an important role as a component of occupational and social mobility among the Mexican population.

Regarding the theoretical distinction proposed by Light, Sabagh, Bozorgmehr, and Der-Martirosian (1994) on the concept of the ethnic economy and ethnic enclaves, this study is framed within the theory of the ethnic economy but not particularly within the case of

¹ While the city of Los Angeles has a greater number of people of Mexican origin and of the Hispanic population in general, in proportional terms, the city of San Antonio has a higher relative concentration, with 63% Hispanic population compared with 48.4% in Los Angeles. Of this proportion of Hispanics in San Antonio, 91.3% are of Mexican origin.

ethnic enclaves. While recognizing the importance of a theoretical approach to ethnic economic enclaves, this theoretical framing may not be sufficient in the case of the Mexican population in San Antonio because this population group predominantly bears Hispanic historical and cultural linkages and is not exactly a minority. The group accounts for 91.3% of San Antonio's Hispanic population according to the most recent U.S. census data (U.S. Census Bureau, 2010), and its economic activity is diversified and extends in spatial terms throughout the city. Thus, the group's social setting is incompatible with an analysis of ethnic economic enclaves.

However, to understand the role of self-employment in specific population groups in the U.S., the theoretical approach to assimilation and social mobility provides additional tools. This approach was mainly used during the 1970s to analyze minorities of Asian origin, with the study by Light (1972) providing a classic example of this focus. According to the author, two elements stand out and have been examined in subsequent decades in empirical studies on self-employment in the Mexican population: the first refers to self-employment as an alternative due to job market barriers for recently arrived immigrants, and the second represents self-employment as a means of social mobility.

Among the barriers suggested in the framework applied to Mexicans in Chicago, Rajman (2001) states, "Most likely the main handicap faced by immigrants in the host job market is the lack of English proficiency, which affects transferability of skills from the home country to the host society, thus reducing their chances of getting suitable jobs" (Rajman, 2001, p. 395).

However, as argued in this study, this attribute may act differently in a more homogenous ethnically composed environment such as the city of San Antonio.

A second central element in the assimilation theory debate refers to the relationship between self-employment and income levels. In the empirical realm, Lofstrom (2002)² uses a quantitative approach to find that the income of the self-employed migrant population tends to converge with the perceptions of non-Hispanic white workers who earn wages and salaries and those who are self-employed (Lofstrom, 2002, p. 86).

A particular case of assimilation theory can be observed in the work of Valdez (2006), who analyzes assimilation by population segments differentiated by levels of human capital, gender, and birthplace, either as born in Mexico or of Mexican origin but born in the U.S. This study is revealing, independent of the problem of regional aggregation mentioned in the introduction, because linking income to this type of insertion in the job market highlights the different functions played by self-employment within the framework of Mexicans' social mobility in the U.S.

The third theoretical stream of literature that provides tools for this study is in entrepreneurship, which is defined according to the classic notion of Shumpteter as the creation of new opportunities from previously disconnected resources.

In a broader context, Granovetter's (2005) work on the impact of social structure in economic performance refers to social networks as the means that allow the resources and ideas from separate networks to be connected. This connection makes the entrepreneurship process possible (Granovetter, 2005, p. 46), and the self-employment model is a special case within this process.

² Lofstrom (2006) later analyzes entry into the labor market via self-employment by the Mexican American population, providing a significant precedent for entrepreneurship analysis in this population grouping.

While many studies have shown that the Mexican population can be characterized as very entrepreneurial (Fairlie and Woodruff, 2004), when the Mexican population is analyzed within the migratory context of the U.S., the observed levels of self-employment are not only considerably lower than those observed in Mexico but are also notably lower than those of other ethnic groups, such as the Asian population or those from Cuba (Robles and Cordero-Guzmán, 2007, p. 28).

This empirical result has led some authors to suggest that self-employment among Mexicans in the U.S., more than being a reflection of their entrepreneurial attitude, represents a labor alternative that serves another purpose: that of a temporary means to move to other situations such as salaried employment (Georgarakos and Tatsiramos, 2009, p. 169).

Along these lines, Toussaint-Cameou (2008) uses information at the metropolitan level to demonstrate that the Mexican population has a tendency to show high levels of selfemployment in cities with a large proportion of Mexicans, which indicates the advantage of analyses based on greater geographic disaggregations. These findings may also reinforce the hypothesis regarding the role of social networks.

