

Mexican Migrant Entrepreneurial Readiness in Rural Areas of the United States

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Abstract

A significant literature on minority entrepreneurship exists, but comparable literature on Latin American migrants and their role in local community enterprise development is very sparse. This paper is an extension of earlier work focusing on characteristics of recent Mexican migrants to rural and urban areas. Measures of entrepreneurial readiness are examined along with measures of human, social and migration capital. Migrants with previous experience in owning a business provide rural communities with an unrealized pool of talent and experience. This research demonstrates that business owners who migrate are likely to be married, have non-agricultural work experience and other household assets in the form of land and/or properties, and are more likely to be legally documented arrivals. Additionally, these migrants express additional risk-taking behavior, because they are more likely—along with their siblings—to be family “pioneers” in migrating, but still attached to migration networks through their community or other close, non-parental relatives. These characteristics illustrate entrepreneurial capacity within these migrant communities in rural areas.

Keywords: Entrepreneurship, rural communities, migration, general estimating equations

1.0 Introduction

The purpose of this research is to examine the entrepreneurial capacity of Mexican migrants to rural areas of the United States. The impetus for this examination is related to the long term and ongoing circumstance of many rural areas in developed countries. Many rural areas are facing a complex nexus of local challenges that include a strained local economy and an inflow of immigrants who differ from the native population in terms of social, cultural, and demographic profiles (Farmer & Moon, 2009, 2011). The challenge to local, regional and national leaders becomes one of simultaneously addressing the instabilities generated by economic as well as social change. The research presented here empirically examines the international migration flow from Mexico into rural areas of the United States and demonstrates the existence of a pool of human and social capital in recently arrived migrants. The particular focus of this research is an examination of the experience, skills and abilities of these migrants as they pertain to entrepreneurship. This interest in entrepreneurship is drawn

from results in other research on the globally important role international migration plays in the vitality of the receiving rural communities beyond supplying needed labor or aiding in retention of services (Kalantaridis & Bika, 2006; Nyiri, 2003). The interest in entrepreneurship is thus driven by the need to examine potential developmental pathways for rural areas.

Immigration from Mexico and Meso-America is altering the social and demographic profile of many rural areas of the United States. Unlike earlier times, the current migration pattern has extended beyond the traditional urban “gateway destinations” or “immigration portals” to interior urban areas, small towns and rural areas (Alba & Denton, 2004; Durand, Massey, & Charvet, 2000; Farmer Moon, & Miller, 2008; Farmer et al., 2011; Kandel & Cromartie, 2004; Lichter & Johnson, 2006; Singer, 2004). This immigration to rural areas is not unique to the U.S. case as many countries in Europe are experiencing similar inflows (Graeme & Morén-Alegret, 2008; United Nations, 2009). The context of the increase in migrants to rural and nonmetropolitan areas of the United States is one of economic uncertainty. Rural areas of the United States are faced with consolidation of agriculture, declining light manufacturing, and increased “cost of space” (Kraenzel, 1980) as a result of rising fuel costs. Thus many rural communities in the U.S., faced with changing socio-demographic structures driven by changes in migration patterns as well as decreasing fertility and aging in place of native populations, also confront challenges from national and global economic restructuring. The challenge of social incorporation interacts with the need for job creation, economic diversification, and access to larger markets.

The paper is organized as follows. A discussion of entrepreneurship is followed by a description of migration and demographic changes in rural areas. These two sections provide the context within which the research is situated. A description of the data comes next and is followed by the outline of the analytical model. Discussion of the results and closing remarks conclude the article.

