

**THE RESIDENTIAL SEGREGATION OF LATINO IMMIGRANTS IN THE U.S.:**  
**EXPOSURE TO CRIME AND THE EFFECTS OF PLACE OF DESTINATION**

A Dissertation

by

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## **ABSTRACT**

Even though spuriously, there is plenty of evidence that links race and ethnicity with street crime at the individual and aggregate levels. Typically, higher levels of disadvantage are linked to higher crime levels. However, despite the average low socioeconomic status of Latinos, the low crime proneness—particularly—of first-generation Latino immigrants has been well established in the literature with plenty of quantifiable evidence. This phenomenon has been called the Latino Criminological Paradox, or the Latino Paradox of Crime. In this dissertation, I use crime data from the National Neighborhood Crime Study 2000 (NNCS) and demographic data from 2000 Census' Summary File 3 (SF3) to assess whether a “paradox” exists. Then, I analyze the extent of this so-called “paradox” in terms of exposure to crime for Latino and non-Latino groups in traditional and non-traditional Latino immigrant destinations. I conclude my dissertation with Ordinary Least Squares (OLS) and Ordered Logistic Regression analyses to assess the effect that different variables have on crime rates and over-exposure to crime in 64 metropolitan areas.

This research shows that a Latino Criminological Paradox exists regardless of the type of destination in which immigrants settle. Even when Latino immigrants are residentially segregated to a similar extent than that of Black populations, immigrants are exposed to less crime in their neighborhoods. This research also shows that Latino immigrants experience some upward social mobility (in terms of residential attainment) after a period of 10 years of residence in the United States. In addition, I found no evidence to suggest that this “paradox” is more noticeable in traditional Latino immigrant destination than in non-traditional destinations, nor that residential attainment varies by type of destination.

One of the major contributions of this research is that it focuses on the residential segregation of Latino immigrants and its correlation with exposure to crime. Unlike previous literature, this research does not focus on criminal victimization or offending. In addition, this research analyzes data from 91 cities across the country, something that—to my understanding—has not been done before.

## **DEDICATION**

Dedicated to the memory of my friend and mentor, Juanita Firestone.

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## NOMENCLATURE

ACS	American Community Survey
ASA	American Sociological Association
CBD	Central Business District
CMSA	Consolidated Metropolitan Statistical Area
D	Dissimilarity
FBI	Federal Bureau of Investigation
MSA	Metropolitan Statistical Area
MVT	Motor Vehicle Theft
NNCS	National Neighborhood Crime Study
OLS	Ordinary Least Squares
SES	Socioeconomic status
SF3	Summary File 3
UCR	Uniform Crime Reports
US	United States

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# CHAPTER I

## INTRODUCTION

Many aspects of our daily lives depend on our geographic location. Some of these greatly influence our quality of life and overall life chances. Examples include the quality of public schools and other public services such as police, trash collection, and fire services; the quality and availability of urban infrastructures such as roads, streets, and water and sewage systems; and our levels of exposure to property and violent crimes; these are all important determinants of our well-being. In my dissertation, my general concern is with exposure to different types of crime.

Research to date has shown that ethnic and racial residential segregation patterns tend to lead to differential levels of exposure to crime in different areas of cities. Since disadvantaged ethnic groups are often exposed to higher levels of negative factors and subpar public services than are the majority group, one would expect to find that, on average, socially and economically disadvantaged minorities such as Hispanics<sup>1</sup> and non-Hispanic Blacks<sup>2</sup> would be exposed to higher crime rates than the majority non-Hispanic Whites.<sup>3</sup> Among Hispanics, the group that interests me the most, there are various factors that presumably would account for the differential levels of exposure to crime for the different Hispanic subgroups. In other words, Hispanic groups from different national origins, immigrants, and native-born Hispanics, and recent versus earlier Latino immigrants, might be exposed, on average, to different (statistically speaking) levels of criminality in “their respective neighborhoods.” Moreover, the differential

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<sup>1</sup> In this dissertation, the terms Hispanic and Latino are used interchangeably, and Hispanics may be of any race.

<sup>2</sup> From now on, non-Hispanic Blacks are referred to simply as Blacks.

<sup>3</sup> From now on, non-Hispanic Whites are referred to simply as Whites.

levels of exposure to crime experienced by Latino groups may be, in part, the result of structural characteristics of the city in which they chose to settle, and not only of their sub-group membership. This is, some cities might facilitate the inhabitants' over-exposure to crime or hinder their chances of upward social mobility (or the opposite).

Despite the average low socioeconomic status of Latinos, the low crime proneness, particularly of first-generation Latino immigrants, has been well established in the literature with plenty of quantifiable evidence (see, for example, Lee, Martinez, and Rosenfeld 2001; Martinez and Valenzuela 2006; Martinez 2002; Sampson 2008; Stowell and Martinez 2009). This phenomenon has been called the Latino Criminological Paradox, or the Latino Paradox of Crime. This "paradox" defies some of the arguments based on Social Disorganization Theory, which stresses the crime-producing effects of social and economic disadvantage.

It is important to note, however, that the predisposition to low crime shared by first-generation immigrants may well be diluted with each subsequent generation in the United States (Sampson 2008:30). In fact, the Latino Paradox of Crime and its dilution across generations also extend to other positive traits found among Latino immigrants. Latino immigrants generally commit less property and violent crimes (Martinez 2002; Sampson 2008), have lower rates of use and abuse of alcohol, tobacco, and illegal drugs (Akins et al. 2008; Vega and Gil 1998), live longer (Abraido-lanza et al. 1999; Markides and Coreil 1986), and have fewer children (Frank and Heuveline 2005) than Latino second generation immigrants. In the case of drug abuse, this is a pattern that has not been observed among immigrants in countries other than the United States, according to some researchers (Gailly 1997; Hjern 2001; Kahn and Fua 1995; Schiff, Rahav, and Teichman n.d.; Turner, Lloyd, and Taylor 2006).

I hypothesize that residential segregation is, ultimately, the main cause of the weakening of the positive traits observed in Latino first-generation immigrants, especially in the case of low

criminal offending. In addition to being exposed to higher crime, belonging to a disadvantaged segregated community should tend to hinder the social mobility of Latino immigrants and their descendants. Higher criminal offending rates found in second generation Latino immigrants may be—in part—the result of having been raised in a disadvantaged environment characterized by high poverty and criminality.

Several studies document the link between victimization experiences and the witnessing of community violence and interparental violence during childhood to a variety of aggressive and violent behavior problems (Aisenberg and Herrenkohl 2008; Farrell and Bruce 1997; Foster and Brooks-Gunn 2009; Gorman-Smith and Tolan 1998; Margolin and Gordis 2000; Miller et al. 1999). This evidence suggests that the very fact of being exposed to higher crime in our youth—and not necessarily victimized—would make them more likely to engage in violent behavior during their childhood and as adults. Indeed, research shows that the rates at which children witness violence exceed the actual victimization rates (Stein et al. 2003). These findings have particular relevance for the justification of my research.

Moreover, the witnessing of violence does not have to be direct in order for it to have a negative impact (Foster and Brooks-Gunn 2009; Margolin and Gordis 2000). “[E]ven children who do not directly witness community violence often hear repeated accounts of a specific incident, and may form their own mental imagery of the event” (Margolin and Gordis 2000:448). There are data that suggest that in inner-city neighborhoods, almost all children have been exposed to community violence (Margolin and Gordis 2000). This has quantifiable consequences. Bingenheimer and colleagues (2005) found that being exposed to firearm violence doubles the teens’ probability of perpetrating serious violence in the next couple of years.

A social-learning approach (i.e., violence is a learned behavior) to this problem provides a theoretical foundation to account for why the Latino Criminological Paradox gradually fades

across generations. If the witnessing (directly or indirectly) of violence is linked to subsequent violent criminal offending, the low crime proneness of Latino first-generation immigrants will continue to gradually dilute with every ensuing immigrant generation in the United States, if residential segregation of Latinos is not taken into consideration.

### **1.1 Personal Interest**

As a graduate student in the Criminal Justice Department of The University of Texas at San Antonio (UTSA), I was first introduced to the Latino Paradox of Crime the very day I defended my master's thesis. Apparently, I neglected to explore this area of criminological literature while undertaking research on violence in the city of San Antonio. My defense was successful, but I left the presentation room having more questions about the causes of crime and violence than I had before my thesis defense.

A few days after my defense, a lengthy talk with the very professor who inquired about the inclusion of the Latino Paradox of Crime in my literature review furthered my interest in the topic. Indeed, the low proneness of Latino immigrants was something that I had already noticed, based on my personal experience. As a Mexican immigrant who had worked many blue-collar jobs upon his arrival to San Antonio (one of the most important traditional Latino immigrant destinations in the country), I had plenty of anecdotal evidence of this "paradox." I never witnessed any kind of violence or crime in the *barrios* in which I lived for a few years, and I noticed that my blue-collar co-workers from México often had to work a second or third job to make ends meet and even to manage to send some money back home. Hence I thought that, even if they wanted, they did not have enough free time to "misbehave." I also noticed that, because of their extended working hours, in many instances their US-born children lacked parental supervision. I, however, had no idea these were topics that had been addressed academically.

When I became more versed in the literature dealing with the Latino Criminological Paradox, I also noticed that the popular perception did not seem to match the facts. “Why is this even called a paradox? Does that mean that Americans cannot understand why we are not committing ‘enough’ crimes?” I wondered. The negative stereotype attributed to Latino immigrants bothered me, for obvious personal reasons. However, I was more concerned about the fact that, by using generational status as the only predictor of crime, the children I could potentially have one day, would be likely to have a higher involvement in criminal offending than myself; furthermore, my potential grand-children would have even higher rates of criminal involvement than my children. For these reasons, endeavoring to explain the causes of the Latino Criminological Paradox and—even more important— why this “paradox” gradually fades with each generation in the United States, is not only in my academic interest, but also in my personal interest as an immigrant.

