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CRIME AND IMMIGRATION IN ALBUQUERQUE, NM

REAL OR MISPERCEPTION?

by

SAUNDRA D. DARAS

B.A., Anthropology
University of Texas at El Paso, 1995

THESIS

Submitted in Partial Fulfillment of the
Requirements for the Degree of

**Master of Science
Geography**

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July, 2014

DEDICATION

This thesis is dedicated to my mother whose immeasurable support made the completion of this project possible and to the love of my life, my son Ryan, who inspired me to begin this endeavor and to finish it.

ACKNOWLEDGEMENT

Crime and Immigration in Albuquerque, NM – Real or Misperception?

Saundra D. Daras

B.A., Anthropology, University of Texas at El Paso, 1995

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ABSTRACT

The decade between 2000 and 2010 marked the largest increase of immigrant populations in U.S. history, however crime rates have seen a decrease during this same period. Recent research suggests that immigrant groups may actually be associated with this phenomenon. As immigration rates are expected to continue to grow in Albuquerque and the U.S., further research into the relationship between immigration and crime rates within historical destination cities (i.e. Los Angeles, New York) and new destination gateway cities, such as Albuquerque, is necessary. This study examines how violent and non-violent crime rates in immigrant neighborhoods compare to those of non-immigrant neighborhoods in Albuquerque, NM over a four year time period. In this study immigrant neighborhoods are found to have a null or negative association to crime.

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CHAPTER 1: INTRODUCTION

Since the early 1920's, the relationship between crime and immigration has been deeply rooted in research conducted by the Chicago School (Shaw and McKay, 1942; Sutherland, (1934). Although research performed by the Chicago school emphasized how human behavior was not a biological disposition, but instead affected by social and physical environmental factors, an influx of immigrants from Europe entering the United States during the turn of the twentieth century led to public perceptions that immigration was associated with crime (Wright and Benson, 2010). Today, this misperception is still "deeply rooted in American public opinion and is sustained by media anecdote and popular myth" (Rumbaut and Ewing, 2007) and immigration is perceived to be strongly associated with urban violent crime (Lee and Martinez, 2009; Ousey and Kubrin, 2009; and Stowell et al. 2009). Research over the past decade, however, suggests that immigrant groups may actually be lowering violent crime rates within urban areas (Stowell et al., 2009).

As of 2010, 13.9 million of the 40 million foreign born people living in the United States (~35%) entered the country during or after 2000, thus marking the decade from 2000 to 2010 as having the highest number of immigrants in U.S. history (Camarota, 2011). In 2011 New Mexico was ranked 17th in the Nation for foreign-born populations; nearly 11% of Albuquerque, NM's population was foreign-born (U.S. Census Bureau, 2012). Until recently, previous studies have focused on immigration and crime within cities with large immigrant populations, along border cities, and immigration destination cities, such as El Paso, Texas,

San Diego and Los Angeles, California and Miami, Florida (Davies and Bursik, 2012; Lee and Martinez, 2002; Martinez et al., 2010). Albuquerque's total population is over 555,000, which is close to El Paso's at approximately 673,000, but less than half of San Diego's population of nearly 1.4 million people (U.S. Census Bureau, 2012). While Albuquerque is a unique city in that it is not a border city but is located approximately 240 miles from the U.S.-Mexican border and is the largest city in NM, it is also considered a "new destination city" for the foreign-born; one whose neighborhood compositions, including dynamics for immigrant populations, have evolved and changed considerably within the past two decades (U.S. Census, 1990, 2000, 2010).

Similar to other cities across the U.S., Albuquerque experienced an increase in foreign-born population as immigrants relocated from established ethnic enclaves in destination cities (i.e. Los Angeles, New York) to "new destination" gateway cities due to socio-economic and political changes (Ramey, 2013). Albuquerque experienced a 16% (approx.) growth in population between 1990 and 2000, and at the same time saw a 74% increase in the foreign-born population (U.S. Census Bureau, 1990 and 2000). The following decade Albuquerque's population increased 18% (approx.) and its foreign-born population increased by 33% (U.S. Census Bureau, 2000, 2010 and 2012).

As immigration rates are expected to continue to grow in Albuquerque and the U.S. (Camarota, 2012), further research into the relationship between immigration and crime rates within new destination immigrant cities, such as Albuquerque, is necessary. This study will examine if immigrant neighborhoods

in Albuquerque, NM are associated with violent and non-violent crimes. I hypothesize that immigrant neighborhoods will have a negative correlation with violent and non-violent crimes.

This research will compare crime rates using Albuquerque Police Department (APD) crime statistics from the years 2009 to 2012. A negative binomial regression model is used to identify the differences between specific types of crimes, such as aggravated assault and burglary, within immigrant and non-immigrant neighborhoods. The results will contribute to ongoing contemporary research in an effort to further understand the relationship between immigration and crime, most notably cities that have seen a significant change in its immigrant populations, such as Albuquerque. The findings may also challenge public perception that immigration and crime are causally linked (Stowell and Martinez, 2007).

CHAPTER II: LITERATURE REVIEW

Since the 19th century, efforts have been made to investigate the patterns of crime and immigrant populations, most notably in the 1930s with social disorganization theory. Mid-century research conducted by the Chicago School's Shaw and McKay (1942) explored juvenile delinquency within Chicago's neighborhoods, which provided foundational insights into the ecological explanation of crime that still continues to resonate in criminology today (Bursik, 1988). Although Shaw and McKay's research (1942) found that juvenile delinquency was common in areas of poverty and high foreign-born populations, they argued "that delinquency is not vitally related to race/ethnicity but rather to enduring social circumstances such as poverty, population turnover, and ethnic heterogeneity" (Lee and Martinez, 2002: 364).

Shaw and McKay (1942) also found that because immigrants came with few resources, they were more prone to reside in socio-economically disadvantaged neighborhoods, thus leading to ethnic/racial heterogeneity. As interaction amongst members of different racial and ethnic groups were considered less likely due to language and cultural barriers, ethnic/racial heterogeneity was considered to undermine community ties and social controls (Davies, 2012; Kubrin and Ishizawa, 2012; Stowell et al., 2009). Disadvantaged neighborhoods were also perceived to have high residential turnover, meaning that as residents achieved higher economic status, they were more likely to move to more economically advantaged neighborhoods (Bursik, 1988). Therefore, social disorganization theory argues that crime rates rise due to poverty,

residential instability, and ethnic and racial heterogeneity induced stress, which results in the inability of neighborhoods to self-regulate, reach common goals, solve mutual problems and develop social cohesion (Bursik, 1988; Kubrin and Ishizawa, 2012; Zhang and Peterson, 2007).

Contemporary Research

Although contemporary research has found some of the factors identified by social disorganization theory valid predictive indicators of crime, the relationship between immigration and crime needs to be revisited. Since Shaw and McKay's (1942) research over half a century ago, cities and the make-up of urban neighborhoods have changed. For example, the current influxes of immigrants are typically not of European decent as in the early 20th century. Instead, immigration to the United States is dominated by Hispanics and Asians, whose immigration increased from approximately six million people in 2000 to approximately 18.5 million people by 2012 (U.S. Census Bureau, 2012). Foreign-born Asians also increased in population from 2.5 million to nearly 10 million during the same time period (U.S. Census Bureau, 2012). Ousey and Kubrin (2009) found that between 1980 and 2000, cities that had an increase in immigrant population rates experienced lower violent crime rates. They found that these immigrant populations were more likely to be comprised of a two-parent households rather than single-parent homes, which also showed in their analysis to a have a negative relationship to crime.