1.1 Rural and Latino Entrepreneurship

Rural entrepreneurship has been viewed as a potential development tool in countries around the world as well as in the United States (Dabson et al., 2003; Kalantaridis et al., 2006; Kauffman, 2003; Mohapatra, Rozele, & Goodhue, 2007; Terjesen, 2007). In the United States, experience has shown that “smoke-stack chasing” is sometimes successful as a strategy to bring higher paying jobs into a rural community but often fails to bring the anticipated jobs to fruition and frequently is disappointing in overall returns for the community’s investment (Dabson et al., 2003). Creation of jobs through stimulating new business formation within the local community along with retention and expansion of existing enterprises is an alternative strategy. Studies of the effectiveness of encouraging entrepreneurship in rural areas, as opposed to urban areas, are sparse and the limited existing research demonstrates differences do exist (Dabson et al., 2003; Renski, 2009). Some studies have found small businesses to be effective engines of job creation in rural regions (Gerwitt, 1996). According to the U.S. Small Business Administration, in 2007, 1.1 million new net jobs were created, 74% of them in small firms with fewer than 500 employees and 22% of them in firms with fewer than 20 employees (U.S. Small Business Administration, 2008), confirming small businesses as loci for creating jobs.

Encouragement of entrepreneurial activities amongst minority populations in communities has long been a concern of policymakers (Fairlie & Woodruff, 2006;

Skuras et al., 2005). Entrepreneurship is often viewed as an alternative pathway out of poverty (see for example, Kosanovich et al., 2001; Surender & Van Niekerk, 2008; Todd, 2007; Varis, 2008) as well as a channel for augmenting social capital within a community (Flora et al., 1997; Kalantaridis et al., 2006; Ma, 2002; Sanders & Nee, 1996; Sharp et al., 2002). Small business creation and development are also seen as positive regional economic development strategies, particularly for rural areas (Johnson & Rasker, 1995; Kauffman, 2003; W. K. Kellogg Foundation, 2001). A recent study measuring regional entrepreneurial potential of nonmetropolitan counties (Low, Henderson, & Weiler, 2007) suggests that a high ratio of foreign-born residents provides a region with more entrepreneurial depth. Recent data analyzing high-skilled immigrants and business creation have demonstrated the significant contributions of these immigrants to the U.S. economy (Kaushal & Fix, 2006; Wadhwa et al., 2008). The majority of these high-skilled immigrants arrive from Asia or Europe, but of the college-educated immigrants in the labor force in the U.S. in 2007, nearly one-quarter of them originated in Latin America (Batalova, Fix, & Creticos, 2008).

According to Robles and Cordero-Guzman (2007), many of the studies on Latino self-employment suggest barriers in traditional labor markets and human capital deficiencies are the driving forces behind the growth in Latino entrepreneurship, especially among immigrant Latinos. Specifically, lack of English proficiency and depreciation of educational attainment are suggested as issues that push Latino migrants into self-employment (Zhou, 2004). Importantly, however, Raijman and Tienda (2000) demonstrated that Latino migrant entrepreneurship is often viewed as a means to intergenerational mobility and not simply a mechanism for surmounting discrimination. These individual attributes, however, are conditioned by the societal and group-level circumstances in which immigrants find themselves (Zhou, 2004).

Bates, Jackson and Johnson (2007) suggest that low human capital interacting with lack of financial capital and access to markets, the same barriers faced by most minorities, are likewise substantive barriers for Latinos interested in business creation. However, since most of the existing research on minority immigrants focuses on African Americans and Asians, the extent to which Latino immigrants are facing these same challenges is unknown. Lofstrom and Wang (2007) propose that, absent these barriers, Mexican men are more likely than non-minority Whites to go into business for themselves. Raijman and Tienda (2000) demonstrated the importance of the informal economy as an entry pathway for Latino migrant entrepreneurs, in contrast with other ethnic groups in their study. These studies, however, are largely focused on urban areas. The Rochín, Saenz, Hampton, & Calo study (1998) documents the dearth of research into self-employment economic opportunities in rural communities with Latino populations. While research on rural entrepreneurship is weak, the broad shape of the demographic changes underway in rural areas is better understood.