## **1.2 The Latino Criminological Paradox**

Overall, the link between low socioeconomic status (SES) and crime has been well established in research, and well supported with decades of empirical studies. There is consensus in the criminological community that SES is negatively correlated with crime and violence; as SES goes up, crime and violence go down, and vice versa. However, this correlation may not be as easily identified in all instances. Relatively recent empirical studies suggest that the correlation between SES and crime rates does not hold equally for all social groups with similar socioeconomic characteristics. Namely, Latinos—and particularly Latino immigrants—often show lower rates of criminal offending than those rates predicted using their socioeconomic characteristics (Lee et al. 2001; Martinez and Valenzuela 2006; Martinez 2002; Sampson 2008; Stowell and Martinez 2009). Latino populations are disadvantaged and also disproportionately young (U.S. Census Bureau 2010b, 2010c). This constitutes an additional “risk” factor for high



crime, according to developmental criminology (Hirschi and Gottfredson 1983). Moreover, recent research has also found that immigration status is not only not the cause of high crime, it could even be a means of forming safer communities (Sampson 2008). This is, social and economic deprivation have been found to not be significant predictors of violent crime in neighborhoods with high Latino immigrant concentrations, a.k.a., Latino *barrios* with high levels of segregation (Martínez, Rosenfeld, and Mares 2008; Stowell and Martinez 2009). These findings are part of the aforementioned Latino Criminological Paradox.

Nowadays, immigrants to the United States and their children constitute two of the main contributors to population growth in the country. It is projected that by 2050, international migration will surpass natural population increase (births minus deaths) as the principal driver of growth (U.S. Census Bureau 2013). Hence, it would seem to make sense to assess the degree to which immigrants and their children are being exposed to crime, and to also examine their mobility opportunities. The over-exposure to crime of such a significant part of the population, and the concomitant lack of upward mobility, have real consequences as far as the perpetuation of crime cycles across generations is concerned.

Sampson has pointed that “[i]t has been widely hypothesized that immigrants, and Mexicans in particular, selectively migrate to the United States on characteristics that predispose them to low crime, such as motivation to work, ambition, and a desire not to be deported” (Sampson 2008:30). But it is not clear what differentiates Latino immigrants—and probably all immigrants—from other disadvantaged groups with regard to criminal behavior. However, the causes of this “paradox” are not as troublesome as to explain why the “paradox” gradually disappears for Latinos as they acculturate in the United States, as research has shown (Hagan and Palloni 1999; Sampson 2008).

### **1.3 The Status of Latino Segregation**

Many studies have linked segregation and crime for all racial and ethnic groups (Bjerk 2006; Feldmeyer 2010; Holloway and McNulty 2003; Massey 1995; O’Flaherty and Sethi 2007). Furthermore, Massey (1995) and Charles (Charles 2000) have even considered that residential segregation has tended to perpetuate the status-quo. Massey stressed that residential segregation is a cause and effect of high crime and poor economic conditions in minority neighborhoods; that is, without desegregation, violence is unlikely to go down, and without lower crime, desegregation is unlikely to occur.

As far as the Hispanic, and particularly the immigrant Hispanic, population is concerned, they have been residentially segregated for decades in the United States. From 1980 to 2000, Blacks were the most segregated group in the United States, and Asians and Hispanics were moderately segregated. These last two groups were easily integrated into majority communities as their SES increased. However, even when Hispanics were not segregated to the same degree as Blacks, there were significant differences across different Hispanic sub-groups, and nativity was a strong predictor of Hispanic segregation (Iceland and Nelson 2008). That is, immigrant Latinos were more segregated than native-born Latinos. Indeed, it has been observed that Hispanic segregation increases in places with rapid Hispanic population growth—such as those enhanced by immigration (Logan 2003; Massey and Denton 1987).

Then, despite the fact that Latinos are, in general, a socially deprived group, Latino crime patterns do not seem to resemble those of other minorities. This is, socioeconomic disadvantage and residential segregation are not the strong predictors of crime for Latinos and Latino immigrants they are for other groups. This is true at both the individual and aggregate levels (Martínez et al. 2008; Sampson 2008; Stowell and Martinez 2009). However, some studies have suggested that the Latino Criminological Paradox only exists in places with pre-existing

and strong immigrant networks. This is, there does not seem to be a Latino Paradox in non-traditional Latino immigrant destinations (Shihadeh and Barranco 2010).

It is my intention to contribute to the literature on residential segregation and the Latino Paradox (or Paradoxes) with the research I will undertake in my dissertation. Researchers studying residential segregation and the Latino Criminological Paradox have tended to focus mainly on Black/White or Hispanic/White segregation, as well as on criminal offending differentials only, and have used nativity merely as a control variable (Bellair and McNulty 2005; Martinez, Nielsen, and Lee 2003; Massey 1995; Sampson 2008).

There is no research, to my knowledge, that has focused on the residential segregation of Latino immigrants and its correlation with exposure to crime. Moreover, studies of social mobility of immigrants usually focus on intergenerational social mobility, and not on the mobility that immigrants can experience within their own lives, a phenomenon I will also address in my dissertation. Lastly, it is not clear at all why the existence of strong Latino immigrant networks is related to lower levels of exposure to crime and patterns of social mobility among Latino immigrants; these networks which share a common language and culture are typically found in traditional Latino immigrant destinations. In my dissertation, I intend to study this relatively unexploited area of scholarship.

In the next chapter of my dissertation, I will review in more detail the relevant literature on the Latino Criminological Paradox and on residential segregation. I will also identify some of the specific voids in the literature that I will endeavor to address in my dissertation.

## **CHAPTER II**

### **LITERATURE REVIEW**

In this dissertation I, am concerned with the dynamics and associations of residential segregation and crime, with a special focus on Hispanics, and with an even more special focus on Hispanic immigrants. There is an extensive literature on these topics. In this chapter, I review some of the major features of this literature. First, I show how most everything dealing with segregation and crime began with the Chicago School of Sociology. Then, I address another very important aspect of my dissertation, the Hispanic Criminological Paradox. In this chapter, I also review this literature, and the literature concerning residential segregation. Finalize by reviewing some of the literature on social mobility among immigrants.

Given its centrality to the topics of my dissertation, I begin my literature review with a discussion of the Chicago School of Sociology and Criminology. In this first section of the literature review I will consider the subsections of *The Marginal Man* and *The City*. These subsections were included because both of them establish important concepts from the Chicago School that I will revisit in my dissertation. *The Marginal Man*, as defined by Robert Park, is the immigrant, a promoter of cultural evolution and change. Immigrant communities are constituted by marginal men and women that group together and unintentionally develop strong social bonds through an exalted sense of group belonging. In the subsection that follows, *The City*, I will explain the Concentric Zone Theory developed by Ernest Burgess and the role that immigrants play in the growth of cities. I finalize this section by summarizing what is “social disorganization,” which is another term coined in the Chicago School, and how it get intertwined with the application of the Concentric Zone Model.

After discussing the Chicago School, I will next review the basic literature pertaining to residential segregation. In this section of the literature review I will develop the subsections of

Racial and Ethnic Differences in Residential Segregation Patterns, Causes of Residential Segregation, and Residential Segregation and Crime. The first subtopic will be addressed primarily to draw a distinction between residential segregation patterns of Latinos and residential segregation patterns of Blacks, another similarly-disadvantaged minority group; this is an important distinction that has to be done when researching the Latino Criminological Paradox. The subsection of Causes of Residential Segregation will be considered to outline the principal causes of segregation according to the existing literature. Contemporary literature shows that residential segregation may be enhanced by differences in socioeconomic status and discrimination, as it has traditionally been assumed. However, some studies have attributed some of the residential segregation to the preferences of the members of a minority, particularly immigrants. This is important to discuss given that the ideas of the ethnic neighborhood and the immigrant enclave are central to my dissertation. The last subtopic of this section of my literature review is Residential Segregation and Crime. This topic will be addressed given that, before addressing the Latino Paradox of Crime, I must outline the traditional segregation literature in order to show why criminality in Latino neighborhoods is considered as paradoxical.

The last component of my literature review is The Latino Epidemiological and Criminological Paradoxes. This is the most important part of the literature that will be addressed in my dissertation. The Latino Criminological Paradox, which is related to the Epidemiological Paradox, explains low criminality among Latino immigrants and Latino immigrant communities. In this section I will also explain how the “paradox” found in Latino immigrants apparently dilutes with each subsequent generation in the United States. In this section I will consider the subsection of Immigrant Communities and Linguistic Isolation and the subsection of Social Mobility of immigrants in the US. As I previously mentioned, low Latino immigrant criminality is deemed as paradoxical given the low average socioeconomic status of immigrants. This

characteristic is shared by the Black population in the US. However, Latino immigrants share an additional disadvantage when compared to most Blacks. Latino immigrants often find themselves as being linguistically isolated in their neighborhoods. This could as well be a predictor of high crime, but according to the Latino Criminological Paradox it is not. Finally, social mobility of immigrants will be addressed given that in my dissertation I pretend to contrast the mobility (in terms of segregation and exposure to crime) of Latino immigrants and US-born Latinos and of Latino recent and earlier immigrants.<sup>4</sup>

At the end of my literature review I outline five hypotheses regarding my expected findings. Overall, I expect to find that Latino immigrants will have more favorable levels of segregation and exposure to crime than Blacks, but not than Whites; earlier immigrants will be in a more advantageous situation than recent immigrants; and that these findings will be more noticeable in traditional Latino immigrant destinations than in non-traditional destinations. Furthermore, I expect these findings to be more noticeable for violent crimes than for property crimes.

## **2.1 The Chicago School of Sociology and Criminology**

In sociology, the Chicago School refers for the most part to the body of literature that originated in the Department of Sociology of the University of Chicago during the 1920s and the 1930s. The Chicago School's groundbreaking work on the study of human populations focused on the empirical relationships of humans with their natural and built environments. For this school of thought, the study of humans as an aggregate of individuals, and the context in which

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<sup>4</sup> From now on, recent Latino immigrants and earlier Latino immigrants will be referred to as simply recent and earlier immigrants, respectively.

those individuals lived, had particular relevance. That is to say, the Chicago School was interested in how groups of individuals behaved in a given environment under specific contextual conditions, and how these individuals transformed, and were transformed by, the natural and built environments they settled in. The contributions of the Chicago School were not only relevant theoretically; Chicago sociologists also contributed to sociology via new research methodologies.