Exploratory analysis

The city of San Antonio is located in Bexar County, and its population, estimated by the 2011 U.S. Census, is 1,756,153 people. It is the seventh-largest city in the U.S. and the second largest in the state of Texas (after Houston); 77.4% of its population is of Hispanic origin. Bexar County is also the center of a larger metropolitan area including eight surrounding counties that have a functional relationship with the central county regarding the city of San Antonio's job market. The Mexican population in the county is concentrated in the southern and central sections, where their population density is up to 93.9% of the total, as shown in Figure 1.

Figure 1. Mexican population Bexar, County, Texas

Source: compiled by author using data from the U.S. Census Bureau 2010. TIGER Line Shapes and ACS.

However, the areas of the city with the highest average individual income are found on the opposite side (to the north of the city), with incomes reaching \$51,912.95. It is precisely in this northern zone where the most recent migratory flows of Mexicans coming from cities such as Monterrey have settled (the area known as Sonterra is emblematic of this new migratory process). Furthermore, the average individual income in the area with a greater presence of the Mexican population (in the central and southern parts of the county) is only \$22,327.99 per year (57% less).

Figure 2. Average Personal Income Levels

Source: compiled by author using data from the U.S. Census Bureau 2010. TIGER Line Shapes and ACS.

Human capital

In theoretical terms, a close relationship between educational levels and individual income has been clearly demonstrated by the human capital trend analysis promoted by Becker (1975), Mincer (1974), and others. Becker highlights, "if education were economically important, I reasoned, money rates of return on education ought to be significant" (Becker, 1975, p. 1).

Mincer notes, "The positive relation between an individual's schooling and his subsequent earnings may be understood to reflect productivity-augmenting effects of education" (Mincer, 1974, p.1). In empirical terms and in the context of the job markets faced by migrants, several studies corroborate this relationship, not only in the case of the U.S. and Mexican migration but also in countries with intense migratory dynamics such as Australia (Mahuteau and Junankar, 2007, p. 17) and Canada (Xue, 2008, p. 23).

For the purposes of this study, it is important to determine the relationship between these variables in the entrepreneurial setting; that is, how do income levels act in an environment where individual employment occurs through the creation of a formally registered, self-owned business compared with an environment where individual employment follows a "traditional" trajectory through working for a private or public-sector business? Moreover, what is the result of this interaction within a job context such as that faced by Mexican workers in Texas' gateway cities?

A first approach to this relationship is shown in Figure 3, which shows average personal income for different educational levels for the period from 2008-2010. The data are only for Mexican workers in Bexar County.

Figure 3. Average Personal Income (USD) for Entrepreneurs vs. Non-Entrepreneurs. Mexican Population in Bexar Co.

Source: Compiled by author based on ACS multiyear microdata, 2010 sample.

The first characteristic to be highlighted is that entrepreneurs have a higher average income than "traditional" workers for each educational level,³ with an initial income gap that is more than two times higher for entrepreneurs. This income gap remains until it reaches its highest point with workers at the master's degree level. At this level, the average income of entrepreneurs is \$145,524.90, compared with \$62,206.98 for workers in traditional employment.

Second, it is interesting to note the contribution of each educational level to earned income, with the greatest contribution difference for traditional workers between high school and the professional level. In this group, a worker with a university degree earns 48.23% more than a worker who has only completed high school education.

The most noticeable contribution difference for entrepreneurs is between a bachelor's degree and a master's degree. This difference is comparable in magnitude to that for traditional workers (48%). For entrepreneurs, however, achieving higher educational levels than a master's degree does not appear to yield an advantage; on average, a

³ The only exception is the doctorate level, where the difference is marginal.

drastic decrease in income from \$145,000 to \$69,000 annually is observed. For a traditional worker, going from a master's to a doctorate is only marginally profitable (only \$6,734.21 more).

Next, the level of English language proficiency is explored based on the premise that in the migratory context, proficiency in the language of the receiving country is a human capital attribute that wields a variety of influences on the job market, including the type of job held and the range of individual income. Some authors even associate this variable with commuting times.