1.2 Description of Current State of Demographic Changes

Rural communities face challenges created by rapidly changing demographic structures as well as the global economy. During the 1990s, rural America gained population overall, although one in four nonmetropolitan counties actually saw a population loss in that time period (McGranahan & Beale, 2002). This trend—overall growth in non-metropolitan counties masking regions of population loss—has continued since 2000 (Kusmin, 2008). A closer examination of the data for the

U.S. reveals the causes of population gains differed geographically. Location near a metropolitan area encouraged population growth as people moved out to less populated and urbanized areas, commuting back into the urbanized areas for employment, or moved in from more remote locations, closer to greater employment opportunities in the metropolitan region (Cromartie, 2001; McGranahan et al., 2002). Natural amenities (lakes, water bodies, mountains, forested landscapes, varying topography, recreational opportunities) draw people; when coupled with a reasonably nearby metropolitan area, these nonmetropolitan counties have become some of the fastest growing areas in the U.S. (McGranahan, 1999). Yet another trend during this time period was the surprisingly rapid influx of Latinos into nontraditional migration areas, including many nonmetropolitan areas.

The almost unprecedented rapid growth of Latino populations into the United States through the 1990s has been well-described (for examples, see Cromartie, 2001; Farmer et al., 2008, 2009, 2011; Gibbs, Kusmin, & Cromartie, 2005; Gilbert, 2000; Kandel et al., 2004; Kochhar, Suro, & Tafoya, 2005; Suro & Passel, 2003). Between 1990 and 2000, the national rate of increase in Latino populations was 58% (Kochhar et al., 2005), accounting for about 40% of the overall growth in the country. As noted previously, one of the most striking aspects of the tremendous growth in the Latino population in the U.S. recently is development of new migration destinations, particularly in the Midwest and the South and in nonmetropolitan areas (Cromartie, 2001; Economic Research Service, 2005; Kochhar et al., 2005).

Although the trend has recently slowed (Kusmin, 2008; Farmer, Moon, & Miller, 2008), migration flows into these new destinations in rural America have continued to drive change. Although Latinos made up only 5.5% of the nonmetropolitan population in 2000, changes in the Latino population represented over 25% of the total population growth in nonmetropolitan counties between 1990 and 2000 (Kandel et al., 2004). Recent estimates through 2007 show in-migration rates still increasing but the increases are slowing slightly. Latino populations in non-metro counties have grown at a rate of 3% since 2000 compared to less than 1% growth rate for non-Latino whites. In approximately 150 nonmetropolitan counties Latino population growth offset non-Latino population losses between 2000 and 2007 (Kusmin, 2008). It is clear that the rural populations in these new destination areas are experiencing enormous change not only in ethnic composition but in age structure as well.

During the 1970s, 1980s, and into the 1990s most of the growth in the Latino population group was driven by international migration. However, since 2000, births have become a larger component of Latino population growth than in-migration as those young adults who migrated in earlier years begin to establish families (Suro & Passel, 2003). According to the Pew Hispanic Center, the number of Latino children in school doubled between 1990 and 2006 and the vast majority of these children (84%) were born in the United States (Fry & Gonzales, 2008). Foreign-born students are more likely than native-born ones to live in the “new” Latino destinations. These trends have serious implications for rural communities that may already be struggling to fund public services such as schools, hospitals, and fire and police protection (Farmer et al., 2008, 2011).

In addition to changes in the composition of the school-aged children in these rural areas, a significant number of these newly arrived families are economically disadvantaged. Poverty rates in rural areas generally exceed those in urban areas in the United States and poverty rates are higher for minority groups regardless of residence. Recent figures estimate that one in five Latinos is in poverty and that

number climbs to 28% for school-aged Latino children compared to 35% for African-American children and 10% for non-Latino white children (Housing and Household Economic Statistics Division, 2009). Unemployment rates for working age Latinos follow a similar pattern, with recent figures estimated at 10.9% for Latinos compared to 13.4 % for African Americans and 7.3% for non-Latino whites (Bureau of Labor Statistics, 2009). Worsening economic conditions nationally as well as globally are expected to cause additional hardship for those individuals and communities already under stress.

The reality of many struggling rural communities is daunting. Faced with rapid changes in their population dynamics combined with a worsening economy, rural community leaders need innovative approaches to rural development. The research presented here suggests that the recent arrivals in many of these rural communities bring human and social capital with them that may contribute to just such innovation. This research is part of an on-going federally funded project to determine inducements and impediments to small business creation by Latino immigrants in rural communities and then, based on those findings, will develop programs to encourage and sustain immigrant-owned small enterprises.