The most important contribution of the Chicago School to the general discipline of sociology is, perhaps, the promotion of mixed methods for the spatial study of human populations. The use of this kind of methodology permitted the further development of the Chicago School in the theoretical realm. Some of the more important texts that originated in Chicago mixed ethnographic research with quantitative methods. In the early 20<sup>th</sup> century, the use of ethnographic methods was already well established in fields such as sociology, journalism, and anthropology. However, the use of quantitative methods in sociology was still relatively new. In 1925, Robert Park, one of the three Fathers of the Chicago School (along with Ernest Burgess and R.S. McKensie), delivered his Presidential Address to the American Sociological Society, today known as the American Sociological Association (ASA). His address was entitled “The Concept of Position in Sociology” (Park 1925). Park declared that social phenomena were something that could be subject to mathematical measurement.

When Columbia professor Franklin Giddings, one of the “Founding Fathers” of American sociology established the field of quantitative sociology, the widespread use of quantitative methodology had not yet occurred. Giddings wrote two of the first textbooks in quantitative sociology early in the 20<sup>th</sup> century, *Inductive Sociology* (1901) and *The Scientific Study of Human Society* (1924). But by the time Park delivered his speech in 1925, the quantification of social phenomena was still considered somewhat unorthodox. Some

sociologists even deemed quantitative sociology as some sort of quasi-sociology based on empirical observation only. They did not consider it real sociology because they said that it “lacked theory.”

In the early stages of the Chicago School, Park and his colleagues received much criticism. Park was not formally trained as a sociologist, but as a journalist. And when Park studied under the renowned sociologist Georg Simmel, he earned his doctoral degree in a different field, philosophy (Romero 2014). Chicago School’s detractors argued against Park’s atypical sociology background, considering it a misfit for the discipline. These detractors argued that Park and his colleagues’ methodology, even when amusing, could not produce good sociological research, and that Chicago sociologists had no solid grasp of European sociology or of any city other than Chicago. However, Park and his colleagues’ work have shown that these allegations were unsubstantiated (Abbott 1997:1160; Burnet 1964:156–157).

Contrary to what some suggested, the Chicago School led by Park was not based on atheoretical empiricism, and it was neither completely quantitative nor completely ethnographic (Abbott 1997; Burnet 1964; House 1936; Nock 2004). Even though Park was trained as a journalist, he did not favor only ethnographic research; Chicago sociologists were more open to qualitative methods than some of the other sociologists of that era thought of them. This claim is documented in Floyd Nelson House’s *The Development of Sociology* (1936) and in Martin Bulmer’s book, *The Chicago School of Sociology* (1984).

As I noted previously, the Chicago School did not lack theory, and it was neither completely quantitative nor completely based on ethnography. Indeed, the Chicago School used mixed methods. In more recent decades, Bulmer (1981) suggested that some historians failed to record the true essence of the Chicago School; he considered that historians identified the Chicago School with ethnographic work more so than with quantitative methods, a more



accurate representation in his opinion. According to Bulmer, sociological historians “neglected” to document the quantitative tradition of Chicago (1984:151). Even when Bulmer took a different stance (on describing and defending the Chicago School) than that of Abbot (1997), Burnet (1964), or House (1936)—who argued that the Chicago School did not lack theory—he also alluded to the general openness of Ernest Burgess to use quantitative methods, and even stressed that Robert Park “was more open to quantitative methods than has often been assumed” (Bulmer 1984:153). Chicago publications from the 1920s and 1930s are the most verifiable evidence that the Chicago School was very well balanced methodologically and rich in theory.

One of the most relevant contributions to sociological theory of the Chicago School is the development of human ecology within the field of sociology. Robert Park and Ernest Burgess, both central figures of this school of thought, brought the multidisciplinary field of human ecology into sociology in the 1921 book *Introduction to the Science of Sociology*. Another sociologist from the Chicago School, Roderick McKenzie, helped solidify human ecology in sociology and drew important distinctions between human ecology in sociology and human ecology in other disciplines. A central distinctive point of human ecology in sociology, and an important aspect of this dissertation, is the concept of cultural evolution as a consequence of ecological processes such as invasion, dominance, and succession. The concept of cultural evolution was further developed by Park in his 1928 article “Human Migration and the Marginal Man.”

### *2.1.1 The Marginal Man*

The concept of the Marginal Man and its effect on cultural evolution are two of the principal concepts that will guide my research. Park (1928) considered that the Marginal Man participates in two cultural groups, not fully belonging to either of them. The epitome of the Marginal Man was the immigrant, a central figure and focal point of this dissertation.

Immigrants do not fully belong to their homelands after they leave, and they are never fully accepted and integrated in the host society. This means generally that immigrants belong to two distinct and often-conflicting societies, even though only partially. This duality frequently causes conflict in the mind of the Marginal Man; although immigrants usually want to keep celebrating their heritage, they also wish to fully participate in the host society's life, something that is often not possible to achieve. Park considered that immigrants were men and women living in a permanent transition-like state. The positive side of these transitions was that they allowed the individual to be freed from custom, and hence, to be able to develop new enterprises and associations in a new land. Since migrants often try to maintain an affiliation with their homelands, migrants typically find themselves marginalized, striving to live in two often-conflicting cultural groups. The internal conflict in the mind of marginal men and women often produces "hybrid" individuals who, at the aggregate level, are promoters of cultural change and "evolution." Migrations, then, are the original force that shapes societal change and cultural evolution. About migration and societal change, Park wrote the following:

There are no doubt periods of transition and crisis in the lives of most of us that are comparable with those which the immigrant experiences when he leaves home to seek his fortunes in a strange country. But in the case of the marginal man the period of crisis is relatively permanent. The result is that he tends to become a personality type. Ordinarily the marginal man is a mixed blood, like the Mulatto in the United States or the Eurasian in Asia, but that is apparently because the man of mixed blood is one who lives in two worlds, in both of which he is more or less of a stranger. The Christian convert in Asia or in Africa exhibits many if not most of the characteristics of the marginal man—the same spiritual instability, intensified self-consciousness, restlessness, and malaise.

It is in the mind of the marginal man that the moral turmoil which new cultural contacts occasion manifests itself in the most obvious forms. It is in the mind of the marginal man—where the changes and fusions of culture are going on—that we can best study the processes of civilization and of progress (Park 1928:893).

It is clear that when Park wrote about marginal individuals, he was not referring to vagrants, drifters, or paupers; he was referring to migrants, movers, and “mixed-bloods.” It is true that the former group is also marginalized, even though economically, not culturally. Park referred to cultural dislocation in his 1928 article. Paradoxically, cultural marginalization is expected to create internal conflict in the self of the “marginal man,” but it also generates cultural evolution when the disenfranchised establish contact and interact with the native population.

According to Park (1928), within a community of marginal men and women, cultural isolation unintentionally promotes more solid social bonds through an exalted sense of group belonging. Indeed, contemporary research provides evidence showing stronger community bonds in immigrant communities in the United States than in non-immigrant communities (Ballis 1987; Lee et al. 2001; Martinez and Valenzuela 2006; Martinez 2002; Sampson 2008; Stowell and Martinez 2009). According to Ballis, Robert Park and W.I. Thomas suggested that it is through participation in their new community that immigrants also fulfill their “need for recognition and self-esteem”(1987:548).

W. I. Thomas and his colleagues said that the fact that in general immigrants do not fully integrate in the social life of the host country implies that immigrants will not be respected unless their whole group is respected. Thomas<sup>5</sup> and Robert Park wrote that immigrants “who begin by deserting their groups end by attempting to improve the status of these groups—seeking to make something with which a man may be proud to identify himself” (Park and Miller 1921:143). Paradoxically, the cultural dislocation of immigrants “becomes, thus, perhaps the

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<sup>5</sup> The reference to W. I. Thomas as co-author is because Thomas did most of the work on this book but his name was removed from the book cover before publication and after personal scandal cost him his position at the University of Chicago (Stanley 2010).

most sincere source of nationalistic movements in America. To this extent, nationalistic movements represent an effort to increase participation in American life” (Park and Miller 1921:143–144). Before the introduction of the concept of the “marginal man,” Park and Burgess had already theorized about how cultural conflict (facilitated by immigration) can shape or change human communities.

### 2.1.2 *The City*

In 1925, Robert Park and Ernest Burgess published the very important book, *The City*, one of the most influential works in urban sociology and one of the classics in the discipline. *The City* contains many aspects or representations of the Chicago School in regards to urban sociology. This book is one of the most important pieces of literature of the Chicago School during the period of its most intense activity. In *The City*, Park and his colleagues attempted to study and conceptualize cities in holistic terms. Thus, a collection of individuals in an urban environment becomes a city, a social organization that can be measured in terms of ecological, economic, and industrial variables.

To Park, cities were more than the sum of its parts; as mentioned, cities are based on a collection of individuals, but cities also have a life of their own. “The city is rooted in the habits and customs of the people who inhabit it” (Park and Burgess 1925:4). As a result, cities have not only a physical organization but a moral one; the physical and the moral organizations of a city interact with and modify each other. In addition, physical structure and moral order are complementary to each other. Park and his colleagues (1925:2) considered that those elements that we usually regard as “the city,” i.e., its streets and railways or its dwellings and infrastructure, are mere artifacts. Artifacts only become part of the city when they are subject to human utilization. Hence, in order for a city to exist, a physical structure—natural and built—and a moral order must be in place.

The city is not only a geographical and an ecological unit, it is also an economic entity, and its economic organization is based on the division of labor. In order to understand city growth, then, we need to understand the multiplication of occupations and professions and their change in composition in a city. Park considered that economy influences physical environments in a way that promotes the residential segregation of disadvantaged groups. Businesses and industries seek advantageous locations that can attract privileged sectors of the population by developing upscale residential quarters. The poorer classes, consequently, are excluded from these areas due to the artificially elevated price of the land, and thus, they are segregated to the slums and run-down areas of the city.