Similarly, Stowell et al. (2009) and Wadsworth et al. (2010) found that in metropolitan cities with populations greater than 500,000, immigrants had a

negative correlation to violent crimes. A recent study of immigrant settlements within urban areas over the last decade has shown that many immigrant communities can foster social control, promote economic opportunities, encourage cultural traditions and support family ties, all of which have been found to impede crime (Ousey and Kubrin, 2009). Results from Martinez, Stowell and Lee's (2010) study of San Diego neighborhoods showed that the percentage of foreign-born persons correlated negatively with homicide rates.

Immigration Revitalization

The *immigration revitalization* perspective, proposed by Lee and Martinez (2002: 364), asserts "ethnically heterogeneous immigrant communities, while often quite poor, have contributed to a revitalization of familial, social, and economic institutions that offers their residents significant advantages". The immigration revitalization perspective does not altogether dismiss social disorganization theory, but it does reject the notion that residential instability and ethnic heterogeneity are precursors to crime. Lee and Martinez' (2002) study evaluated whether immigration and ethnic homogeneity affected crime rates and tested the immigration revitalization theory by comparing two areas in Miami; one consisting primarily of Haitian, Jamaican, and Puerto Rican immigrants (Little Haiti) and the other predominately African Americans (Liberty City). Their results indicated higher rates of crime within the homogenous African American census tracts than within the relatively heterogeneous immigrant neighborhood of Little Haiti. Their findings support the immigrant revitalization theory; demonstrating that an immigrant neighborhood that is ethnically heterogeneous can promote

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social organization processes and foster community relationships by facilitating strong family ties, the creation of enclave economies that support the local community, and new forms of social control that deter crime (Lee and Martinez, 2002).

Uggen and McElrath (2013) have shown that although immigration has increased within the U.S. since the 1990s, violent crime rates have decreased. Although there is evidence of a negative correlation between immigrant communities and crime (Kubrin and Ishizawa, 2012; Lee and Martinez, 2009; Martinez et al., 2010), the association between immigrant groups and crime varies across ethnic and racial groups (Davies and Fagan, 2012; Desmond and Kubrin, 2009; DiPietro et. al, 2012; MacDonald et al., 2010; and Stowell and Martinez, 2007). The varied experiences that different ethnic and racial groups have when settling into urban areas may lead to a shift in social control within their communities (Desmond, 2009). Factors such as education, work opportunities, and social and family ties can lead to residing in a "community of choice" as opposed to "ghetto of last resort" (Desmond, 2009: 587). Martinez suggests that future longitudinal studies would benefit from incorporating more precise characteristics of the foreign-born populations being studied (Martinez et al., 2010).

Although social disorganization perspective is a key component in understanding the relationship between crime and place, it needs to be rethought in terms of "the [sensitivity] to the differences among the foreign-born population and one that does not assume that immigration is causally associated with levels

of criminal violence" (Stowell and Martinez, 2007: 564). Most current research on the relationship between immigration and crime have consisted primarily of cross-sectional studies of violent crimes, with few longitudinal studies on a macro-level, though Martinez et al. (2002) and Ousey and Kubrin (2009) represent notable exceptions. Although cross-sectional studies can offer valid information regarding the relationship between immigration and crime, "[this] work must take for granted that communities do not change over time relative to each other or in terms of overall structural conditions" (Martinez, 2010: 802). Therefore, it should be noted that "we cannot make generalizations about the longitudinal immigration-crime relationship from extant cross-sectional research" (Ousey and Kubrin, 2009: 448).

Lee and Martinez' (2002) study of Haitian and African-American neighborhoods in Miami was based on a 1990 census data and they acknowledge that their study would have benefitted from a longitudinal analysis (Lee and Martinez, 2002). Similarly, several studies have utilized 2000 U.S. decennial data to identify socio-economic neighborhood characteristics (Macdonald, 2012; Stowell et al., 2009; and Stowell and Martinez, 2007). Martinez' et al. (2010) utilized a longitudinal study (1980-2000) that better captured the structural, residential instability, and demographic changes in San Diego and how the transition to a more immigrant city over time has led to a decrease in homicides within immigrant neighborhoods. Using a longitudinal approach, Ousey and Kubrin's (2009) also measured the change between immigration and violent crime from 1980 to 2000. One of their key findings was

that as immigration increased within their 159 studied cities, violent crimes decreased.

Another notable finding was that immigration was negatively linked to single-parent families and divorce, which was positively correlated to violent crimes. Research suggests the immigrants have "traditional ideas about family structure, and they work heroically to make them a reality" (Ousey and Kubrin, 2009; 453). A strong value on family bonds and structures suggests better community ties, which in turn guides social controls and leads to collective efficacy and decreases in crime.

CHAPTER III: DATA AND METHODOLOGY

This study will utilize crime data spanning a four year period (2009-2012) to analyze the relationship between immigrant neighborhoods and crime trends. This study looks to further explore how immigrant populations affect levels of crime in those areas.

Study Area

The city of Albuquerque is New Mexico's largest city, covering an area of approximately 188 square miles within Bernalillo County (Figure 3.1). Since 2000, Albuquerque has experienced a population increase of 21.68%, from 448,607 in 2000 to 545,852 in 2010 (U.S. Census Bureau). The median household income between 2007 and 2011 was $43,333, with approximately 20.4% living in poverty, making Albuquerque's metropolitan area (ABQ) one of the U.S.'s top 10 most impoverished cities (Bishaw, 2012). ABQ's largest minority group is Hispanic/Latino in origin (46.7%) followed by Native American (4.6%), Black or African American (3.3%), and Asian (2.6%) ethnic groups (U.S. Census Bureau, 2010). The second largest ethnic population in ABQ is White (42.1%). According to the U.S. Census Bureau (2012), approximately 10.9% of ABQ's total population between 2008 and 2012 were foreign born, which includes both naturalized and non-citizens.

The Albuquerque Police Department's (APD) jurisdictional boundary is defined by Albuquerque's metropolitan area (see Figure 3.1). Therefore, areas of Albuquerque that are part of the Bernalillo County Sheriff's Office (BCSO) jurisdiction are not included in this study. BCSO's jurisdiction includes areas such