The pioneering study by Chiswick (1990) documents the effects of this variable on personal income level. In addition, Rumbaut (2006) uses public-use microdata from the 2000 census to identify an intergenerational assimilation process wherein English language fluency among the Mexican population in the U.S. improved noticeably from 6.3% to 34.5%⁴ from first-generation individuals (born outside the U.S.) to their second-generation (U.S.-born) offspring. This assimilation process is significant because it could potentially influence the type of job held by more rooted workers⁵ and could also help determine income conditions for subsequent generations.

For microdata analyzed from Bexar County, Texas, during the period from 2008-2010, a clear difference is observed in language fluency between first- and second-generation Mexicans (born outside of and within the U.S., respectively), with 32.9% of the first-generation population speaking English very well and 80.4% of the second generation. This result is interesting because the proportion of the population that speaks English very well is comparable to findings from the assimilation phenomenon reported by Rumbaut (2006). The 32.9% proportion that speaks English well among those born in Mexico (first generation) living in the San Antonio area is comparable to the proportion of second-generation speakers at the national level. This result could indicate the existence of an intense assimilation process in the San Antonio area. The results for the population in Bexar County are shown in Table 1, where the data are disaggregated by birthplace and degree of English language fluency for the Mexican population.

Table 1. Level of English Language Fluency in Bexar County, TX.

Source: compiled by author based on public-use icrodata. ACS U.S. Census Bureau 2008-2010.

Table 1 implicitly shows that, as noted by Duncan, Holtz, and Trejo (2006), the level of English-language fluency is not only a function of the time that an individual lives in the receiving country but is also determined by variables such as individual educational level.⁶

Moreover, the level of English language fluency is associated with other labor market specificities such as commuting times. Different studies in the migration literature have

⁴ Among the interviewed population aged five and up.

⁵ As in the case of those who live in the San Antonio area and in other "gateway destination" cities.

⁶ This finding could be a factor that explains the increased level of fluency among first-generation Mexicans in San Antonio, as shown in the empirical review, because the migratory flows arriving in San Antonio have been influenced over the past decade by a regional flow with high representation of people coming from cities such as Monterrey.

examined this relationship to demonstrate what is called the "*spatial mismatch of racial minorities*" (Preston and Mclafferti, 1999), whereby migrant groups have longer commute times *vis a vis* the native population (Cuesta, Verduras, and Carcedo, 2008).

Employment Profile

After examining the effects of education on income levels, the second question is how to determine which occupations are mainly filled by entrepreneurs and what the profitability of these occupations is in terms of degree of human capital. This study also seeks to determine whether there are significant differences from the perspectives of income and human capital requirements regarding the types of jobs generally chosen by people who opt for traditional employment.

To achieve these objectives, we next examine the employment profile of entrepreneurs in terms of the economic activity in which their businesses operate according to the North America Industrial Classification System (NAICS). Figure 4 shows the 10 primary economic activities of Mexican entrepreneurs in the San Antonio area.

Figure 4. Primary Entrepreneur Occupations. Mexican Population in Bexar Co.

Source: Compiled by author based on ACS multiyear microdata, 2008-2010 sample.

Figure 4 shows that the occupational profile of entrepreneurs is not characterized by activities involving university-level human capital,⁷ and nearly one out of two entrepreneurs carry out construction-related activities. The second most common activity is automobile services (17% of the total), including used car lots, tire repair businesses, and mechanic's workshops. This profile of business creation reveals an intensively non-professional labor market, which is an advantage for first-generation migrants or those who have non-legal status and can benefit from cultural affinity and language as a means to access this market.

To explore the role of earned income in the primary economic activities of these entrepreneurs, Figure 5 shows the incomes for the 10 main economic activities for Mexican entrepreneurs in Bexar County. The figure helps us to contrast two elements. The first element is profitability linked to human capital. As shown in the section describing the impact of human capital on income, one expects a positive relationship between educational level and earned income such that occupations requiring more training would theoretically pay a higher average income than those relying intensively on non-professional labor. Figure 5 also helps us determine whether the most common jobs engaged in by these entrepreneurs are the most profitable, or if not, whether the human capital factor involved in the particular activity is of greater importance.

⁷ With the exception of three categories: 6,211 doctors, 531 individuals involved in real estate, and 5,415 computer system designers and related services.