To Park and the Chicago sociologists, the implications of living in the least desirable areas of a city go beyond not being able to have a luxurious metro lifestyle or not having easy access to upscale shopping and restaurants. In run-down areas, many negative factors alter the lifestyle of the most disadvantaged social classes. According to Park, in the slums the poorer classes are “unable to defend themselves from association with the derelict and vicious” (Park and Burgess 1925:6). Park’s reflection could as well have inspired the most notorious theory of another Chicago sociologist who was also one of the most influential criminologists of the 20<sup>th</sup> century, Edwin Sutherland. Sutherland coined the term “differential social organization” which, according to him, explained differences in crime rates across different social entities (Sutherland 1947:6–7). Sutherland’s idea of “differential social organization” was based on his Differential Association Theory, first introduced in the 1939 edition of his book *Principles of Criminology*. Differential Association Theory explained the process by which individuals learn criminal behavior by getting in contact with other persons in a process of communication (Akers and Sellers 2004:82), while “different social organization” referred to criminal behavior at the aggregate level and its causes.

Sutherland's theory was reworked by Robert Burgess and Ronald Akers, and in 1966 they published what would be known as Social Learning Theory (Burgess and Akers 1966). Social Learning Theory states that people's behavior (including criminal behavior) is learned within a social context. Thus, contextual positive and negative stimuli affect individual behavior. In Park's words, an unavoidable "association with the derelict and vicious" would most likely result in assimilation into a deviant subculture proper to the slums. A more elaborate explanation of the dynamics of social context and individual behavior can be found in *The City's* chapter entitled "Community Organization and Juvenile Delinquency" (cf., Park and Burgess 1925:99–112). This chapter was also written by Park.

Park considered that proximity and neighborly contact are the most essential forms of association, and that local interests and associations feed the character of neighborhoods or any political or social organization. Since they are based on local interest and own character, neighborhoods are also the fundamental unit of political control "under a system which makes residence the basis of participation in the government. In the social and political organization of the city [the neighborhood] is the smallest local unit." In other words, even when it may lack an official organization or structure, the neighborhood exists to express the local sentiment in regards to matters of local interest (Park and Burgess 1925:7). Consequently, neighborhoods that get organized to obtain commonly valued goods or services are more likely to succeed than others that cannot achieve the same level of organization. This is to say, disorganized neighborhoods will lack the political power to meet their goals.

### 2.1.3 *The Concentric Zone Theory*

It was in *The City* that Ernest Burgess (Park and Burgess 1925) described the five concentric zones that typically develop in large cities. These five areas often develop along with city growth as a result of the ecological processes of invasion, dominance, and succession that

Park and Burgess introduced in their book *Introduction to the Science of Sociology* (1921).

Burgess suggested that social and economic factors, particularly the division of labor, influence the ecological processes that shape and give own character to cities. The model that Burgess developed is known as the Concentric Zone Model and is often cited by urban criminologists and researchers of residential segregation of the Chicago tradition.

To Burgess, cities transcended their political boundaries. Put differently, the five concentric circles described by Burgess may span several cities and even states as defined by their political boundaries. Burgess considered that the advancements in transportation technology set the stage for the development of the concept of “the metropolitan area of the city.” With modern transportation infrastructure and technology, people had no longer to live in the same place where they worked. Burgess said that facility of transportation enabled “a business man to live in a suburb of Chicago and to work in the Loop, and his wife to shop at Marshall Field’s and attend grand opera in the Auditorium” (Park and Burgess 1925:49–50).

In the Concentric Zone Theory, cities would ideally expand radially from their central business district (CBD), i.e., the 1<sup>st</sup> zone, into 4 additional zones, each of them with distinct typical characteristics. The five zones identified by Burgess are: 1) “The Loop,” i.e., the central business district, 2) the “zone in transition,” 3) “the zone of workingmen’s homes,” i.e., the inner suburbs, 4) the “residential zone” of high-class apartment buildings or restricted districts of single-family dwellings, and 5) the “commuters’ zone,” which includes the outer suburbs and satellite cities (Park and Burgess 1925). Chicago sociologists theorized that the 4 concentric zones defined by Burgess developed around the CBD in expanding cities through consecutive series of processes of invasion and succession.

In the early stages of development of a city, the second area that often develops around the downtown or CBD, or the zone in transition, is typically “invaded” by businesses and

industries. Prior to the invasion by industries and businesses, “zones in transition” are typically used for housing. However, due to worsening living conditions caused by this area’s invasion, a third area develops around it. Workers who are displaced from the zone in transition typically settle in the areas adjacent to where the jobs are located. This way, the “working men” and their families can live in a better area than those from which they were displaced but still be within easy access to their jobs. Yet other residential areas of high-end apartments or exclusive (restricted) single family dwellings usually locate in a greater physical distance from the deteriorating zone in transition.

#### *2.1.4 Social Disorganization in the Concentric Zone Model*

One of the main concepts developed by the Chicago School of Sociology is social disorganization. Organization (or disorganization) as defined in Chicago’s Social Disorganization Theory refers to physical, economic, population, or familial aspects shared by the residents of a given area. In general, organized communities are more desirable to live in than are disorganized ones. Some commonly used indicators of social disorganization are poverty, residential instability/mobility, family disruption, unemployment, low education, young or single parenthood, large households, low property values, poorly resourced or performing schools, high density housing, and so forth. The basic premise is that “[...] social order, stability, and integration are conducive to conformity, while disorder and malintegration are conducive to crime and deviance” (Akers and Sellers 2004:159).

Criminologists of the Chicago School considered that the existence of high levels of poverty, residential instability, and other types of “disorganization” in urban areas, ultimately, were conducive to high crime. They observed that “disorganized” urban neighborhoods often experienced a breakdown in the social structure and institutions; this, and the inability to effectively apply informal social control measures ultimately resulted in higher crime than in the



“organized” areas of the city. Two instances of informal social control noted by them were parental supervision and expressions of disapproval by others towards deviant acts. Social disorganization, as defined by this theory, has been strongly and consistently associated with violence in classic and contemporary research (Almgren et al. 1998; Baller et al. 2001; Bursik and Grasmick 1993; Kubrin and Weitzer 2003; Park and Burgess 1925; Shaw and McKay 1942).

A key concept related to social disorganization is collective efficacy. It may be described as social cohesion among neighbors combined with their willingness to intervene on behalf of the common good (Sampson, Raudenbush, and Earls 1997). Sampson, Morenoff, and Earls argued that residents of neighborhoods with low collective efficacy “[...] lack the closeness and trust [...] to mobilize as a group and rid their street of troublemakers and disorder” (Sampson, Morenoff, and Earls 1999:635). These neighborhoods typically have higher crime rates than neighborhoods with high levels of collective efficacy. Residents in low crime neighborhoods typically share mutual values, have mutual trust, concerns for the public good, and provide pro-social feedback on behavior (Simons et al. 2005).

Taylor summarizes this issue succinctly, as follows:

...if collective efficacy is high in a locale, residents will work together on common, neighborhood-wide issues, will get along somewhat with one another, and will take steps to supervise activities of youth or teens taking place in the immediate locale. Collective efficacy refers to [...] organizational participation [...], informal social control [...], and local social ties based on physical proximity (2001:129).

Concentric Zone Theory and Social Disorganization theory, two important contributions of the Chicago School, are often applied simultaneously. Burgess observed that social problems, such as delinquency, were found in their most acute forms in the largest American cities. Criminality, hence, seemed to be a phenomenon related to city growth. The Concentric Zone Model’s zone in transition was often considered to be the most problematic of the zones and

subjected to “disorder” in the city. This area was also the area where immigrants tended to settle after arriving in a large city. Burgess added that the ratio of the foreign to native born population increased with the growth of a city, and that this—among other factors—profoundly disrupted existing social structures, which led to crime (Park and Burgess 1925:47).

Park’s ecological theories were added to the mix to explain the dynamics of disorganization and crime. As an example, according to Park and Burgess, immigrants usually settle in highly disorganized areas near the center of a city (i.e., the Zone in Transition). Eventually, these immigrants—and/or their descendants—may well “invade” neighboring areas (i.e., the zone of workingmen’s homes) until they become the dominant group. The areas that are being left by their residents typically deteriorate faster than the rest. It is in these kinds of areas where crime and deviance are most likely to be found, according to the Chicago sociologists. This would be an example of a successful ecological process of invasion, dominance, and succession (Miller, Schreck, and Tewksbury 2011).

When Burgess described city expansion, he emphasized that every new “circle” added to a city was the result of a successful ecological cycle of invasion, dominance, and succession, and that each successful ecological cycle contributed to the deterioration of the invaded area. Burgess considered that this process and the resulting city patterns were typical of American cities. About Chicago, Burgess wrote the following: “In the area of deterioration encircling the central business section are always to be found the so-called ‘slums’ and ‘bad lands,’ with their submerged regions of poverty, degradation, and disease, and their underworlds of crime and vice” (Park and Burgess 1925:54–55).

In the Chicago of the 1920s, surrounding the CBD and the zone in transition (or the area in deterioration), developed a “better” area, the “zone of workingmen’s homes.” Even when the CBD, the zone in transition, and the zone of workingmen’s homes were all generally inhabited

by factory workers, workers in the third area were considered to be the “skilled and thrifty” (Park and Burgess 1925:56). This area was considered a region of escape from the slum for immigrants, and typically the “immigrants” there were technically not immigrants, but members of the immigrant second generation. This area represented the next logical move for the “aspiring Ghetto family.” In turn, longtime residents of the third concentric zone looked eagerly to the fourth zone of the concentric model, the “residential zone,” with its big hotels and fancy apartment complexes and ample single-family dwellings.

It is important to stress that Burgess did not consider immigrants as directly responsible for the “high crime and vice” that occurred in the areas where they settled; he blamed the rapid and “unnatural” population growth of a city that the immigrants promoted. Natural population growth in a city would happen if a city were closed to migration; that is to say, a city’s population and potential expansion would be determined only by its births and deaths. It was considered that the influx of immigrants to their new settlement areas most likely resulted in the disruption of the existing local social organization and rapid urban expansion. Burgess considered that rapid urban expansion was typically accompanied by “excessive increases in disease, crime, disorder, vice, insanity, and suicide, [all of them] rough indexes of social disorganization” (Park and Burgess 1925:57). About immigrants, Burgess wrote the following:

Their invasion of the city has the effect of a tidal wave inundating first the immigrant colonies, the ports of first entry, dislodging thousands of inhabitants who overflow into the next zone, and so on and on until the momentum of the wave has spent its force on the last urban zone. The whole effect is to speed up expansion, to speed up industry, to speed up the “junking” process in the area of deterioration (II) [the Zone in Transition] (Park and Burgess 1925:57–58).