as the North Valley and South Valley. In 2010, the South Valley's population was only 40,976, but a higher percentage of its inhabitants (18%) were foreign born.
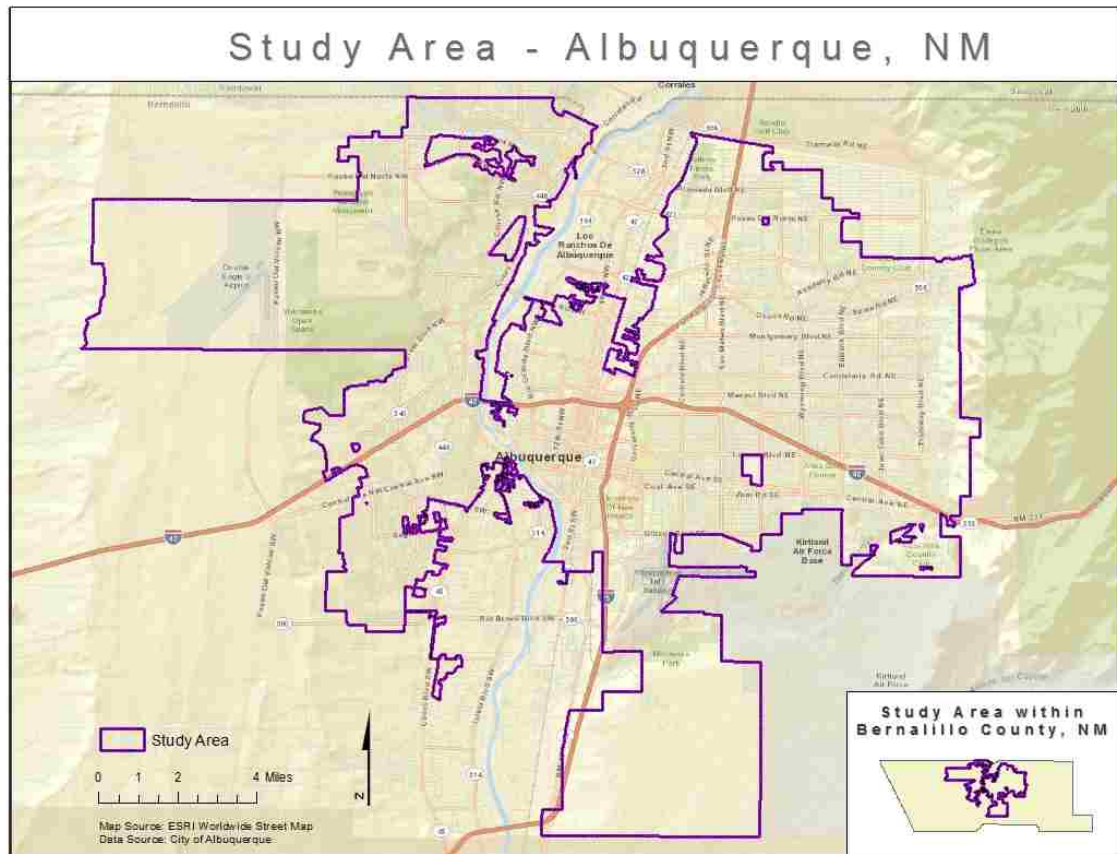
Figure 3.1: Map of Albuquerque Metro Area and APD Jurisdiction

Part I crimes (the most serious of offenses), such as aggravated assaults and robberies have decreased since 2009 (APD Annual Report, 2009 and 2012). For example, aggravated assaults declined from 3,396 in 2001 to 2,971 in 2010 and robberies declined from 1,610 in 2001 to 940 in 2010 (APD Annual Report, 2006 and 2010). However, other more serious crimes have risen. From 2001 to 2010, burglaries rose from 6,585 to 6,677, homicides rose from 35 to 41, and rapes rose from 219 to 338 (APD Annual Report, 2006 and 2010). Albuquerque's

Part I crime rates remains well above the national average rate of 3,446 crimes per 100,000 inhabitants, ranging from 8,768 in 2001 to 5,362 in 2010 (APD Annual Report, 2006 and 2010).

Crime Data

Part I (most serious of offenses) and Part II (less serious offenses) crimes for 2009 through 2012 were obtained from the APD as point shapefiles that consisted of all reported incidents. The data is considered "raw data" and consists of all calls for service incidents including those that may be later considered as unfounded or cleared. Unfounded can mean that it no longer fits the criteria for a particular crime category that it was originally coded under or it was a false report. Reasons incidents can become cleared are from lack of cooperation by the victim and the investigation is dropped or the case is unsolved and closed. Therefore, this data is not compliant with the FBI's Uniform Crime Reporting Standard (UCR) and is not the final record that is submitted to the UCR (± 5% margin of error) (Sarah Masek, APD, personal communication, March 5, 2014). UCR compiles all types of burglaries into one category (burglary) and only those Part II crimes with arrests are reported. Also, under the FBI's UCR reporting guidelines (2004), when there are multiple-offenses occurring simultaneously involving the same person or group, only the offense that is considered higher on the UCR hierarchal list is reported. For example, if there is a multiple-offenses situation where both robbery and auto theft have occurred, because robbery is higher than auto theft on the UCR hierarchy list, only robbery is reported.

APD crime data were appended to the 2010 census tracts by location query and then exported with census variables for statistical analysis (Figure 3.2). According to APD, crime data were converted to a new reporting system in March 2008, and therefore, only data after 2008 were chosen for this analysis in an effort to minimize inconsistencies between crime counts. At the time of obtaining the crime data, APD could not verify the completeness of the homicide data provided, so it was also excluded from this study. Also, due to the APD policy regarding the sensitivity of sex crimes, data for this type of crime are not included in this analysis.

Part I offenses are most likely to be reported by victims, are considered the most serious type of crime and because of the regularity in which they occur provides a sufficient basis for comparison (Winfree and Abadinsky, 2010). Therefore, many of the previous studies have only used Part I crime data retrieved from the UCR. It should be noted that although Part I offenses are more likely to be reported than Part II offenses, between 2006 and 2010 it is estimated that 58% of all Part I crimes in the U.S. went unreported, of which 60% of the total unreported crimes were related to property type crimes owing to reasons such as the victim not wanting to interact with the police, feeling that the police can't help, or not believing that it warranted reporting (Langton et al, 2012). Some violent crimes, such as robberies, are more likely to be reported to the police due the serious nature of the crimes and a personal disconnection with the offender, whereas aggravated assaults may be underreported due to the victim's feeling of