Figure 5. Average Income for Mexican Entrepreneurs in Bexar Co. According to primary occupations (NAICS code)

Source: Compiled by author based on ACS multiyear microdata, 2008-2010 sample.

We can see from Figure 5 that the most profitable economic activities among the 10 most common jobs for Mexican entrepreneurs are computer systems design, medical services, and real estate businesses. These activities are the activities that require the most skilled labor among the 10 main activities, and therefore, it is clear that the human capital factor is a key for understanding profitability. The three most profitable activities show higher personal incomes than the average annual income of \$43,901 for this set of common economic activities, reaching \$82,975 and \$80,430 in the cases of computer systems design and medical services, respectively.

This characterization also implies that Mexican entrepreneurs in San Antonio focus their entrepreneurial efforts on non-profitable activities related to the intensive use of non-professional labor, such as construction services, freight businesses, mechanic's shops, and restaurants.

A second point of contrast can be made regarding the occupational profiles of those individuals deciding to follow a traditional trajectory as employees. The comparison can be made by job type according to the degree of human capital required and then according to profitability. To make this comparison, the 10 primary occupations were estimated for the group of Mexican workers in Bexar County, and then the profitability of these jobs was measured by income level. Figure 6 shows the 10 main occupations held by non-entrepreneurs according to the NAICS.

Figure 6. Primary Non-Entrepreneur Occupations. Mexican population in Bexar Co. (NAICS code)

Source: Compiled by author based on ACS multiyear microdata, 2008-2010 sample.

It is evident from Figure 6 that the primary occupations for non-entrepreneurs require a greater amount of human capital than those of entrepreneurs. The list for this group includes jobs in hospitals, insurance agencies, primary, secondary, and higher education, banking, and others.

The most common employment profiles for the non-entrepreneurs are characterized by their use of skilled labor, and they therefore show an obvious contrast to the employment profiles of entrepreneurs. For entrepreneurs, evidence of human capital requirements is not found, but these requirements are very evident for non-entrepreneurs. Despite this characteristic, the average profitability is lower for non-entrepreneurs (\$35,778 versus \$43,901 for entrepreneurs).

Figure 7 shows the average income for the 10 primary occupations for the group of traditional workers. Again, the fact that these occupations have greater human capital requirements and are also associated with greater output is obvious. Jobs requiring intensive non-professional labor have lower wages below the group average: those Mexicans working as restaurant employees, on used car lots, in department stores, or as independent artists (Norteño music groups, for example) earn incomes below \$35,778.02 per year, while those working in insurance agencies, banks, hospitals, and universities earn over \$40,000 per year. Insurance agency jobs are the most profitable in this group, at \$56,489.46.

Figure 7. Average Income for Mexican Traditional Employees in Bexar Co. According to primary occupations (NAICS code)

Source: Compiled by author based on ACS multiyear microdata, 2008-2010 sample.

Family structure and income

This study also examines the structure and stability of the family setting, and marital status in particular. Authors such as Reimers (2006) note that family structure is a determining factor in the economic status of the Mexican population living in the U.S. Its influence on income level is obvious when one observes perceptions from one generation to another.

Thus, second-generation (in which the person is born in the U.S. but his or her parents were born in Mexico) and third-generation family structures (individuals and both parents born in the U.S.) earn significantly higher average incomes than the first generation (born outside of the U.S.). This finding is important because a traditional migratory destination city such as San Antonio has a higher proportion of second- and third-generation Mexican families than the national average. According to prior studies, such family structures mean more favorable job market opportunities because individuals in these groups show higher education levels and greater English fluency⁸ when compared with recently arrived individuals.

Historical census evidence shows that the Mexican population living in the U.S. has a more traditional family structure (that is, a pair consisting of a married man and woman) when compared with other population groups (white or African American) (Landale, Oropesa, and Bradatan 2006). However, data from the American Community Survey for the period from 2008-2010 indicate that the Mexican community in Texas has undergone drastic changes in these traditional patterns, and although divorce rates in counties such as Bexar are lower than the state level (10.5% vs. 11.7%), the difference is marginal.