2.0 Data and Methods

The data¹ analyzed here is taken from the Mexican Migration Project (MMP), a collaborative research project based at Princeton University and the University of Guadalajara. Household surveys started in 1982 and have continued to the present time. More than 100 communities across Mexico (in all but nine states) were purposely sampled. The MMP data compared to other survey data indicate, it “can be used as a basic source of information on the processes and characteristics of Mexican migration to the United States” (Massey & Zenteno, 2000, p. 790).

Between 150 and 200 households in each community were surveyed and data collected from household heads and members. Household members who had made a trip² to the United States were asked for additional information. Surveys were conducted on migrants residing in the U.S. based on information from the Mexican communities’ households.³ Individual characteristics of household members, along with migration history of heads of households, household and community characteristics are included in the data.

For the purposes of this analysis, the data was constrained to heads of households as time-varying data is available only for them. Individual characteristics of the heads of households are then linked to annual migration history as well as household and community attributes. The resulting matrix is an event history table in which each record is a person-year containing individual attributes that change

¹ The datasets, codebooks, survey instruments and full description of the project may be found at <http://mmp.opr.princeton.edu>.

² A trip is defined by purpose, not length, in the MMP data. Therefore, a “trip” excludes visits for reasons such as shopping, social visits, vacations, or commuting (in the case of border residents).

³ Samples are weighted by the inverse of the sampling fraction used at each Mexican and U.S. site. In the Mexican communities, the number of households in the sample is divided by the number of households in the sampling frame to create the weighting. In the U.S., however, the sampling fractions are estimated, based on the division of the number of households actually surveyed by the estimated out-migrant community households. Information on the estimation of the size of the out-migrant community is based on data provided by the heads of households regarding the location of children who are no longer residing with the head of the household.

over time (age, educational attainment, occupation, marital status, number of children, land and property ownership) as well as migration attributes (legal status, destination, family and community migration experience). Years are constrained from 1990 forward to 2007 and ages (at the time of the person-record) are constrained between 15 and 65. Additionally, the heads of households were limited to individuals who have migrated at least once to the U.S. since 1989. These migrants have lengths of stay in the U.S. that range from a few months to a few decades. The majority of these individuals have made multiple trips to the U.S., clearly demarking them as return migrants. For those who have made only one trip by the time of this survey data, they may or may not be permanent settlers. The purpose of this analysis is to analyze accumulated human, social and migration capital within migrant populations, whether from return migrants or permanent settlers. Heads of households in the data are almost exclusively male. As a result, no gender differences are included in the analysis.

This research is concerned with migrant streams to rural areas in the United States. For each trip included in the analysis, a binary variable indicates if the individual chose a metropolitan (urban) or non-metropolitan (rural) destination. A value of one indicates a rural destination. This variable provides the opportunity to examine the likelihood that persons with entrepreneurial experience are arriving in rural areas, indicating potential entrepreneurial capacity within the migrant rural community. Other individual characteristics are important for understanding migration as well as entrepreneurial behavior.

Age is an important variable when considering entrepreneurship or migration. Age-selective migration impacts the social, economic, and political features of both sending and receiving communities (Alba et al., 2004; Singer, 2004). Age structure patterns the demand for and contributions to local community institutions along with the social and physical infrastructure. The degree of household formation, fertility rates, need for educational institutions and demand for child or elderly care services are all conditioned by the age composition of the local population. In addition to community impacts, a positive relationship between age and entry into self-employment has been demonstrated (Bates, 1989; Boyd, 1991). Other human capital attainments such as education and work experience, also included in this model, accumulate with age, so a positive relationship might be hypothesized here as well. The age-migration relationship, however, is often anticipated to be an inverse one although recent research suggests that family life cycles as well as rural origin and rural destination condition the relationship of age to migration patterns (Farmer et al., 2008; Massey, 1990).

Educational attainment has been proven important in understanding small business creation as well as migration. Higher education levels are clearly linked to greater rates of entry into self-employment (Fairchild, 2008a; Fairlie & Meyer, 1996). In terms of the receiving communities, a migrant's education impacts the individual's ability to compete more effectively in the local labor market as well as function within the local social structure.