One of the main indicators of social disorganization according to sociologists of the Chicago School is (residential) mobility. Residential instability may be the most commonly

measure of population mobility and is indicated by the number of migrants or residents coming and leaving. Thus, an area with a relatively high proportion of “new” residents will have high mobility and, as a consequence, high social disorganization and crime rates. Chicago scholars argued that mobility was demoralizing for individuals since it caused a lack of consistency in their daily lives. Given that consistency is essential to social control, where mobility is the greatest, “there develop areas of demoralization, of promiscuity, and of vice” (Park and Burgess 1925:59).

In studies of Chicago in the early 20<sup>th</sup> century, Park and his colleagues found that areas of mobility were also areas of “juvenile delinquency, boys’ gangs, crime, poverty, wife desertion, divorce, abandoned infants, [and] vice” (Park and Burgess 1925:59). In more recent research, Sampson (1986) concluded that high crime rates were caused by the reduced capacity of residents to exercise informal social control often found in disorganized areas. An important indicator correlated to the inability to exercise informal social control is the proportion of “broken” families in the area. The critical issue was living in an area where a high proportion of households were headed by single parents, since they are less able to provide effective supervision of their children (Cullen and Agnew 2006:89).

## **2.2 Residential Segregation**

Residential segregation is the physical, i.e., spatial, separation of two or more groups of people in the different neighborhoods or areas of a city. According to Burgess, residential segregation in large US cities may be generated, in part, because of ecological processes driven by the division of labor and cultural isolation. Occupational selection often takes place by race and ethnicity, or what the Chicago sociologists referred to as nationality. Burgess noted this was due to differences in “racial temperament.” This resulted, he argued, in the emergence of the Irish policeman, the Greek ice-cream parlors, the Chinese laundries, the “Negro” porters, and the

Belgian janitors—among others—(Park and Burgess 1925:57). The division of labor in the city illustrates the differentiation. Thus, a neighborhood will attract individuals who are similar to those already living there, which will differentiate that neighborhood even more. Ethnicity, occupation, and place of residence have been traditionally interrelated; examples of this are the Meatpacking District in Manhattan, where the butchers were typically Blacks from the South or Jews who had survived the Holocaust, and the Hull House Neighborhood in Chicago, which became notorious for its Italian pastry shops. In the opinion of Burgess, ethnic or occupational enclaves “tend to accentuate certain traits, to attract and develop their kind of individuals, and so to become further differentiated” (Park and Burgess 1925:56). Logically, as time advances, a segregated neighborhood and its residents will become gradually more differentiated from the others. This will be sustained until the neighborhood is “invaded” by a new group and the residents are displaced to a different area, that is, until another successful ecological cycle of invasion, dominance, and succession takes place.

Places of high residential transiency have traditionally been considered as disorganized, according to Social Disorganization Theory. Since the establishment of the Chicago School, extensive research has been conducted focusing on the topics of social disorganization and crime (Bellair and McNulty 2005; Cleveland 2003; Sampson et al. 1999; Sampson 1986; Stretesky, Schuck, and Hogan 2004). However, more recently, it has been found that residential instability is not a consistent predictor of crime (Stowell and Martinez 2009), as suggested by Chicago scholars; I will elaborate on this point in more detail later. Other researchers have concluded that residential segregation is a strong and consistent predictor of crime in neighborhoods (Bjerk 2006; Feldmeyer 2010; Holloway and McNulty 2003; Krivo, Peterson, and Kuhl 2009; Massey 1995), but not totally agreed with Chicago sociologists about the ways the dynamics of segregation and crime work. That is, they have noted that residential segregation of immigrants

or a high immigrant influx does not necessarily increase crime in areas where they settle (Lee et al. 2001; Martinez and Valenzuela 2006; Martinez 2002; Sampson 2008; Stowell and Martinez 2009).

Latino immigrant neighborhoods or *barrios* are areas of residential segregation by definition. In sociological research, however, theoretical and methodological issues need to be considered when conducting segregation studies. One of the first steps for researchers is to define and operationalize segregation. Residential segregation is not only difficult to measure; it is sometimes hard to define. Massey and Denton's (1988) classic article on the "Dimensions of Segregation" is a required reading for anyone engaging in residential segregation research. In that article, the authors included a compilation of the most common residential segregation indices and used factor analysis to classify them into five different constructs or "dimensions" of segregation, i.e., evenness, concentration, centralization, exposure, and clustering.

Massey and Denton (1988) did not intend to declare one index or "dimension" as the best measure of segregation or deem one "dimension" of segregation as conceptually superior to the rest. Instead they noted that several measures of segregation may be used when engaging in segregation research, each representing a different dimension. Depending on the scope and theoretical framework of a given study, one or more dimensions of residential segregation might, and should, be used.

Several books and articles have addressed the multiple ways of measuring residential segregation (Iceland, Weinberg, and Steinmetz 2002; Massey and Denton 1988; Reardon and Firebaugh 2002; Taeuber and Taeuber 1965). These often serve as reference manuals on how to calculate the most common indices of segregation. A prominent study is that of Iceland, Weinberg, and Steinmetz (2002) of American segregation trends. Besides analyzing segregation trends in the US, Iceland and his colleagues also elaborated on Massey and Denton's (1988)

penta-dimensional conceptualization of residential segregation. In this dissertation I will focus on two of the dimensions, namely, evenness and exposure, and will provide my rationale and justification for doing so.

### *2.2.1 Racial and Ethnic Differences in Residential Segregation Patterns*

Research has shown that socioeconomic status (SES) is a major factor determining one's neighborhood location. However, middle-class Blacks often live in areas below their SES (Charles 2000). For Blacks, living in a segregated community usually comes with a series of negative consequences that their non-Black peers of similar wealth and income do not have to face.

In general, residential segregation affects Black communities disproportionately. Massey and Denton (1989) introduced the concept of hyper-segregation to describe the situation of African-American communities in the United States. They found that Blacks are especially disadvantaged when compared to other minorities, namely Hispanics and Asians. Hispanics, Asians, and Blacks, are residentially segregated, yet the segregation dynamics are different for these three groups. The concept of hyper-segregation occurs when a group is highly segregated across all five of the dimensions of segregation, i.e., evenness, exposure, centralization, concentration, and clustering. Even when Hispanics were more segregated than Asians, Massey and Denton (1989) found no evidence that Hispanics were residentially segregated across multiple dimensions simultaneously, as in the case of Blacks.

Even though segregation has declined in the US, the general trend has changed little in the last decades. From 1980 to 2000, Blacks were the most segregated racial/ethnic group, while Asians and Hispanics appeared to be only moderately segregated (Charles 2003). In addition, members of the later groups have been able to easily integrate into White communities with increases in their SES. It is noteworthy that, from 1980 to 2000, Hispanic segregation increased

in places where immigration from Hispanic countries increased, i.e., high Hispanic immigrant-to-native ratios were associated with higher Hispanic segregation. Residential segregation is typically minimal with small groups, but it often increases with larger minority groups. This is apparently due to group settlement patterns (i.e., chain migration).

Iceland and Nelson (2008) studied Hispanic segregation and found that, even when Hispanics were not segregated to the same extent as Blacks, segregation was still significant. In addition, they found significant differences across the different Hispanic groups. Race and nativity status (i.e., native/foreign-born) were two of the variables that strongly predicted Hispanic segregation. Black and immigrant Hispanics were more segregated than their non-Black and native counterparts. Iceland and his colleagues (2002) added that Hispanic segregation decreased between 1980 and 2000. However, Logan (2003) found that Black segregation decreased for the same time period while Hispanic and Asian segregation remained moderate. Logan (2003) has declared that Hispanic segregation even increased in some places with rapid Hispanic growth, a finding consistent with the research of Charles (2003). Massey and Denton (1987) also found that, in the 1970s, Hispanic segregation grew in places with rapid Hispanic population increases.

### *2.2.2 Causes of Residential Segregation*

Great methodological improvements for the study of residential segregation were developed in the second half of the 20<sup>th</sup> Century. Nevertheless, earlier literature on residential segregation did not really address the causes of segregation. Early researchers of residential segregation often assumed that segregation was mainly a Black-White phenomenon attributed to the housing market; it was a long held assumption that residential segregation patterns were the result of economic differences. However, there is more to the residential segregation of



minorities. The major role of residential segregation is the perpetuation of the status-quo, as Charles (2003) concluded.

Developments in the segregation literature have revealed that there are broader causal factors behind residential segregation. Charles (2000) analyzed data on residential preferences of over 4,000 adults in Los Angeles, a multiethnic metropolis. An important contribution of this study was the inclusion of variables beyond the racial stereotypes. Some of his variables were parenting, homeownership, and the perception of social class. Charles did not restrict his analysis to measures of wealth or income. He also used the above variables to assess the effects on preferences for same-race neighbors. As expected, race continued to be a significant predictor of neighborhood (or neighbor) preference, and Blacks continued to be consistently considered as the least desired group to live with in a neighborhood.

Other studies (Farley, Fielding, and Krysan 1997; Logan, Zhang, and Alba 2002) have researched the residential preferences of non-Hispanic Blacks and non-Hispanic Whites, and concluded that residential preferences interact with economic factors and discrimination in shaping residential segregation patterns. This finding might also apply to immigrants, and racial and ethnic minorities. There is evidence to suggest that the lack of willingness to integrate across racial lines in a neighborhood is not due only to social class. Indeed, in some cases, Black-White segregation appears to exist irrespective of socioeconomic status (Charles 2000). Furthermore, this appears not to be the case with Latinos and Asians, groups which appear to integrate in White neighborhoods at higher rates as their SES increases. In other words, the return that Blacks receive for an increased unit of SES is lower than that of Asians or Latinos. This finding makes the explanation of segregation due to SES-only unlikely to be true, and suggests that patterns of residential segregation are caused by complex racial, social, and economic factors.

Given that, the causes of residential segregation seem unlikely to be only related to SES, several alternative theories have emerged. In regards to residential segregation, two main theories have emerged, Spatial Assimilation and Place Stratification.