This change in family trends is not exclusive to Mexican families and has been extensively documented in the literature over the past two decades by Popenoe (1993). However, it has significant implications for Mexican families because family instability is associated with negative job market performance in income and unemployment. In fact, according to ACS data (2012), divorced individuals' income is not only lower, but this group also

⁸ Both factors are primary determinants of job market position and perceptions.

shows higher levels of unemployment. Figure 8 presents real average personal income for 2010 according to marital status for the San Antonio area and the rest of the state.

Figure 8. Average Individual Income (USD) Real Average Individual Incomes. According to Marital Status and Place of Residence

Source: compiled by author based on ACS multiyear microdata, 2008-2010 sample.

As shown in Figure 8, personal income is lower for people with unstable family situations: separated individuals in the San Antonio area earn up to one-third lower personal income than those who are married (\$19,540 vs. \$29,725). It is also possible to verify that the Mexican population living in San Antonio earns more than those outside of this area for each type of marital status, with higher incomes for those who are married. This result suggests that marital stability has an impact on job market performance.

Inferential analysis

Methodology

The analysis is carried out using public-use microdata (PUM) from the 2012 American Community Survey (ACS). The ACS is a survey with two inter-census period versions: multiannual and annual. This study uses the multiannual three-year version because it allows a greater degree of disaggregation than the annual version. The annual version contains estimates for geographic areas larger than 65,000 inhabitants. The three-year multiannual version contains estimates for geographic areas for geographic areas with more than 20,000 inhabitants, which allows a more detailed analysis of the characteristics within a county, as required for this study.

The ACS is conducted by the U.S. Census Bureau and provides information about primary socioeconomic issues, including variables such as job type, education, and personal and family income, among others. It provides two types of records, one for homes and the other at the individual level. For the latter, the Texas state sample contains 1,174,125 responses, representing 5% of the state's population. Once the data are extrapolated, the survey allows for statistically representative estimates of populations in small areas such as counties, which are geographically represented using a link variable known as *Public Use Micro Data Areas* (PUMAS). This variable refers to areas with a population of 100,000 or more inhabitants that are combined from adjoining census tracts. This survey characteristic is useful in terms of disaggregation because it allows a researcher to use spatial analysis techniques to understand the effects of the location of the Mexican population at the sub-state level.

Logistic regression analysis

To approximate the status of individuals as entrepreneurs in this section, a logistic regression statistical technique is used to evaluate the probability that an individual is employed in formally registered self-employment. This variable describes the

entrepreneurial status of a person with a dichotomous variable that takes the value of 0 for not entrepreneurial and 1 for entrepreneurial.

The model uses three independently selected variables based on the literature on social capital in the migration context. As indicated in prior studies, these variables are useful for explaining the insertion of individuals in the labor market; the model used here looks to extend this prior analysis to the entrepreneurial setting. The independent variables are individual origin, which is a dichotomous variable that takes the value of 0 for non-Mexican and 1 for is Mexican, and degree of English fluency, which is a categorical variable that can take one of four values: 1 for very good, 2 for good, 3 for poor, and 4 for does not speak English.

The third variable is marital status, which is a categorical variable with six values: 1 for married, wife present; 2 for married, wife absent; 3 for widow; 4 for divorced; 5 for separated; and 6 for never married. Model estimation takes place in two scenarios to test the hypothesis regarding the existence of social bonds favoring the entrepreneurial tendency of the Mexican population in San Antonio, Texas.

The first scenario uses a sample of the population of Texas. The second scenario uses a sample that comprises only the San Antonio area population in Bexar County, thus isolating the impact of each independent variable on the result.

The theoretically estimated logistic model is:

 $P(entrepreneur = 1 | X_1, X_2 \dots X_k) = \frac{1}{(1 + e^{-(\alpha + \sum \beta_i X_i)})}.$ (1)

The model helps to determine the probability that an individual living in Texas (Model 2) or in San Antonio (Model 1) is self-employed in relation to the aforementioned independent variables.

The explicit model is:

 $P(entrepreneur = 1|X_1, X_2 \dots X_k) = \frac{1}{1 + e^{-(\alpha + \beta_1 \text{ origen} + \beta_2 \text{ msp} + \beta_3 \text{ eng})}.$ (2)

Thus, one expects an inverse relationship for the origin variable in the case of the state (Model 2) and a positive relationship between this variable and self-employment for the case of San Antonio (Model 1).