Previous work experience is another factor in both migration and business ownership. Much of the training of workers occurs outside formal education arenas and even workers with extensive formal education may not have skills required for specialized employment. Work experience, accumulated over time with age, is positively linked with self-employment (Fairchild, 2008b).

Marital status and the number of children in the household impact the likelihood of self-employment. Married persons with fewer minor children are thought to have more household resources for business formation and are more likely than single persons or single parents to engage in formal entrepreneurial activities (Bates, 1989; Fairlie, 2004). In terms of understanding migration patterns, marital status combines with family formation and a history of family migration to be salient concerns (Aguilera & Massey, 2003; Cerrutti & Massey, 2001; Farmer et al., 2011; Massey & Espinosa, 1997; Phillips & Massey, 2000). Marital status contributes to the economic decision-making that may result in new business formation and/or migration and also contributes to the health and stability of the individuals (Wilson & Oswald, 2005). Just as a family history of entrepreneurship is linked to business formation (Chang et al., 2008), a family history of migration has been linked to the propensity to migrate (Palloni et al., 2001) and suggests that the individual has knowledge and skills available that others without this family background may be unable to access. Family migration experience is captured by an indicator of the parents' experience as well as siblings' experience with migration to the U.S.

In conjunction with household and familial structure, household financial resources have been linked to self-employment (Fairlie et al., 1996; Fairlie & Robb, 2007). Indicators included in this model of household resources are variables reflecting whether or not properties, including the home, or agricultural lands are owned. These indicators have also been linked to migrants' remittances, propensity to migrate, and length of stay (Massey & Espana, 1987; Reyes, 2001; Roberts & Morris, 2003).

Along with familial migration networks, community experience with migration, and the resulting social and migration networks, are demonstrated to have a positive impact on migration decision-making (Aguilera et al., 2003; Kim & Aldrich, 2005; Ma 2002; Palloni et al., 2001). The percentage of adults in the sending community who have had migratory experience in the United States is included to capture this dimension. This variable is not directly linked to entrepreneurship except through the mediating pathway of being a migrant (Aldrich, Westhead, & Wright, 2000; Kalantaridis et al., 2006; Sahin, Nijkamp, & Baycan-Levent, 2006). Since one purpose of the analysis is to understand the entrepreneurial capacity within rural communities, characteristics of the migration networks leading to formation of the migrant pool within a rural community are salient indicators. A high percentage of origin community migration suggests more migration capital within the migrant population in a given area. Like social capital, migration capital suggests knowledge and networks available for leverage in tasks such as finding employment, housing, information, or, especially pertinent for entrepreneurs, business contacts.

Research in entrepreneurship has been largely concentrated on urban populations. However, rurality is linked to business formation, although researchers often attribute self-employment in rural areas to be a survival strategy more than a strategy for economic advancement per se (Fairlie et al., 2006; Portes, 1995). Rural origin is also linked to migration destination choices; other research has demonstrated that those migrants choosing to arrive in rural areas more often originate in rural areas (Farmer & Moon, 2009; 2011). Although not demonstrated definitively, researchers suggest the rural nature of the migration destination may be more familiar and less challenging than a new urban environment. Rural-to-rural migration may also imply more compatibility of community values as well as selectivity and relative competitiveness for employment opportunities.

Illegal status in the destination country can create barriers in employment, licensing, and business opportunities for migrants. Those persons in the country illegally are more vulnerable to exploitation in the labor market and encounter difficulties in being able to create new businesses which may require formal contact with governmental officials and regulatory agencies. A binary value, indicating whether or not the person has legal documentation for the given trip in question, is included to capture the relationship between legal status and entrepreneurial readiness.

The dependent variable—ownership of one or more businesses—is coded as a binary variable, with 1 representing ownership and 0 representing no ownership. All business types are included and no constraints were placed on whether previous businesses were in the U.S., Mexico or another location⁴. Table 1 presents the univariate statistics for the data set. Age, education, number of children, and percentage of adults in the sending community with experience migrating to the United States are continuous variables. The other variables are binary, with 1 representing possession of the trait.