Spatial Assimilation Theory attributes minority residential segregation to socioeconomic factors. “Racial group differences in socioeconomic status characteristics are well documented. On average, Blacks and Hispanics complete fewer years of school and are concentrated in lower-status occupations, earn less income, and accumulate less wealth compared to whites” (Charles 2003:176). Hence, it is understandable why groups with overall low SES typically concentrate in disadvantaged areas. However, even when it is shown that income and wealth are two of the main predictors of place of residence, this does not explain the totality of Black (Charles 2000) and other types of ethnic segregation (Logan et al. 2002). Logan and his colleagues (2002) refer to ethnic neighborhoods as types of segregated communities that are the result of choice rather than constraint. In other words, some ethnic or racial minorities might look to live in a minority neighborhood not only because they have no access to the upscale real estate market, but because minorities might feel more comfortable or safer (due to a suspected animosity towards them if they move to a White neighborhood) in a segregated neighborhood of their own race or ethnicity. This might be especially true with newcomers to this country (Logan et al. 2002:299). Logan and his colleagues (2002) considered that residential segregation across ethnic lines is more complex to study than it seems. Sometimes, ethnic neighborhoods are preferred by middle class members of a minority with wider (more expensive) market options. When residential segregation is not the result of economic constraints, the role that residential preferences and SES play should be reevaluated. “For some, the ethnic neighborhood is a starting point; for others it might be a favored destination” (Logan et al. 2002:300).

Place Stratification Theory puts more emphasis on racial or ethnic discrimination as a cause of residential segregation. Place Stratification theory notes that “[t]he emergence of racially separate neighborhoods [result] from a combination of individual—and institutional—level actions. Scholars generally agree that all levels of government, as well as the real estate, lending, and construction industries, played critical roles in creating and maintaining a dual housing market that [constrains] the mobility options of blacks” (Charles 2003:182). However, as Iceland et al. (Iceland et al. 2002:3) have noted, segregation might stem from voluntary choices of people willing to live with others of their same racial or ethnic group, not only from discrimination in the housing market. Logan and his colleagues (2002) have agreed that residential segregation sometimes originates because of residents’ preferences without the influence of economic constraints, e.g., immigrant enclaves and ethnic neighborhoods.

### *2.2.3 Residential Segregation and Crime*

Many determinants of quality of life depend on location. For example, the quality of public schools and other services like police or fire protection can vary greatly from one neighborhood to the next. Our residences and our workplaces may be better connected depending on the infrastructure set in the neighborhoods. The amount and types of crime to which we are exposed are correlated with the socioeconomic and geographic characteristics of the neighborhoods. Stated succinctly, residents of segregated minority neighborhoods tend to be exposed to more negative environments and to receive subpar public services. One of the most important consequences of residential segregation, and the main focus of this dissertation, is the higher exposure to crime of segregated populations compared to nonsegregated neighborhoods.

Charles (2003) has stressed that the lack of neighborhood integration across racial lines hinders good neighborhood relations. Indeed, residential segregation hinders the social mobility of those segregated to the less desirable areas of a city and to affect their social and economic

relations. As I will discuss below, the multiple disadvantages associated with residential segregation have been shown to be related with high crime rates in the neighborhoods. Moreover, residential segregation and crime set off a chain of events that ultimately result in a segregation-crime vicious cycle. Massey (1995) explained how residential segregation is both a cause and effect of high crime and poor economic conditions; he considered that without integration, violence is unlikely to decrease, and without lower crime rates, integration is unlikely to occur. This occurs in part because of Whites benefiting from residential segregation, i.e., low crime in White neighborhoods and high crime in Black and Latino neighborhoods. Massey (1995) and Charles (2003) agreed that residential segregation helps perpetuate the status quo.

High crime is one of the main negative effects of residential segregation, and there is a wealth of literature that links segregation and crime among all racial and ethnic groups (Bjerk 2006; Feldmeyer 2010; Holloway and McNulty 2003; Krivo et al. 2009; Massey 1995; O'Flaherty and Sethi 2007). Some studies have focused on Black violence and segregation and have stressed the disproportionate high return of violence, particularly homicides, for their level of segregation when compared to other groups (Eitle 2009; Lee and Ousey 2005; Peterson and Krivo 1993; Shihadeh and Flynn 1996; Shihadeh and Maume 1997). Other studies have focused on the types of crimes promoted by segregation. Bjerk (2006) observed that even though the segregation of minorities seems to be correlated with all kinds of crimes, the strength and direction of that correlation is not entirely clear. However, he noted that segregation had its greatest impact on violent crimes. But some segregated neighborhoods had rates of some property crimes that were lower than average. Bjerk (2006) considered that assuming the existence of fewer attractive targets in minority areas might well explain the lower-than-expected rates of property crimes in the segregated minority areas.

There is research that has analyzed the linkage of different dimensions of segregation (alone or in combination) and crime for all races, and, in general, link high segregation with high crime (Eitle 2009; Feldmeyer 2010; Shihadeh and Flynn 1996; Shihadeh and Maume 1997). However, there have been some exceptions to this conclusion. Burton (2004) found that even when social exposure was a strong predictor of victimization among Latinos, residential segregation measured in terms of evenness was not related significantly with crime. According to Eitle (2009), the negative effects of segregation tend to be magnified when multiple dimensions of segregation act simultaneously. As an example, hyper-segregation, as defined by Massey and Denton (1989), interacts with crime to boost homicide rates in Black communities, but not in other communities (Eitle 2009).

In general, the correlation between residential segregation and crime has been found to exist at different levels of analysis, e.g., individual, neighborhood, and city (Krivo et al. 2009). Typically, minority residents are at risk of witnessing higher crime and experience higher chances of victimization in the neighborhoods where they typically reside. However, this is not the case with Latinos, particularly with first-generation Latino immigrants. This is one of the features of the Latino Paradox, a topic to which I now turn.

### **2.3 The Latino Epidemiological and Criminological Paradoxes**

For the past several decades, demographers have noted that Hispanics have death rates much lower than those of African Americans and on par with—and sometimes lower than—those of Whites. This is known as the Hispanic Epidemiological Paradox. It is referred to as a paradox because given the similar and low socioeconomic status of Hispanics and African Americans, one would expect their levels of mortality to be similar; but they are not similar, they are very different. Several explanations have been offered to account for the paradox, and they may be subsumed into three groups, namely, data artifacts, migration effects, and cultural effects

(Bradshaw and Liese 1991; Markides and Coreil 1986; Palloni and Morenoff 2001; Rogers et al. 1996; Rogers, Hummer, and Nam 2000).

Markides and Coreil (1986) first coined the term “Epidemiological Paradox” roughly thirty years ago while doing research about Hispanics in the American Southwest; they concluded that Hispanics residing in that area, mainly Mexicans and Mexican-Americans, shared some similarities on health indicators (i.e., infant mortality, life expectancy, mortality from different kind of diseases, et cetera) with non-Hispanic Whites. This set of findings were considered paradoxical since Hispanic socioeconomic indicators (e.g., income, unemployment rates, and occupational characteristics) resembled those of Blacks more than those of Whites, but health indicators resembled more those of Whites. The hypotheses that Markides and Coreil (1986) offered to explain the Hispanic health advantage were:

- 1) Selective migration: people with bad health are less likely to migrate. Hence, an influx of healthy immigrants to the country might partially account for the health advantage of Latinos.
- 2) Cultural factors: these might include better dietary practices or those practices that favor reproductive success and a favorable weight at birth (a family system that encourages better care of mothers and children); Stronger familial and community ties contribute to the Latino health advantage since they are protective against stress-related morbidity.
- 3) Genetic heritage: Native-American ancestry among Hispanics might account for more-favorable cancer patterns of different kinds.

Markides and Coreil (1986) concluded that it was unlikely that the Hispanic “paradoxical” health advantage was the result of data artifacts. However, other authors have considered the Epidemiological Paradox to be the result of inaccurate data (Palloni and Arias 2004; Palloni and Morenoff 2001). Even though Palloni and Morenoff (2001) admitted that migration is selective of people in better health (i.e., selective migration), they considered that selective migration was not sufficient to offset the negative effects of socioeconomic

disadvantage often experienced by Hispanics. Instead, they attributed the “misleading” findings on Hispanic mortality to reporting errors.

Palloni and his colleagues (Palloni and Arias 2004; Palloni and Morenoff 2001) considered that; over-reporting of births, undercounting of deaths, and systematic “exaggeration” of age among Hispanics; produced an artificial health advantage among the Latino population. They considered that many of the deaths of US-born Hispanic infants are not recorded in the US, because mothers who come to the US with the specific purpose of giving birth, often return with their infants to their home countries shortly after delivering. In a similar way, Palloni and Arias (2004) attributed the “Hispanic Paradox” to a return migrant effect; this effect is called the “salmon bias” and suggests that immigrants (particularly Mexicans) return to their homeland in late life (due to poor physical health or personal reasons). Returning immigrants eventually die in their home countries and, hence, their deaths are not counted in the United States. As a result, the under-count of Latino deaths produces an artificial increase in Latino life expectancy statistics and a fallacious mortality paradox (according to the authors).

Even though undercount of deaths and over-reporting of births are data limitations that could lead researchers to suggest that the “Latino Paradox” is fallacious, proponents of the Latino Paradox anticipated this and provided further support for the existence of a favorable mortality situation of Hispanics. There is evidence that Hispanics have lower incidence of hypertension, mental illness, cardiovascular disease, and cancer than the rest of the population (Abraido-lanza et al. 1999; Markides and Coreil 1986). This is something that cannot be explained with the “over-reporting of births” or the “salmon bias” arguments.

There is a parallel paradox in criminology known as the Hispanic Criminological Paradox. It is based on research showing that criminal offending among Latinos and crime rates in Latino communities (particularly those with a high concentration of immigrants) do not

resemble those of other minorities. The literature consistently links levels of segregation and levels of social and economic disadvantage with levels of crime. But this relationship is not as strong among Hispanics, particularly Hispanic immigrants, as it is among African Americans; yet, these two social groups are similar in terms of socioeconomic disadvantages and levels of segregation. Hence, we have another paradox, namely, the Latino Criminological Paradox.