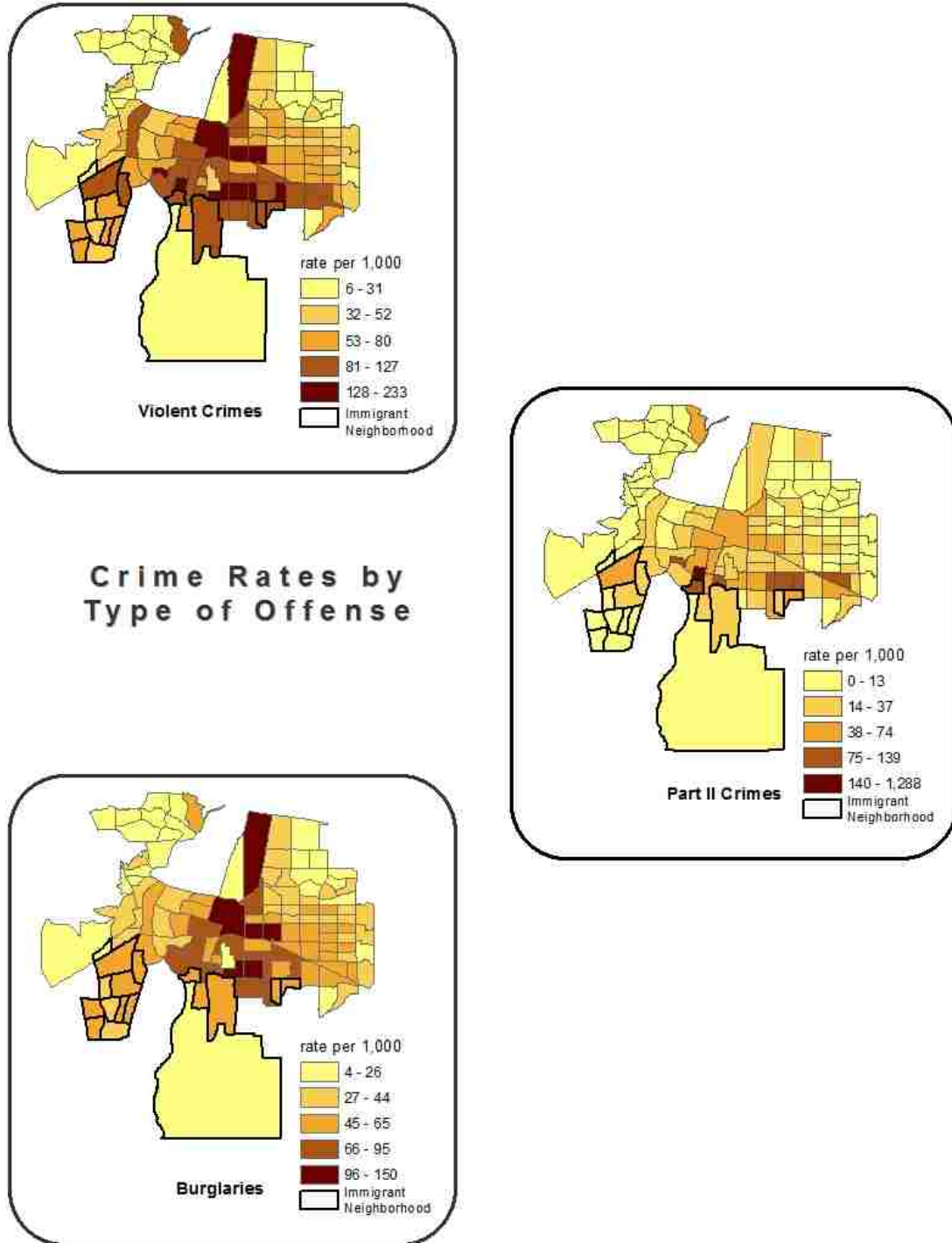shame or guilt and/or not wanting to get the offender in trouble (Wadsworth, 2010).

Figure 3.2: Map Showing Crime Rates by Offense

A Part II crime is considered a lesser offense and as mentioned previously, when an incident occurs where there may be multiple charges, the higher offense takes precedence when coding the incident. Additionally, Part II crimes retrieved from the UCR represent only those crimes which have arrests, therefore UCR data represent statistical summaries of arrests and not a total of all incidents. According to the New Mexico Department of Public Safety (2011-2104), the accuracy of the NM UCR data is a product of how each individual city, state, and county reported the data, which varies from agency to agency. In an attempt to further understand the connection between foreign-born population and crimes, both Part I (aggravated assaults, burglaries and robberies) and Part II crimes (narcotics violations, criminal trespass, vandalism, and weapons violation) obtained directly form the Albuquerque Police Department (APD) are used in this study.

Census Data

Similar to other studies (e.g., Krivo et al., 2009: Kubrin and Ishizawa, 2009; Lee and Martinez, 2009; Ramey, 2012; Stowell and Martinez, 2007; Zhang and Peterson, 2009), census tracts provide the unit of analysis based on which crime and socio-economic data are aggregated. Data from the 2012 American Community Survey (ACS) 5-year estimates were appended to the 2010 U.S. Census Bureau tract polygons to produce spatially explicit demographic data for each census tract. Data regarding the number of foreign-born after 2000 is only available through the ACS, of which only 5-year ACS estimates were available at a tract level for New Mexico. The ACS is an ongoing survey that measures

changing social and economic features of the U.S. population yearly and only to a sample of the population, whereas the primary purpose of the decennial census is to provide the official counts for the U.S. population once every 10 years (U.S. Census Bureau, 2014).

Census tracts with less than 50% of their total area falling within the APD jurisdictional boundary were omitted from the study (n=20 tracts), resulting in a total of 123 census tracts for analysis; all of which have population totals above 1,000 (Figure 3.3).
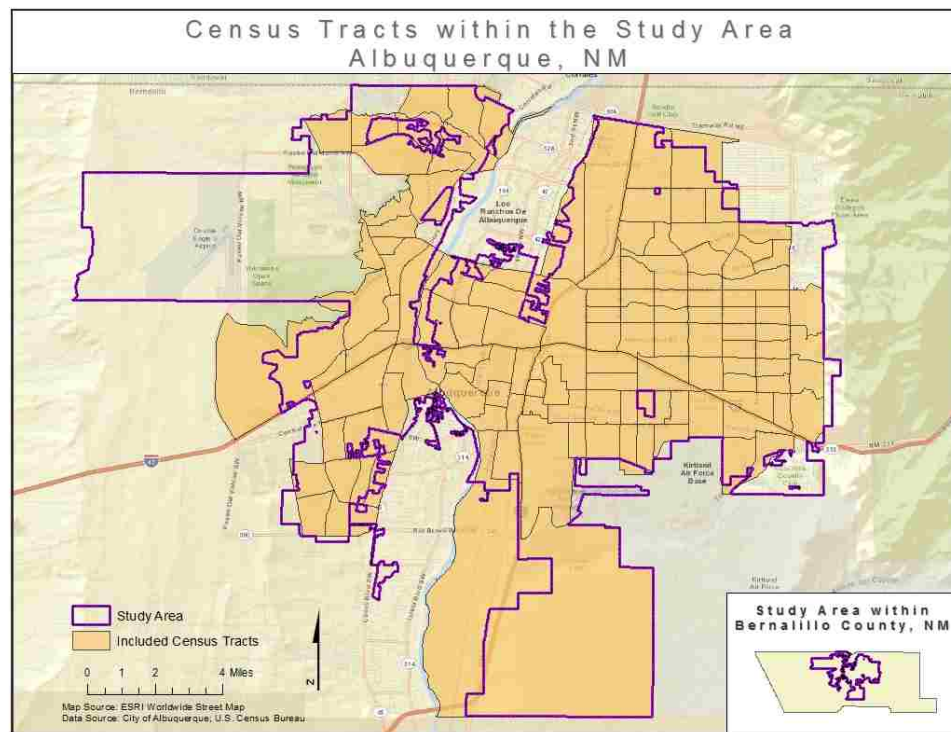

Figure 3.3: Map of Census Tracts Used in this Study

Dependent Variable

This study will examine both Part I (serious) and Part II (less serious) crimes and its relationship to immigrants. The dependent variables for this analysis include the sum (i.e., count) of each type of crime between the years

2009 to 2012 that occurred within a particular census tract. Counts are used in order to use a negative binomial regression statistical analysis discussed later in this chapter. It should be noted that although burglary is considered a Part I offense, it is not a violent crime and therefore was treated as a separate dependent variable. Dependent variables include Part I-Violent Crimes (sum of aggravated assaults and robberies), Part I-Burglary (property) Crimes (sum of residential and commercial burglaries), and Part II Crimes (sum of narcotics violations, criminal trespass, vandalism, and weapons violations). Multi-year crime counts are utilized in order to lessen the impact of rare events within small units over fluctuating years (Krivo et al., 2009; Kubrin and Ishizawa, 2012). Therefore, counts from crime data (2009 through 2012) are calculated for each dependent variable. A descriptive statistic summary of this data is presented in table 3.1. Crimes rates (per 1,000) are also provided in Table 3.1 for ease of interpretation.