Table 1. *Univariate statistics for model of ownership of one or more businesses*

Variable	Mean	Std Dev
Ownership of one or more businesses at time t	0.1111	1.1314
Age at time t	36.7635	40.3512
Marital status at time t	0.7462	1.5670
# children at time t	2.7400	8.9009
Education at time t	7.4114	14.3446
Non agricultural employment at time t	0.9024	1.0684
Owned land at time t	0.1125	1.1378
Owned properties (home, buildings) at time t	0.6338	1.7346
Parents have US migration experience at time t	0.3680	1.7365
Siblings have US migration experience at time t	0.3386	1.7040
Percentage of adults in community with US migration experience (expressed in hundredths)	0.2605	0.4366
Rural origin	0.3384	1.7037
Illegal status in US at time t	0.3196	1.6790
Selected rural destination (nonmetro) for trip at time t	0.0461	0.7552

N= 12,451 in 3,124 clusters

⁴ One reviewer questioned inclusion of owners of street vending businesses, as these are often driven more by survival strategies than business creation in response to a market or niche. A review of the data indicates that exclusion of street vending businesses does not change the findings substantively. Inclusion of street vendors captures accumulated experience and skills that can be used for more formal small business formation (see for example, Morales, 2009, or Raijman & Tienda, 2000). Street vendor businesses are included in this analysis.

3.0 Analytical Results

The dependent variable is a binary value, suggesting the use of a logistic regression for analysis. The event history table analyzed contains 12,451 individual records, weighted to more accurately represent the total population. Within this event history table, however, exist 3,124 clusters. These clusters represent individuals who may have from 1 to 13 records. These clusters are also grouped by communities and may contain correlation within an individual’s cluster and within communities, which violates the assumption of independence of the observations. Inefficient and incorrect estimation of the model’s parameters can result if this violation is not anticipated (Ballinger, 2004; Zeger & Liang, 1986).

Generalized estimating equations (GEE) are one approach to resolving this potential analytical hazard. GEE extend the generalized linear models (GLM), enabling an analyst to model the correlation matrix of the dependent variable through construction of a working correlation matrix. The non-likelihood based approach to modeling repeated measures or clustered data, then, accounts for this correlation (Zeger et al., 1986; Ziegler, Kastner, & Blettner, 1998).

Using notation from Liang and Zeger (1986), the general form of the GEE is given by Equation 1. The parameters’ matrix β is found by solving a set of k “quasi-score” differential equations described by

$$U_k(\beta) = \sum_{i=1}^N D_i V_i^{-1} (Y_i - \mu_i) = 0$$

$$\text{where } D_i = \mu_i / \beta \text{ and } V_i = \frac{(A_k)^{1/2} R_i(\alpha) (A_i)^{1/2}}{\phi} \text{ and}$$

where the dependent variable Y_{it} has k covariates. X_{it} where $i = \{1, 2, \dots, N\}$ is the set of units of analysis (“clusters” of records for an individual through time) and $t = \{1, 2, \dots, T\}$ for T time points. Given $Y_i = [Y_{i1}, Y_{i2}, \dots, Y_{iT}]$ as representing the column vector of observations for observation i , X_i then represents the $T \times k$ matrix of covariates for the same observations. The expected value $E(Y_i)$ can be calculated by a function h which provides a relationship between Y_i and X_i as $\mu_i = h(X_i \beta)$, where β is a $k \times 1$ vector of parameters and h is known as the “link” function.

Variance, V_i of Y_i , is given by a function g of the mean, $V_i = \frac{g(\mu_i)}{\phi}$ where ϕ represents a scale parameter. In this case, this model is a *binary* distribution and the link function is coded to be the *log* alternative accordingly⁵.