Regarding the marital status variable (msp), one expects a positive relationship with the married category and a lower influence as the relationship bonds decrease to divorced or separated. Finally, the variable indicating the degree of English fluency is expected to have a relatively lower influence in San Antonio than in the rest of the state.

The results of the estimates are shown in Table 2.

Table 2. Logistic Model.

Source: Compiled by author from U.S. Census Bureau data, ACS Multiyear Sample 2008-2010 (2012).

The results confirm the hypothesis regarding the significance of Mexican origin as a determining factor in the entrepreneurship phenomenon in Texas, as the origin variable is statistically significant in both Model 1 and Model 2. In the state context, individuals of Mexican origin⁹ have a lower probability of being employed in a formally registered personal business; in fact, the probability of being an entrepreneur decreases noticeably for this population group when compared with individuals of different origins, up to 57%.

However, when considering only the Mexican population living in the San Antonio area (Model 1), we see that the probability of being employed in a self-owned business is 15.7% higher than for those of Mexican origin living outside of the San Antonio area. This result supports the hypothesis regarding the importance of social bonds in the Mexican community in San Antonio.

English language fluency is a key determining factor for type of employment and for amount of income earned. State-level estimates for this variable show that the lower the English language fluency, the lower the probability of being an entrepreneur. There is an initial decrease of 16% for the population that does not speak English well when compared with those with English fluency, but the reduction is even steeper (46.5%) for those who do not speak English at all. This result indicates the importance of language fluency as a human capital tool and confirms empirical studies carried out in other contexts (Chiswick 2008).

The case of San Antonio is interesting in this respect because cultural heritage and continuous flows of populations of Mexicans have influenced communication mechanisms. In evaluating the impact of the English-language factor on entrepreneurship level in Model 1, we can observe that in San Antonio, not speaking English well is associated with an increased likelihood of starting a personal business. Figure 9 shows the estimated likelihoods for the entrepreneurship category according to English language ability for the Texas population and the San Antonio area population.

Figure 9. Estimated Probabilities Trend. Entrepreneur Category According to English Level

⁹ Has a Mexican ancestor.

Source: Estimates by author based on ACS microdata, 2008-2010 sample.

At the state level, the likelihood of being an entrepreneur is initially higher than the likelihood observed for those living in San Antonio. However, one can see that with lower English fluency, the likelihood of being an entrepreneur rapidly decreases and remains below the level of those living in San Antonio, reaching close to zero in the case of individuals who do not speak English at all.

This outcome contrasts markedly from the situation in San Antonio, where the likelihood of being an entrepreneur increases as the level of English fluency decreases. In both cases, those who do not speak English at all have practically no chance of being an entrepreneur.

The results for the marital situation variable indicate that individuals with fewer family bonds (e.g., divorced, separated, or never married) show a lower likelihood of working for themselves when compared with married individuals.¹⁰ Thus, a person who is separated and lives in the San Antonio area has a less than 68% probability of being self-employed when compared with those who stay married.

For the marital situation variable in Model 2, one can verify that being separated reduces the likelihood of being an entrepreneur by 46% (1.00 - .54), such that in both cases (San Antonio and statewide), instability in family bonds as expressed by partner relationships has a negative effect on entrepreneurship.

Conclusions

This study has examined the topic of formal self-employment and self-owned professional activities among the Mexican population in San Antonio, Texas in an effort to contribute to the study of job markets in traditional migration cities, or *gateway cities*. The hypothesis proposed here is that variables such as English fluency or an individual's Mexican origin do not necessarily imply significant barriers for the Mexican population in the self-employed category of the formal labor market in traditional migration cities such as San Antonio. The study's implicit argument is based on the idea that the Mexican population living in the U.S. is very diverse, even though it is treated in the literature as a single group bearing a stereotype of poverty and undocumented migration—except in some notable cases, such as the work of Valdez (2006).

However, as documented throughout this study, differences within the Mexican population regarding its involvement in the job market are evident when one considers factors such as assimilation taking place from one generation to the next and differences in human capital such as education and degree of English fluency.