Table 3.1: Descriptive Statistics Summary for Dependent Variables

DEPENDENT VARIABLES (2009-2012) Rates per 1,000	Mean	SD	Min	Max
Part I – Violent Crimes (combined)	17.38	18.10	2.00	331.00
Aggravated assault	8.78	8.48	0.00	68.39
Robbery	8.60	10.17	0.00	79.36
Part 1 – Burglary	47.61	26.13	4.45	150.07
Part II Crimes (combined)	32.47	117.01	0.21	1288.39
Criminal trespass	11.10	43.70	0.00	476.13
Narcotics violation	18.56	70.40	0.00	774.19
Vandalism	1.38	1.13	0.00	9.03
Weapons violation	1.44	2.83	0.00	29.03

Independent Variables

Neighborhoods are assessed using various independent variables consistent with social disorganization theory as indicators of neighborhood disadvantage and residential instability as well as immigrant concentrations. Correlation and principal component analyses were performed to eliminate collinearity between the various independent and dependent variables. Once collinearity is eliminated, a sequence of regression analyses is conducted on three different models.

An *Immigrant* is defined as a person not born in the U.S. and *immigrant concentration* is therefore measured by the percentage of immigrants per census tract. Previous research (Kubrin and Ishizawa, 2012) has identified a high correlation between the variables Latino/Hispanic and foreign-born populations. Therefore, a correlation analysis was conducted to identify if this existed between these two variables (Kubrin and Ishizawa, 2012; Ousey and Kubrin, 2009; Stowell et al. 2009). As suspected, Latino/Hispanic and foreign-born variables are highly correlated at r=.59 or 35%. Therefore, both variables are combined into an index for the measure of immigrant concentration, which is a common method used in other studies (Kubrin and Ishizawa, 2012).

Immigrant neighborhoods are defined by census tract areas that encompass neighborhoods whose population is born outside the U.S. Similar to other research, a spatial autocorrelation analysis employing Anselin Local Morans I is used to identify non-random foreign-born concentrations within tract clusters (Kubrin and Ishizawa, 2012; Kubrin and Ousey, 2009). Tracts that are

identified as having high-high clustering, using a second-order rook weight, are considered 'foreign-born neighborhoods' for this analysis and are coded as 1, while non-immigrant neighborhoods (i.e., all other areas) are coded as 0. Of the 123 census tracts, a total of 16 tracts are identified as 'immigrant neighborhoods' (Figures 3.4 and 3.5). The purpose of this variable is to explore if there is a relationship between crime and immigrant concentrations within a larger immigrant community.
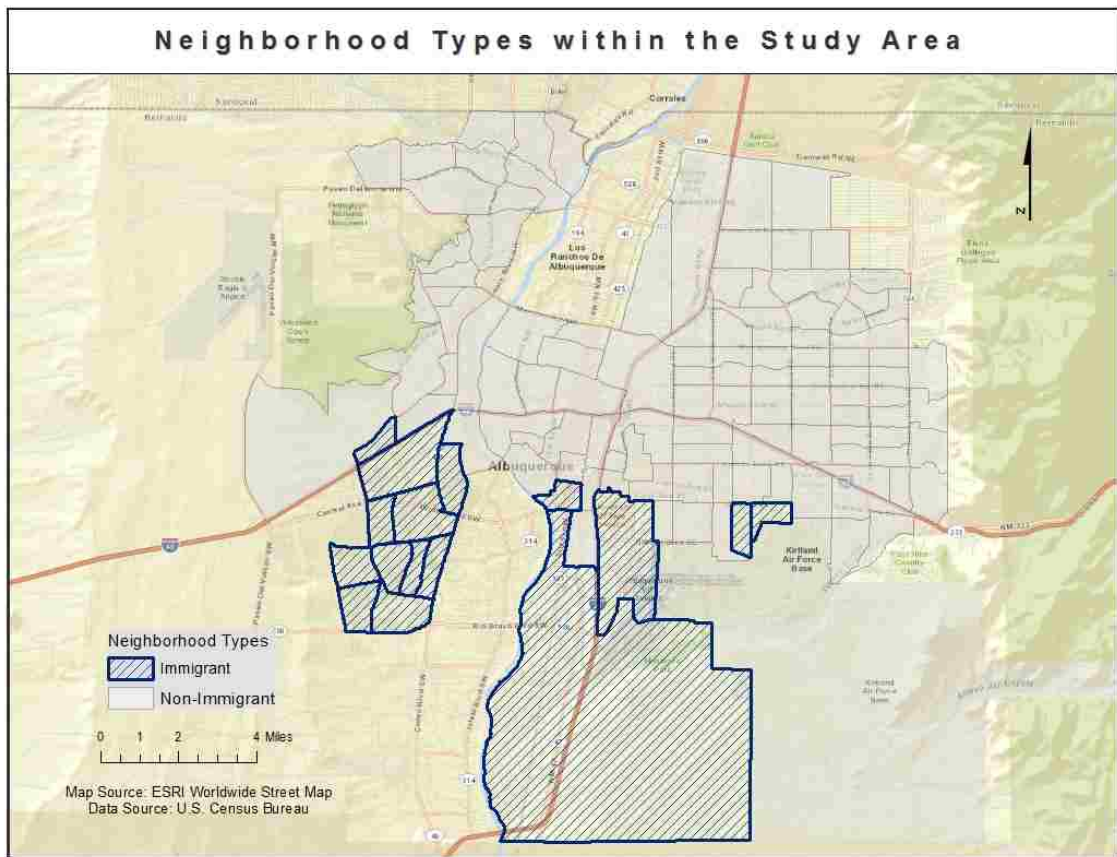
Figure 3.4: Immigrant Neighborhoods Resulting from Morans I Anaysis
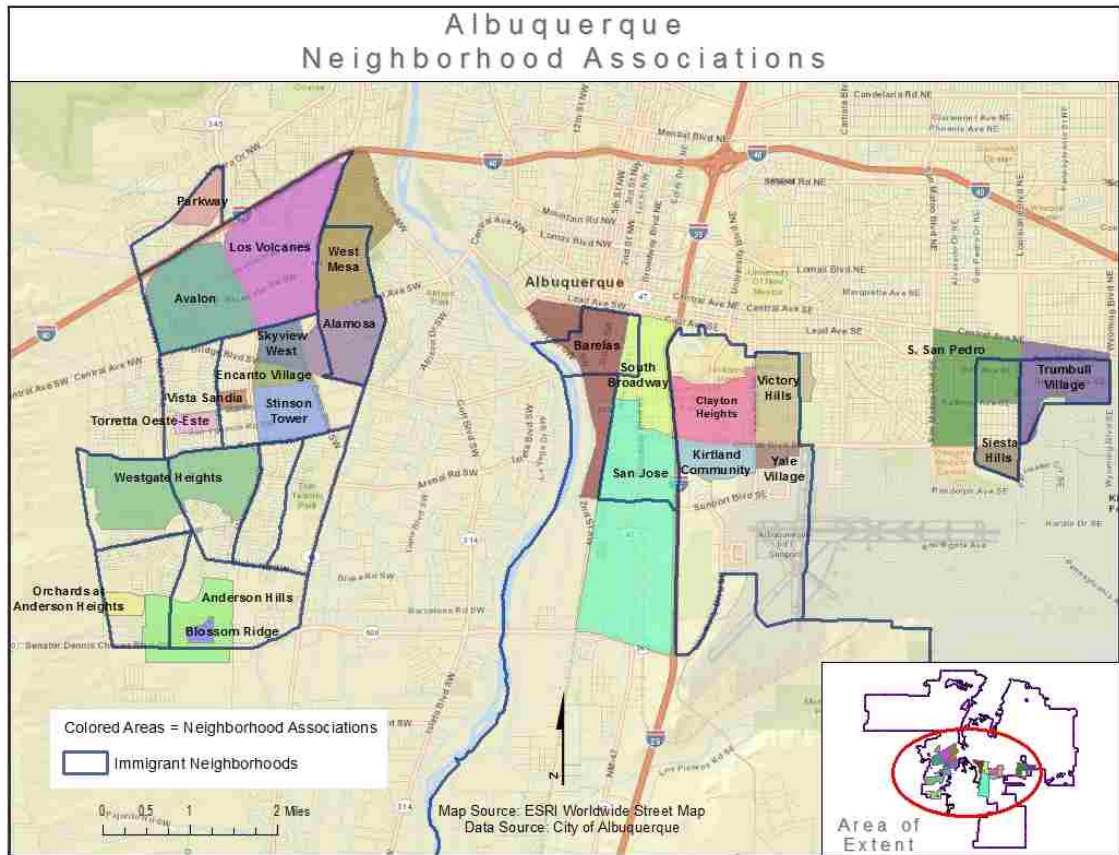
Figure 3.5: Albuquerque Neighborhood Associations within Defined Immigrant Neighborhoods