GEE is a large sample method that is particularly efficient in the case of large numbers of clusters (Liang et al., 1986; Zeger et al., 1986). As the number of clusters of records becomes large, the GEE parameter estimates are consistent even if the working correlation matrix is misspecified, as long as the mean model is correct. However, GEE models do not have direct goodness-of-fit measures readily available as with other methods. Several different ways of evaluating the fit of this

⁵ This model reduces to the familiar logistic regression should there be zero violation of independence within repeated measures on a subject (here an individual with multiple records, one per year).

model were used following the literature (Ziegler et al., 1998). These methods include comparing the empirical covariance structure used to estimate the model with the model-based covariance structure. These two structures should be—and in this case, are—close in values and identical in pattern and sign. Another method involves comparing the standard errors of the GEE model with a traditional linear model. If the standard errors are smaller in the GEE model than in the traditional linear model—as is the case here—then the GEE model is considered a better fit. The third method used was to employ observation level statistics to identify outliers and compare the model with and without these outliers. Few data points were found to be outliers and exclusion of these few points gives similar results to use of all data points. Consequently, the results reported here include all data points.

In this model, then, the dependent variable is ownership of one or more businesses and the independent variables, x_i , are all measured at time t and are, respectively, age, marital status, number of minor children, educational attainment, non-agricultural employment, land ownership, property ownership, parents with U.S. migration experience, siblings with U.S. migration experience, the percentage of adults in the sending community with U.S. migration experience, rural origin, illegal status in U.S. on this trip, and selection of a rural destination.

The results for the GEE model are given in Table 2. The odds ratios provide a comparison of how the dependent variable will make a unit change given a unit change in the independent variable, all other variables held constant. In this model, the dependent variable—ownership of one or more businesses—is modeled for the likelihood that the individual has the trait. As a result, odds ratios larger than one indicate an increase in the percentage of the odds that the individual does own a business and odds ratios less than one indicate a decrease in the likelihood the individual owns one or more businesses.

Family migration experience is mixed. Parental experience is less than one, indicating that those migrants who own businesses and migrate are family “pioneers” along with their siblings. Sibling experience with migration indicates a nearly two-fold increase in the likelihood that the migrant owns a business. This mixed picture was anticipated from earlier research on these recent migrants (Farmer et al., 2008; Farmer, Miller, Moon, Abreo, & McCullough, 2010). Clearly, although parental migration is less a factor, community migration experience is positively related to migrants who own businesses, though significant only at the $p < 0.1$ level. Given the current policy climate, it’s important to note that migrants who own businesses are half as likely to make an illegal entry into the United States. They are also nearly twice as likely to come from rural communities in Mexico.

Table 2. *GEE Model Results*

Parameter	Log Odds	95% Confidence Limits		Chi-Square	Pr > ChiSq
Age	1.049	1.047	1.051	2320.41	<.0001
Marital status	1.950	1.853	2.053	654.54	<.0001
# children	0.977	0.969	0.985	32.35	<.0001
Education	1.000	1.000	1.000	220.32	<.0001
Non agricultural employment	2.932	2.735	3.142	926.54	<.0001
Owned land	2.250	2.153	2.352	1288.46	<.0001
Owned properties (home, buildings)	1.625	1.555	1.698	466.01	<.0001
Parents have US migration experience	0.860	0.829	0.893	63.06	<.0001
Siblings have US migration experience	1.878	1.815	1.943	1317.89	<.0001
Percentage of adults in community with US migration experience	1.136	0.982	1.314	2.93	0.087
Rural origin	1.748	1.686	1.813	908.15	<.0001
Illegal status in US	0.510	0.486	0.535	773.63	<.0001
Selected rural destination (nonmetro) for trip	1.174	1.092	1.261	19.12	<.0001
Log Likelihood	-48922.06				

Of particular importance for this research, the parameter for selecting a rural destination in the United States is positive. A nearly 20% increase in the likelihood of owning a business will be found among those migrants selecting nonmetropolitan destinations in the U.S.

4.0 Conclusions

These findings paint a picture that is important for rural communities. Recent migrants from Mexico are arriving with a suite of human and social capital resources, which may be underutilized. Migrants with previous experience in owning a business provide rural communities with an unrealized pool of talent and experience. This research demonstrates that business owners who migrate are likely to be married, have non-agricultural work experience and other household

assets in the form of land and/or properties, and are more likely to be legally documented arrivals. Additionally, these migrants express additional risk-taking behavior, because they are more likely—along with their siblings—to be family “pioneers” in migrating, but still attached to migration networks through their community or other close, non-parental relatives. These characteristics illustrate entrepreneurial capacity within these migrant communities in rural areas.