The results of the inferential analysis using the logistic model point to three key elements. First, Mexican people in San Antonio, Texas have a greater probability than those in the rest of the state of being employed in a formally registered, self-owned business, which supports the hypothesis regarding the existence of social bonds particular to a *gateway city*.

¹⁰ The trend does not show a significant difference between the state level and the Bexar County level (San Antonio).

Second, the results show that English language fluency is a key factor for determining job type as well as income earned. For this variable, model estimates at the state level show that to the extent that English language fluency is lower, the probability of being self-employed decreases. This decrease is approximately 46.5% for those who do not speak English at all. This result indicates the importance of language fluency as a human capital tool and supports empirical studies conducted in other contexts, such as that by Chiswick (2006).

However, in the case of San Antonio, the results regarding the impact of the English language variable on entrepreneurship status are particularly interesting. These results show that not speaking English well is associated with an increased likelihood of having a self-owned business. This finding appears to show that cultural heritage and continuous flows of populations of Mexicans have influenced these mechanisms, creating social bonds that limit the need for English language fluency.

Third, the results regarding the marital status variable indicate that individuals with fewer family bonds (e.g., divorced, separated, or never married) show a lower likelihood of self-employment when compared with married individuals. This result suggests that instability in family bonds expressed by a partner relationship negatively affects entrepreneurship, and this negative impact is more clearly pronounced for individuals residing in San Antonio.

The results from this article point to the need to understand aspects of the Mexican American population beyond the stereotypes and to generate new questions about the role of formal self-employment among Mexicans in other cities with a traditional Mexican presence, such as the border cities of California, New Mexico, and Arizona.

References

- Arreola, D. (1987). The Mexican American Cultural Capital. *Geographical Review*, 77(1), 17-34.
- Barros, M. (2007). El matrimonio y las pequeñas empresas comerciales. El caso de los salvadoreños y mexicanos en Los Angeles. *Revista Mexicana de Sociología*, 69(1), pp. 109-138.
- Becker, G. S. (1975). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education* (2^{da} ed.). Cambridge: NBER.
- Chiswick, B. R. (June, 2008). *The Economics of Language: An Introduction and Overview*. (IZA Debate Document N. 3568), The Institute for the Study of Labor, Bonn.
- Chiswick, B. R. (1990). Speaking, reading and earnings among low-skilled immigrants. *Journal of labor economics, 9*(2), 149-70.
- Cuesta, M., Verduras, C. and Carcedo, J. (2008). Commuting times: Is there any penalty for immigrants? *Urban Studies Journal Limited*, *47*(8), 1663-1686.
- Donato, K. M. and Blake, S. (2012). Shifts in the employment outcomes among Mexican migrants to the United States, 1976–2009. *Research in Social Stratification and Mobility 30*(1), 63–77.

- Donato, K. M. and Massey, D.S. (1993). Effect of the Immigration Reform and Control Act on the wages of Mexican migrants. *Social Science Quarterly*, *74*(3), 523-41.
- Duncan, B., Hotz, V. J. and Trejo, S. (2006). Hispanics in the U.S. Labor Market. In M. Tienda and M. Faith (Eds.), *Hispanics and the Future of America* (pp. 228-290). Washington, DC: National Academies Press.
- Fairlie, R. W. and Woodruff, C. (2004). Mexican Entrepreneurship: A Comparison of Self-Employment in Mexico and the United States. In G. J. Borjas, (Ed.), *Mexican Immigration to the United States* (pp. 123-158). University of Chicago Press.
- Georgarakos, D. and Tatsiramos, K. (2009). Entrepreneurship and survival dynamics of immigrants to the U.S. and their descendants. *Labour economics*, *16*(2), 161–170.
- Granovetter, M. (1973). The strength of weak ties, *American journal of sociology*, 78(6), 1360-1380.
- Granovetter, M. (2005). The Impact of Social Structure on Economic Outcomes. *The Journal of Economic Perspectives*, *19*(1), 33-50.
- Grogger, J. and Trejo, S. (2002). *Falling Behind or Moving Up? The Intergenerational Progress of Mexican Americans.* Sacramento: Public Policy Institute of California.
- Landale, N., Oropesa, S. and Bradatan, C. (2006). Hispanic Families in the United States: Family Structure and Process in an Era of Family Change. In M. Tienda and M. Faith, (Eds.), *Hispanics and the Future of America* (100-137). Washington, DC: National Academies Press.
- Light, I., Sabagh, G., Bozorgmehr, M. and Der-Martirosian, C. (1994). Beyond the Ethnic Enclave Economy. *Social Problems*, *41*(1), 65-80.
- Light, I. H. (1972). *Ethnic Enterprise in America: Business and Welfare among Chinese, Japanese and Blacks*. Berkeley: University of California Press.
- Lofstrom, M. (2002). Labor Market Assimilation and the Self-Employment Decision of Immigrant Entrepreneurs. *Journal of Population Economics*, *15*(1), 83-114.
- Mahuteau, S. and Junankar, P. (2007). *Do Migrants succeed in the Australian Labour Market? Further Evidence on Job Quality. (MPRA Paper No. 8703).*
- Mincer, J. A. (1974). Introduction to Schooling, Experience, and Earnings. In J. A. Mincer (Comp.), *Schooling, Experience, and Earnings* (pp. 1-4). New York: NBER Columbia University Press.
- Massey, D. S., Rugh, J. S. and Pren, K. A. (2010). The Geography of Undocumented Mexican Migration. California: University of California Press.
- Popenoe, D. (1993). American Family Decline, 1960-1990: A Review and Appraisal. *Journal of Marriage and the Family*, 55(3), 527-42.