Social disorganization argues that socio-economic deprivation, residential instability and racial/ethnic heterogeneity lead to higher crime rates (Shaw and McKay, [1942] 1969). Previous research has shown there is strong collinearity between socio-economic types of variables. To account for the possibility of collinearity in this study, a Principal Component Analysis (PCA) was performed on all the independent variables in order to reduce the number of related variables by producing uncorrelated indexes.

PCA analysis using a varimax rotation resulted in variables loading onto one of two principal components, which were identified as *residential instability*

and *neighborhood disadvantage* and are presented in Table 3.2. The residential instability index includes variables for *percent movers (*residents who have moved into housing units in 2010 or later)*, percent housing* (owner-occupied housing units), and *percent vacancy* (housing vacancy). Variables represented by neighborhood disadvantage index include *percent female-head of household* (female headed households with no husband)*, percent unemployment* (16 years and older who are unemployed or not in the labor force)*, percent poverty* (population for whom status is determined below poverty)*, and *percent education* (population above 25 years with at least a high school education).

Table 3.2: Principal Components Matrix of Independent Variables

Independent Variable	Neighborhood Instability	Neighborhood Disadvantage
% Vacancy	**0.4596**	-0.0284
% Housing	**-0.5891**	-0.0032
% Movers	**0.5491**	-0.0897
% Education	0.0324	**-0.5673**
% Female-head of Household	-0.1237	**0.5608**
% Unemployment	-0.007	**0.4449**
% Poverty	0.3519	**0.3963**

Bold numbers indicates which factor the variable loaded onto

The variable *percent males* (percentage of males between the ages of 18 and 24) did not load onto the above indexes and, therefore, was treated as a separate independent variable. Lastly, because this analysis is using crime counts, there is a need to identify the changes in census tract population without assuming there is a relationship between crime and population. Therefore *population* is included as an exposure variable by constraining the coefficient to 1, thus making crime constant across census tracts with varying populations and controlling for other explanatory variables (Osgood, 2000: 39-40). In doing so,

the analysis is in effect transformed from a count to a rate analysis. A summary

of the independent variables used in this analysis is provided in Table 3.3.

Table 3.3: Descriptive Statistic Summary of Independent Variables

Independent Variables	Mean	SD	Min	Max
% Males (18-24)	50.06	13.08	18.82	87.98
Immigrant neighborhoods (# of tracts)	16*			
Immigrant Concentration				
% Foreign born	10.19	7.29	1.01	37.52
% Hispanic	44.24	19.12	9.53	94.48
Neighborhood Instability				
% Housing (owner occupied)	61.11	22.14	4.90	100.00
% Movers	12.64	7.33	0.90	42.90
% Vacancy	7.01	4.58	0.00	23.00
Neighborhood Disadvantage				
% Below poverty	17.45	11.40	0.40	45.70
% Education	88.17	10.28	47.3	99.50
% Female-headed household	13.53	6.46	1.22	34.72
% Unemployed	7.93	3.51	0.90	20.90
Exposure Variable				
Total population of all tracts	521,275*			
Total number of Tracts	123*			

Represents counts

CHAPTER IV: METHOD OF ANALYSIS

This analysis seeks to examine the relationship between immigrants and crime. The crime data used represents discrete, rare events that span across relatively small geographic units of measurement (census tracts). As suggested by Osgood (2000), a negative binomial regression (NBR) model was used to account for over-dispersion (i.e., variation is greater than the mean). Ordinary least squared regression models assume that data is evenly distributed and is continuous and therefore is not a suitable model for this analysis. NBR is similar to Poisson regression except that NBR can adjust the variance independently from the mean by adding an ancillary parameter, whereas using the Poisson with over-dispersion could lead to underestimates (biases) of the standard error. All regression models are run using STATA 12 (Statacorp, 2011).

Three individual regression models are created for each of the three dependent variables (violent crimes, burglary, and Part II crimes) to analyze how immigrant populations are related to various types of crimes. Using the NBR, Model 1 serves as a measure to the relationship between immigrant concentrations and crime. The Model 2 includes immigrant concentrations along with social disorganization variables (neighborhood disadvantage, neighborhood instability and males ages 18-24). To identify the effect of immigrant concentrations within clustered areas and its relationship to crime, the immigrant neighborhood variable is introduced into Model 3 in attempt to capture this phenomenon.

CHAPTER V: RESULTS

To investigate the relationship between immigrant neighborhoods and crime, three dependent crime variables (violent crimes, burglary and Part II crimes) and six independent variables, spanning 123 observations (census tracts with populations over 1,000) and across four years are used in this analysis. As described in greater detail in the previous chapter, three individual regression models are created for each of the three dependent variables to analyze how immigrant populations are related to various types of crimes (Tables 5.1 thru 5.3).

Model 1 reveals a significant positive relationship between immigrant concentration and all three dependent crime variables (violent crimes, burglary, and Part II crimes). This means, as the value of the dependent increases, so does the value for the variable immigrant concentration. However, in Model 2 immigrant concentration is negatively and significantly associated with burglary, meaning that as the value for burglary increase, the value of immigrant concentration decreases. Also in Model 2 for Part I violent crimes and Part II crimes, immigrant concentration is no longer significant in either case.

Based on the social disorganization theoretical perspective, it is not surprising that in Model 2, neighborhood instability (residential mobility, vacancy, owner-occupied housing) has a strong positive and significant relationship to all three types of crime. Also consistent with social disorganization theory, neighborhood disadvantage is positively and strongly associated with violent crimes and burglary. However it shows no significant correlation with Part II crimes in Models 2 or 3.