Rural communities have long sought ways to enable or expand opportunities for their residents through a myriad of policy prescriptions and development programs. The continued dilemmas facing most rural communities of population loss of young people, aging in place, global economic changes, spatial isolation from markets, goods, and services in conjunction with limited government resources require community leaders to be innovative and creative with the available assets, whether natural-resource or human-resource based.

For the last several decades, agricultural restructuring has resulted in a shift away from reliance on farm income to a mix of on-farm and off-farm income or the abandonment of farming altogether (Dudley, 2000; Lobao & Meyer, 2001). The flow of manufacturing jobs into nonmetropolitan areas that was seen in the 1980s and 1990s has slowed. Indeed, recently, many U.S. rural communities are losing out to low-cost wage competition from other countries, and particularly, low-skill manufacturing jobs are disappearing as global competition increases. While service jobs may be on the increase, the growth of low-skill jobs in rural areas is declining (Gibbs et al., 2005). At the same time, demographic changes driven by migration are restructuring the available labor pool. This research suggests that one avenue available to communities is to tap the migrant community to enhance small business creation and provide jobs and economic diversity from talent and experience contained within that community.

Other research has suggested Latino migrants in particular may have lower business creation rates than native populations because of the historically cyclical nature of their migration patterns, especially migrants from Mexico (Durand et al., 2000; Durand, Massey, & Zenteno, 2001; Fussell & Massey, 2004; Massey et al., 1997). However, recent research suggests that Latino migrants are staying longer because of changes in immigration policy and enforcement and the increasing costs associated with return migration attempts (Massey, Durand, & Malone, 2002). The recent significant global economic downturn seems to be resulting in return migration for some migrants (WXII News 2009), but other very recent research indicates even longer stays as economic conditions are worsening in both sending and receiving countries (Kochhar, 2008).

Small business creation within the migrant community must grapple with several identifiable human capital barriers. While it has been demonstrated that more recent Mexican migrants to rural areas are more educated than earlier Mexican migration streams, they also have less English fluency and their education levels are still below that of native residents (Farmer et al., 2009). Research has suggested lower human capital attributes result in persons becoming self-employed as a survival strategy (Fairlie et al., 2006; Portes, 1995). However, recent research (Farmer et al., 2010) found little support among current Latin American immigrant entrepreneurs for self-employment chosen primarily as a survival strategy. Nevertheless, programs to encourage and support small business formation will have to acknowledge education and language deficits; initial results from recent research have established these barriers are surmountable (Abreo, Moon, Farmer, Miller, & McCullough, 2011;

Farmer et al., 2010). Small business creation within the migrant population might also strengthen formation of ethnic enclaves, but whether enclaves are reinforced by or spur business creation is different for different groups and settings (Fairchild, 2009).

We conclude then from this data that communities may, in fact, have a win-win opportunity at this juncture. Recent statements by the Obama administration called small businesses “the heart of the American economy” (Office of the Press Secretary, March 16, 2009). Encouraging small business development, entrepreneurship, and innovative problem-solving on the local level are all attributes available to local communities with the foresight to encourage their most recently arrived residents to leverage previous experience in business. Entrepreneurial-type activities are evident already in many of these communities as migrants create organizations, sports teams, and social activities for themselves. Hernández-León and Zúñiga (2002) argue the new migration destinations may indeed see more rapid and more numerous formation of cultural, sports and business ventures by recent Mexican immigrants (in their case to Dalton, Georgia). They contend these newer immigrant communities are mobilizing accumulated social capital from secondary immigrants with previous U.S. experience and from the migrants’ hometowns where many residents have both business and migration experience. The data we have analyzed provides broad empirical confirmation of accumulated social, migration and entrepreneurial experience for recent migrants to rural areas across the U.S. However, specific business formation pathways and entrepreneurial rates for newly arrived migrants in rural communities are still largely unexplored territory.

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6.0 References

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