- Portes, A. (1981). Modes of structural incorporation and present theories of labor immigration. In M. Kritz, C. B. Keeley, and S. Tomasi, (Eds.), *Global Trends in Migration* (pp. 279-297). New York: Center for Migration Studies.
- Preston, V. and Mclafferty, S. (1999). Spatial mismatch research in the 1990s: Progress and potential. *Papers in Regional Science*, *78*(4), 387–402.
- Public Use Microdata Sample (PUMS). (2011). *Microdatos de uso público estado de Texas. ACS*. Retrieved from http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml? pid=ACS_pums_csv_2010&prodType=document
- Raijman, R. (2001) Determinants of entrepreneurial intentions: Mexican immigrants in Chicago. *Journal of Socio-Economics*, *30*(5), 393–411.
- Raijman, R., and Tienda, M. (1999). Immigrants' socio-economic progress post-1965: forging mobility or survival? In C. Hirschman, P. Kasinitz, and J. DeWind (Eds.), *The Handbook of International Migration* (pp. 239-256). New York: Russell Sage Foundation.
- Ramírez, H. and Hondagneu-Sotelo, P. (2009). Mexican Immigrant Gardeners: Entrepreneurs or Exploited Workers? *Social Problems*, *56*(1), 70-88.
- Reimers, C. (2006). Economic Well-Being. In M. Tienda and M. Faith (Eds.), *Hispanics and the Future of America* (pp. 291-361). Washington, DC: National Academies Press.
- Robles, B. J. and Cordero-Guzmán, H. (2007). Latino Self-Employment and Entrepreneurship in the United States: An Overview of the Literature and Data Sources. In Annals of the American Academy of Political and Social Science (Vol. 613, pp. 18-31). Advancing Research on Minority Entrepreneurship.
- Rumbaut, R. (2006). The Making of a People. In M. Tienda and M. Faith, (Eds.), *Hispanics* and the Future of America (pp. 16-65). Washington, DC: National Academies Press.
- Toussaint-Comeau, M. (2008). Do ethnic enclaves and networks promote immigrant selfemployment? *Economic perspectives*, *32*(4), 30-50.
- U. S. Census Bureau. (2010). Drawn from: http://www.census.gov/2010census/popmap/ipmtext.php?fl=48.
- U. S. Census Bureau. (February, 2012). Retrieved from http://quickfacts.census.gov/qfd/states/06/06037.html
- U. S. Census Bureau American Community Survey (ACS). (February, 2012). Retrieved from http://www.census.gov/acs/www/Downloads/survey_methodology/acs_design_ methodology_ch06.pdf
- Valdez, Z. (2006). Segmented Assimilation among Mexicans in the Southwest. *The Sociological Quarterly*, *47*(3), 397-424.

Xue, L. (2008). *Social Capital and Employment Entry of Recent Immigrants to Canada*. (Research and evaluation paper). Ottawa: Citizen and Immigration Canada.