The debate over immigration to the United States being responsible for high crime is not new, and it has not always included Hispanics. Since 1882, concerns over the suspected criminal proneness of the foreign-born have led the federal government to regulate immigration (National Commission on Law Observance and Enforcement, 1931 as cited in Moehling and Piehl 2009:739) and to label immigrants as a group that needs controlling. The idea of the criminal immigrant guided American immigration policy for many decades. However, the research used to support this stereotype through the early 20th century suffered from aggregation bias (i.e., the incorrect assumption that what is true for the group, is true for the individual). Shaw and McKay (1942) eventually pointed that immigrants had restricted residential options owing to their low SES, but not necessarily high crime proneness.

Some of the first criminological studies (early 20<sup>th</sup> century) that found evidence to suggest that non-native populations were more crime prone were based on faulty and incorrect reasoning; their inferences committed the so-called ecological fallacy (cf., Robinson 1950). Their conclusions about individual behavior were drawn from aggregate data. This is also known as aggregation bias and was a common mistake in this literature. In the 1940s, Shaw and McKay (1942) challenged the conception of non-native population being criminal; they attributed this generalized perception to a fallacious conclusion and a wrongful interpretation of aggregate data (correlation does not mean causation). They observed that immigrants tended to settle in high-



crime areas by necessity; this could lead to a spurious relationship at the aggregate level between foreign-born populations and crime rates.

Decades of empirical studies have supported the apparent causal correlation between economic disadvantage and high crime (Cleveland 2003; Daly, Wilson, and Vasdev 2001; Gordon et al. 2004; Griffiths and Chavez 2004; Kubrin and Weitzer 2003; Lawton, Taylor, and Luongo 2005; Messner, Raffalovich, and Shrock 2002; Morenoff, Sampson, and Raudenbush 2001; Stretesky et al. 2004; Wikstrom and Loeber 2000). There is consensus in the criminological community that economic disadvantage is positively correlated to street crime and violence. Therefore, it is often considered that the more severe the disadvantage, the higher the rates of street crime (as opposed to white-collar crime) and violence. There is evidence that this correlation holds at the individual and higher levels of analysis, e.g., persons, neighborhoods, census tracts, city areas, and even whole metropolitan areas and countries.

However, and this is the important point, research shows that the correlation between minority concentration (an indicator of segregation and concentrated disadvantage) and crime rates does not hold equally for all minority groups even if they share similar levels of disadvantage. There is abundant evidence that Latino immigrants have low crime proneness. This low crime proneness is considered “paradoxical,” given the low SES of immigrants. Furthermore, research shows that the presence of Latino immigrants does not necessarily increase crime in the places where they are settled, and that indeed, high levels of Latino immigrant concentration and segregation might well be protective against crime (Lee et al. 2001; Martinez and Valenzuela 2006; Martinez 2002; Sampson 2008; Stowell and Martinez 2009). This is known as the aforementioned Latino Criminological Paradox, a major focus of my dissertation.

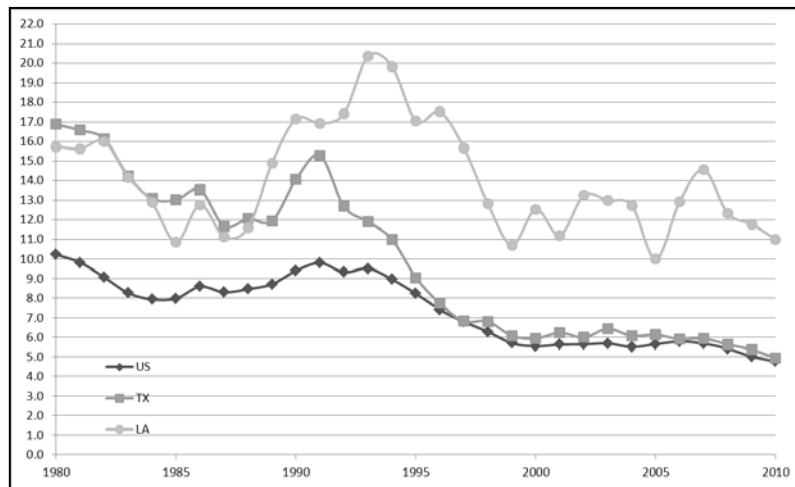
In addition to being economically disadvantaged, Latino populations are also disproportionately young (U.S. Census Bureau 2010b, 2010c), a fact which also places them more so in the “risk” category for crime. Developmental criminology has proposed a direct causal relationship between age and criminal behavior (Hirschi and Gottfredson 1983). Developmental perspectives are useful when explaining juvenile delinquency and high crime incidence in neighborhoods with a high male youth population (Bellair and McNulty 2005; Cleveland 2003; Wikstrom and Loeber 2000). This characteristic is shared by many immigrant neighborhoods. As an example, official statistics from México (the largest immigrant-sending country) show that Mexicans leaving their homeland to settle in the American Southwest are typically males between 15 to 39 years old (*Consejo Nacional de Población* 2012). Given the demographic characteristics of Latino communities, findings in the Latino Paradox of Crime literature also challenge developmental criminology. Put differently, Latino communities are not only, in general, socially and economically disadvantaged, but also young and with an overrepresentation of males, but they are a low risk for crime.

The Latino Criminological Paradox also defies conclusions based on various aspects of Social Disorganization theory and Burgess’ Concentric Zone Theory, including the crime-producing effects of immigration that have long been assumed to be true. Recall that, while Burgess (Park and Burgess 1925) did not directly blame immigrants for crime, he considered that excessive immigration in a city disrupted the organization of existing communities and tampered with the “natural” growth of cities. According to Burgess, both the disruption and alteration of natural growth increased crime and were reflected in high residential instability and immigrant-to-native ratios.

Research now indicates that contrary to the hypothesis of Burgess and Social Disorganization theory, the decline in homicide rates experienced in the US during the 1980s

and 1990s may indeed be the result of increased immigration from Latin-American countries (Sampson 2008; Wadsworth 2010).

**Figure 1** Homicides per 100,000 people in the US, Texas, and Louisiana: 1978-2002  
Source: Bureau of Justice Statistics

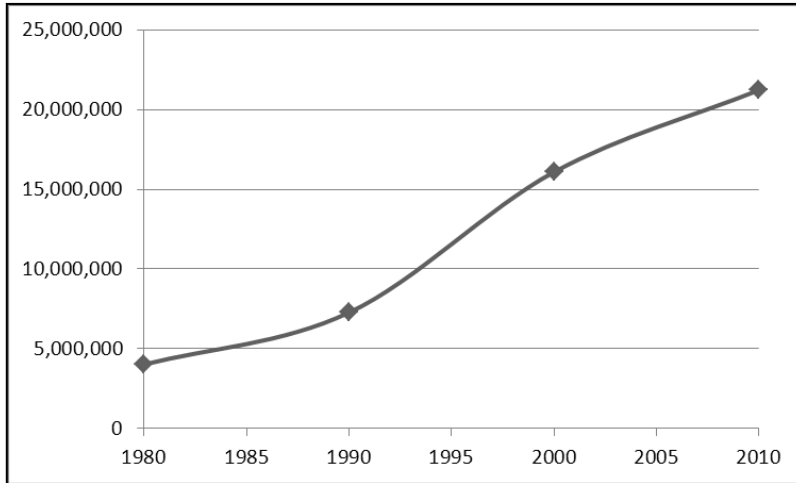


I show in Figures 1 (Bureau of Justice Statistics 2011) and 2 (U.S. Census Bureau 1980, 1990, 2000, 2010a) the relationship between Latino immigration and homicides. Figure 1 displays the declining trend in homicide rates in the US, Texas, and Louisiana. Texas has traditionally been one of the largest Latino immigrant-receiving states, while Louisiana has never been a traditional destination for Latinos. It can be noticed in Figure 1 that the homicide rates of the US and Texas start to sharply decline in the early 1990s; in this same decade, the Latino immigrant population grew by 121 percent, the largest proportional growth that Latino immigrants have experienced in a decade. Conversely, Louisiana's homicide rates remain, at all times, higher than the national average as well as the homicide rates of Texas, and they almost plateau from 1990 to 2010. Louisiana's homicide rates were roughly the same in 1985 and in 2010, while Texas' 2010 rate was nearly one fifth its 1985 rate. Figure 2 shows that the Latino

“immigration boom” that started in the late 1980s coincided with the period of sharpest decline in homicide rates in the United States.

**Figure 2** US Residents Born in Latin America: 1980-2010

Sources: US Census Bureau's 1980 Census' STF 4Pa; 1990 Census' STF 4a; 2000 Census' SF3; 2010 ACS 1-year estimate.



Studies have been conducted at the individual level (Sampson, 2008), the neighborhood level (Stowell and Martinez 2009), and the city level (Wadsworth 2010) with similar findings. Namely, Latinos have low crime proneness and Latino immigration does not seem to increase crime at the aggregate level. Nevertheless, studies at higher levels of analysis have encountered some limitations. For example, Wadsworth (Wadsworth 2010:550) acknowledged that one of the limitations of his study of various US cities was that he did not include data at the neighborhood or individual levels, so the dynamics of Latino immigrant concentration (or segregation) and crime were not examined. He concluded, though, that immigration from Latin countries contributed to the declining rates and changing patterns of homicide and robbery in US cities with a population of at least 50,000 people.

Sampson (2008) has also attributed the decline in violent crime in the US to increased immigration from Latin countries. Sampson's study was longitudinal and was conducted at the

individual level of analysis. However, he emphasized the importance of common characteristics often shared by immigrants due to selective migration, i.e., “motivation to work, ambition, and a desire not to be deported” (Sampson 2008:30). Dinovitzer, Hagan, and Levi’s (2009:362) study adds to the selective migration argument by declaring that commitment to education was a key mechanism that reduced illegalities among immigrant Hispanic youths in Canada. Despite this small yet important body of research, the Latino Paradox research has not been widely replicated with non-Latino immigrant groups; however, the positive traits that make Hispanic immigrants less crime prone than their native counterparts seem to be shared by all immigrants in general, not only Latinos. To illustrate, Kao and Tienda (1995) found that, in general, Chinese immigrants to the US remained committed to their aspirations of “conventional success” because they considered that, in spite of being part of the low socio-economic strata, they had better opportunities in the US than in their home country. And Sampson (2008:29) has stated that positive immigrant traits observed in Latino immigrants are also observed in all kinds of non-Hispanic White and Black immigrants.