Table 5.1: Model 1 Negative Binomial Regression Results

Model 1	Part I–Violent Crimes	Part I–Burglary	Part II Crimes
Immigrant Concentration	0.342*** (0.104)	0.103* (0.050)	0.359* (0.173)
Total Population	Exposure	Exposure	Exposure

*=p≤0.05, **p≤0.01, ***P≤0.001; Note: standard errors are in parenthesis

Table 5.2: Model 2 Negative Binomial Regression Results

Model 2	Part I–Violent Crimes	Part I–Burglary	Part II Crimes
Immigrant Concentration	0.026 (0.134)	-0.189* (0.088)	0.269 (0.179)
Neighborhood Disadvantage	0.328** (0.110)	0.317*** (0.076)	0.102 (0.166)
Neighborhood Instability	0.483*** (0.083)	0.216*** (0.050)	0.841*** (0.147)
% Males (18-24 years)	-0.003 (0.005)	-0.000* (0.003)	0.002 (0.005)
Total Population	Exposure	Exposure	Exposure

*=p≤0.05, **p≤0.01, ***P≤0.001; Note: standard errors are in parenthesis

Table 5.3: Model 3 Negative Binomial Regression Results

Model 3	Part I–Violent Crimes	Part I–Burglary	Part II Crimes
Immigrant Concentration	0.147 (0.143)	-0.153 (0.091)	0.390* (0.184)
Neighborhood Disadvantage	0.368*** (0.101)	0.323*** (0.076)	0.142 (0.171)
Neighborhood Instability	0.460*** (0.085)	0.208*** (0.052)	0.825*** (0.150)
% Males (18-24 yrs)	-0.005 (0.005)	-0.001 (0.003)	0.000 (0.006)
Immigrant Neighborhood	-0.570* (0.233)	-0.143 (0.143)	-0.512 (0.311)
Total Population	Exposure	Exposure	Exposure

*=p≤0.05, **p≤0.01, ***P≤0.001; Note: standard errors are in parenthesis

Also, percent males (18-24) in Model 2 indicate a significant negative correlation with burglary. However the percent males (18-24) variable is not a significant predictor of violent or Part II crimes, a surprising finding given that males (18-24) are a population considered at risk for violent behavior.

Supporting the hypothesis, immigrant neighborhoods (i.e., model 3) display a significant negative correlation with violent crimes, while immigrant concentrations exhibited a null relationship. This suggests that while immigrant concentrations on their own may have a null relationship with violent crimes, immigrant concentrations set within immigrant neighborhoods decrease the likelihood of violent crimes. This is aligned with neighborhood revitalization theory that suggest immigrants can create collective efficacy and social controls that may be guiding the community and fostering an environment that deters crime. Conversely, immigrant concentrations exhibit a significantly positive relationship with Part II crimes but immigrant neighborhoods have no impact on these less serious crimes. Neither immigrant concentrations nor immigrant neighborhoods contribute significantly with burglary counts in Model 3.

In Model 3, neighborhood instability is strongly correlated with all three types of crimes, although all the coefficients show a decrease when compared to Model 2, which does not include the immigrant neighborhood variable. This implies that immigrant concentrations that are part of larger immigrant communities, although unstable, may be residing in these areas for longer periods of time and causing less neighborhood vacancies. Likewise,

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neighborhood disadvantage is highly correlated with both Part I crimes, but has a null effect on Part II crimes. This may be related to the fact that Part II offenses are being coded as Part I when multiple crimes occur simultaneous, and only the most serious of the crimes are being recorded. Regardless, it is evident that socio-economic characteristics related to social disorganization are prevalent where more serious offenses are taking place, of which immigrants have either a negative or null association.

CHAPTER VI: DISCUSSION

A limitation of this study is that foreign-born groups are not identified by place of origin. Distinguishing foreign-born place of birth, which can be obtained from ACS data, may identify disparities between crimes and ethnicities within foreign-born enclaves. Stowell and Martinez (2007) found that differences between foreign-born ethnic groups did vary across crime types. It should be noted that immigrants entering into a new community are coming with varying experiences, cultures, economic capital and education which can influence the levels of reception and adaption into areas (DiPietro and Bursik, Jr., 2012). For example Stowell and Martinez (2007) found differences between the structural and social conditions in which varying ethnic immigrant settle and differences in crimes associated within these enclaves in Miami and Houston. DiPietro and Bursik, Jr. (2012) also found distinct differences between Cubans, Nicaraguans, Columbians and Dominicans in Southern California and Florida. Different foreign-born enclaves may also experience disproportionate levels of law enforcement, such as policing, consequently underreporting of crimes may be prevalent to that area (Davies, 2012). Hence, grouping foreign-born into one category is not capturing the complexity and relationship between crime and immigration patterns.

Another shortcoming of this analysis is the problem of under reporting of crimes, most-notably of Part II crimes. By including various Part II crimes into one index of crime along with under reporting, the complexities of these types of lesser crimes are not being fully captured in identifying the connection between

these crimes and immigrant populations. However, it is important that future research begins to consider varying types of crimes outside of Part I crimes. Additionally, under reporting of crime is already an issue within crime statistics but is further exasperated due to lack of crime reporting in some areas owing to language barriers, fear of police and/or deportation, and lack of trust of the police department (Zatz and Smith, 2012).

Furthermore, immigrant neighborhoods in this study, does not necessarily capture the characteristics of when one immigrated or from what county. Large portions of Albuquerque's Metro area are known to be largely immigrant populations, such as the South Valley, are not included in this analysis because they are outside of the APD jurisdiction. These excluded areas may hold important evidence as to the nature of the relationship between crime and immigration.

CHAPTER VII: CONCLUSION

Over the past several decades, the U.S. has witnessed an increase in immigrant populations while at the same time experienced a decrease in violent crimes. Recent research has suggested that there is a link between decreases in crime and patterns of immigrants (Kubrin and Ishizawa, 2012; Martinez et al., 2010; Sampson, 2008; Stowell et al. 2009). In attempt to further understand this phenomenon, this analysis sought to study the connection between foreign-born populations to various types of crimes within Albuquerque, NM.

Upon examining the results from the three models, it appears that with respect to violent crime, immigrant neighborhoods are less likely to experience violent crime than non-immigrant neighborhoods. Although this result is contrary to social disorganization perspective, which suggests that immigration should weaken social controls and foster criminal deviance, the results aligns with current research which has indicated that immigration has either a negative effect or no relationship with violent crimes.

Since numerous immigrants tend to enter the country lacking economic resources or education, there is a propensity for immigrants to settle into impoverished areas (Ramey, 2009). Similar to prior research, it is not surprising that neighborhood instability and disadvantage factors are strong predictors of crime in this study. However, drawing on immigrant revitalization theory, one can hypothesize from Model 3 of this analysis, that neighborhoods which are comprised of higher immigrant concentrations may actually be formalizing social controls and cohesion, thus resulting in lower violent crimes amongst these areas.

Although these neighborhoods may be impoverished, the local communities may be embracing these new immigrants and providing means of creating connections for jobs and social networking. Thus, there is a reinvestment into the neighborhood both socially and economically. This in turn creates community ties and cultivates trust between its members, which can ultimately deter deviant behavior from occurring.

Residential instability within immigrant neighborhoods was found to have a significant relationship to all three crimes, despite not accounting for residents who move to a different dwelling in the same neighborhood. Additionally, because immigrants are likely to move into high-poverty areas, these areas tend to be spatially adjacent to other similar non-immigrant neighborhoods that have high-crime. This phenomenon may be causing crime from neighboring areas to be associated to immigrant neighborhoods (Davies, 2012).

Since the middle to later half of the twentieth century, immigrants and their purported association to crime have been woven into misconceptions, stereotypes and research owing to methodological shortcomings and anecdotal rather than systematic analysis (Davies, 2012). In 2005, over 300 State Legislative bills were passed in an attempt to reduce immigration; of which 39 were made into law followed by an additional 228 new laws enacted two years later (Zatz and Smith, 2012). As immigration continues to grow in this country, it is with optimism that this research, along with empirical evidence from prior research, will promote further understanding as to the complexity between

immigration and crime and to provide information that will assist policy makers in

making informed decisions.

REFERENCES

Albuquerque Police Department. 2006. *2006* annual report. Albuquerque, NM. Retrieved from (http://www.cabq.gov/police/our-epartment/reports/annual-reports)

Albuquerque Police Department. 2010. 2010 annual report. Albuquerque, NM. Retrieved from http://www.cabq.gov/police/our-epartment/reports/annual-reports

Batalova, Jeanne and Alicia Lee. 2012. Frequently requested statistics on immigrants and immigration in the United States Migration Policy Institute. Washington, DC. Retrieved from http://www.migrationinformation.org/usfocus/display.cfm?ID=886#2c

Bishaw, Alemayehu. 2012. Poverty: 2010 and 2011. American community survey brief. U.S. Dept. of Commerce, Economics and Statistics Administration, U.S. Census Bureau. Washington, DC. Retrieved from http://www.census.gov/prod/2012pubs/acsbr11-01.pdf

Bursik, R. J., Jr. (1988). Social disorganization and theories of crime and delinquency: Problems and prospects. *Criminology*, 26(4): 519-551.

Camarota, Steven. 2012. Projecting immigration's impact on the size and age structure of the 21st century American population. Center for Immigration Studies. Retrieved from http://cis.org/projecting-immigrations-impact-on-the-size-and-age-structure-of-the-21st-century-american-population

Camarota, Steven. 2011. A record-setting decade of immigration: 2000-2010. Center for Immigration Studies. Retrieved from http://www.cis.org/2000-2010-record-setting-decade-of-immigration

Davies, Garth and Jeffrey Fagan. 2012. Crime and enforcement in immigrant neighborhoods: Evidence from New York City *The Annals of the American Academy of Political and Social Science*, 641(1), 99-124.

Desmond, Scott A. and Charis E. Kubrin. 2009. The power of place: Immigrant communities and adolescent violence. *The Sociological Quarterly*, 50, 581-607.

DiPietro, Stephanie M. and Robert J. Bursik, Jr. 2012. Studies of the new immigration: The dangers of pan-ethnic classifications. *The Annals of the American Academy of Polticial and Social Science*, 641, 247-267.

Krivo, Laurie J., Ruth D. Peterson, and Danielle C. Kuhl. 2009. Segregation, racial structure, and neighborhood violent crime. *American Journal of Sociology,* 114:1765–802.

Kubrin, Charis E. and Hiromi Ishizawa. 2012. Why some immigrant neighborhoods are safer than others: Divergent findings from Los Angeles and Chicago. *The Annals of the American Academy of Political and Social Science,* 641, 148-173.

Langton, Lynn, Marcus Berzofsky, Christopher Krebs and Hope Smiley-McDonald. 2012. National crime victimization survey (NCVS): Victimization not reported to the police, 2006-2010." *Bureau of Justice Statistics (BJS).* Retrieved from http://www.bjs.gov/content/pub/pdf/vnrp0610.pdf.

Lee, Matthew T. and Ramiro Martinez. 2002. Social disorganization revisited: Mapping the recent immigration and black homicide relationship in Northern Miami. *Sociological Focus*, 35(4), 363-380.

MacDonald, John M., John R. Hipp and Charlotte Gill. 2012. The effects of immigrant concentration on changes in neighborhood crime rates. *Journal of Quantitative Criminology.*

Martinez, Romero Jr., Jacob I. Stowell and Matthew T. Lee. 2010. Immigration and crime in an era of transformation: A longitudinal analysis of homicides in San Diego Neighborhoods, 1980-2000. *Criminology*, 48(3), 797-829.

Masek, Sarah. 2014, March 5. Telephone interview. Albuquerque Police Department.

Osgood, D.W. (2000). Poisson‐based regression analysis of aggregate crime rates. *Journal of Quantitative Criminology*, 16, 21‐44.

Ousey, Graham C. and Charis E. Kubrin. 2009. Exploring the connection between immigration and crime rates in U.S. cities, 1980-2000. *Social Problems*, 56, 447-473.

Sampson, R.J. 2008. Rethinking crime and immigration. *Context,* 7(1): 28-33.

Shaw, Clifford R., and Henry D. McKay. [1942] 1969. *Juvenile Delinquency and Urban Areas*. Chicago: University of Chicago Press.

StataCorp. 2011. Stata: Release 12. Statistical Software. College Station, TX: StataCorp LP.

Stowell, Jacob I, Steven F. Messner, Kelly F. McGeever and Lawrence E. Raffalovich. 2009. Immigration and the recent violent crime drop in the United States: A pooled analysis of metropolitan areas. *Criminology*, 47(3), 889-928.

Stowell, Jacob I. and Ramiro Martinez, Jr. 2007. Displaced, dispossessed, or lawless? Examining the link between ethnicity, immigration, and violence. *Aggression and Violent Behavior* 12, 564–581.

Sutherland, Edwin H. [1924] 1934. *Principles of Criminology*. Chicago: University of Chicago Press.

Ramey, David M. 2013. Immigrant revitalization and neighborhood violent crime in established and new destination cities. *Social Forces*, 92(2) 597–629.

Uggen, Chris and Suzy McElrath. 2013. Six social sources of the U.S. crime drop. *The Society Pages: Social Science that Matters*. Retrieved from http://thesocietypages.org/papers/crime-drop/

United States Census Bureau. 1990. Summary tape file 3A: Colorado, New Mexico. Retrieved from http://www2.census.gov/census_1990/1990STF3.html#3A

2000. Table DP-1. Profile of general demographic characteristics: 2000. Retrieved from http://censtats.census.gov/pub/Profiles.shtml

2010. State and county quick facts. Retrieved from http://quickfacts.census.gov/qfd/states/35/3502000.html

2012. Selected characteristics of the native and foreign born: 2012 American community survey 5-year estimates. Retrieved from http://factfinder2.census.gov

2014. American community survey. Retrieved from https://www.census.gov/acs/www/

United States Department of Justice, Federal Bureau of Investigation. 2004. *Uniform Crime Reporting Handbook.* Retrieved from http://www.fbi.gov/about-us/cjis/ucr/additional-ucr-publications/ucr_handbook.pdf

Wadsworth, Tim. 2010. Is immigration responsible for the crime drop? An assessment of the influence of immigration on changes in violent crime between 1990 and 2000. *Social Science Quarterly*, 91(2), 531-553.

Winfree, Thomas L. Jr. and Howard Abadinsky. 2010 *Understanding Crime: Essentials of Criminological Theory*. 3rd edition. Belmont, California: Wadsworth.

Zang, Haifeng and Michael P. Peterson. 2007. A spatial analysis of neighborhood crime in Omaha, Nebraska using alternative measures of crime rates. *Internet Journal of Criminology.*

Zatz, Marjorie S. and Hilary Smith. 2012. Immigration, crime, and victimization: Rhetoric and reality. *The Annual Review of Law and Social Science*, 8, 141-159.