It is important to notice, however, that the first-generation immigrant low crime proneness is apparently diluted with each subsequent generation in the United States (Sampson 2008:30). Research suggests that Mexican immigrants experience less violent occurrences than their native-born counterparts (Sampson and Bean 2006). Martinez, Stowell and Cancino (2008:6) have hypothesized that in cities such as San Antonio, where Mexican-Americans have gained an important presence in politics and managerial positions-and overall a higher SES- over generations, the generational diffusion effect either does not seem to apply or the process is slower. An interesting finding in the Epidemiological Paradox literature is that the health advantage of Latinos likewise seems to dilute with each subsequent generation in the US (Abraido-lanza et al. 1999; Markides and Coreil 1986; Palloni and Arias 2004).

The Latino Paradox of Crime and its generational diffusion effect also extend to other behaviors considered as antisocial. For example, Vega and Gil (1998) and Akins, Mosher, Smith, and Gauthier (2008) found that, paradoxically, drug abuse among Latino immigrants tends to gradually increase with every generation in the US. Acculturation seems to promote the diffusion of the positive traits observed in first-generation immigrants. Surprisingly, this has not been observed in countries other than the United States (Akins et al. 2008; Gailly 1997; Hjern 2001; Kahn and Fua 1995; Schiff et al. n.d.; Turner et al. 2006). From the literature on the Latino Paradox, it can be said, as concluded by Hagan and Palloni (1999), that acculturation rather than immigration appears to have a causal relationship with crime in the United States.

Stowell and Martinez (2009:317) found that, even when social and economic deprivation are two of the strongest predictors of violence at the neighborhood level, concentrated Latino immigrant populations seem to be protected against violent crimes in Miami neighborhoods, one of the most important entry ports to the country. They stressed that, contrary to the tenets of the Burgess hypothesis and Social Disorganization theory, indicators of residential instability were not at all consistent in predicting crime in Miami (Stowell and Martinez 2009:317). Indeed, empirical evidence shows that the Hispanic Criminological Paradox works best at the most important immigrant entry points to the country (Shihadeh and Barranco 2010).

“Paradoxically,” Martinez, Rosenfeld, and Mares found that drug activity and violent crime (as measured by rates of aggravated assault and robbery) in Miami were more prevalent, not in disadvantaged immigrant neighborhoods, but “in neighborhoods with low rates of immigration, [and] less linguistic isolation and ethnic heterogeneity” (Martínez et al. 2008:3). In another study, Martinez, Nielsen, and Lee (2003) found no significant differences between levels of immigration and homicide offending rates for persons from the same country with different SES, i.e., Mariel Cubans and higher SES Cuban immigrants. They found that Mariel Cubans –a

group that has been commonly singled out as being particularly crime prone- had similar offending rates when compared to native groups in Miami and the Cubans from earlier immigration waves, i.e., wealthier and Whiter immigrants from the post-Cuban Revolution era.

Even when researchers such as Krivo and Peterson (2009) found an aggregate-level significant positive relationship between the segregation of minorities and crime rates, immigrant status by itself was not found to be related to higher criminal offending when looking at individual-level data. Researchers who have found a positive correlation between immigrant concentration and crime have, in general, used larger units of analysis, i.e., census tracts and zip codes, as opposed to smaller units to define *barrios*. Thus, it may be stated, according to the paradox, that in general immigrants are exposed to higher crime rates than the majority group, but this does not necessarily mean that they themselves are engaging in crime. It is also important to stress that aggregate level studies showing the increased exposure of immigrants to high levels of crime do not either necessarily mean that immigrants are at a greater risk of being victimized.

Research pertaining to the Latino Paradox is, in general, consistent across different levels (individual and aggregate) and methodologies. Logistic regression models for the years 2000 to 2002 have found that non-citizens (a rough proxy for immigration) were “15% less likely than citizens to be arrested for property crimes; they were also less likely to be arrested for weapons offenses and drug offenses. Non-citizens were much less likely to test positive on NIDA-5 drugs [marihuana, cocaine, amphetamines, opiates, and PCP] than citizens” and no significant association was found between citizenship status and violent crimes (Kposowa, Adams, and Tsunokai 2010:159). This study, however, may have underestimated the proportion of immigrants in the sample, since naturalized immigrants are blended with the native population, as the authors noticed. Kposowa and his colleagues also warned researchers about

the risks of using aggregate data when studying individual behavior; regarding the analysis of Hagan and Palloni (1998), they mentioned that “[w]hereas this study utilized individual level variables, Hagan & Palloni’s analysis was based on aggregate units” (Kposowa et al. 2010:176–177). Hagan and Palloni (1998) found a positive relationship between non-citizenship and property crimes, but they found no statistically significant effect between non-citizenship and violent crimes (e.g., homicides).

## **2.4 Immigrant Communities and Linguistic Isolation**

In addition to the generally shared characteristic of Latino immigrants of being economically and socially disadvantaged, they usually share an additional disadvantage not shared by other immigrant groups; Latino immigrants are often not proficient in English, and they live in linguistically isolated communities and neighborhoods. Linguistic isolation constitutes an additional disadvantage that hinders social and economic integration of Latino immigrants. Akins and his colleagues (2008) considered that Latino immigrants are disproportionately exposed to risk factors for crime and drug abuse; they showed that these factors are boosted by the employment barriers and minimal social integration caused by being linguistically isolated.

English proficiency might be a proxy measure of social integration and socioeconomic status as proposed by Vega and his colleagues (Vega et al. 2009). Hence, the concentration of highly linguistically isolated groups should be an indicator of social disadvantage. Vega and his colleagues (2009:12) suggested that “individuals who conduct their primary daily activities using Spanish rather than English [...] exhibit lower levels of integration and social capital.” And as has already been noted, the lack of social capital and the existence of high levels of disintegration contribute to increases in the overall disadvantage levels in neighborhoods according to the Social Disorganization theory. However, according to the Latino Paradox, high



levels of linguistic isolation do not necessarily translate into disintegration or high crime in disadvantaged neighborhoods. Indeed, the Latino Paradox of Crime literature proposes that the linguistic isolation of Latino immigrant groups translates into lower crime rates and higher levels of informal social control (Martínez et al. 2008).

It is important to point out that Shihadeh and Barranco proposed that the Latino Paradox of Crime only applies in “traditional” Latino immigrant destinations (e.g., Los Angeles, San Antonio, Miami, or New York) or “long-established, well-organized, traditional immigrant communities where Spanish is a modal form of communication” (2010:336). In their study about non-traditional immigrant destinations, the authors found that Latino immigrants were murdered at higher rates in “new Latino destinations.” and that these higher rates were linked to English non-fluency. They considered that when Latino immigrants were unprotected “by a shell of common culture and language” (Shihadeh and Barranco 2010:336), there was no “paradox” about Latino immigration and crime; in their argument, this means that generalized low social and economic conditions in a neighborhood would predict higher crime, as it has been traditionally expected.

### **2.5 Social Mobility of Immigrants in the United States**

The literature on social mobility of immigrant groups often focuses on income differentials among the specific ethnic groups and immigrant generations. Ethnicity and nativity status appear to be important predictors of economic success in the US. It has usually been found that immigrants from developed countries such as Canada tend to do much better in the US labor market upon arrival than immigrants from developing countries, such as those in Latin America or Africa (Borjas 2006).

Borjas (2006) estimated that half of the income gap between immigrant ethnic groups is carried on to the next generation. As an example, a twenty-percent income differential for the

Mexican and Canadian first generation immigrants would become a ten-percent difference for the second generation, and then a five percent difference for the third generation. He partially attributed the differential assimilation rates to environmental characteristics pertaining to the places where the immigrants' children were raised. This is interpreted as one more negative effect of residential segregation, that is, the fact that the residential segregation of immigrant disadvantaged groups may partially hinder their incorporation into the mainstream economy for several generations.

In terms of economic disadvantage, some researchers (cf., Borjas 2006; Card 2005) have found that the disparities between immigrants from different ethnicities compared to natives are unlikely to disappear during an immigrant's working life. However, there is evidence of the significant intergenerational social mobility of immigrants, in terms of income, from one generation to the next one. This phenomenon has been found in the United States (Borjas 2006) and in Britain (Platt 2005). Both countries are considered to have similar intergenerational mobility patterns (Kerckhoff et al. 1989). Others have found that higher social standing, and not necessarily higher income, is often converted into better residential outcomes (Borjas 2006; Lewis and Sinha 2007). Minorities may have higher incomes, but lower social standing than their non-minority peers of similar income.

Research conclusions in the social mobility literature often depend on how social mobility is defined. Borjas noted that social mobility should include "accumulation of 'human capital investments,' such as education, language skills, and *geographic relocation*, which improve [immigrants'] economic status in their new country" (Borjas 2006:57). If geographic location improves SES, and residential outcomes are strongly predicted by SES, then the causal relationship between geographic location and other "human capital investments" may well work in a different direction. In other words, a higher SES may be translated into better residential

outcomes, and indirectly into higher incomes, better language skills, less exposure to environmental negative stimuli like crime, and better access to quality education and services.

## **2.6 Hypotheses**

Now that the literature has been reviewed, there are certain voids in the research that need to be addressed. I will endeavor in this dissertation to address some of the voids by testing the following hypotheses:

First, the groups I will analyze, namely, recent Latino immigrants, earlier Latino immigrants, Whites, and Blacks, are expected to show different levels of residential segregation, as measured by dissimilarity indices. Additionally, segregation of native and foreign-born Latinos will be contrasted. In this dissertation, Whites will be the group of reference when measuring residential segregation. Based on Spatial Assimilation and Place Stratification theories, it is expected that the groups to be analyzed will be segregated by socioeconomic status and race or ethnicity. In addition, research suggests that Black segregation seems to occur irrespective of SES in some cases and that, in general, Blacks receive a lower return in their residential options than other groups when their SES increases (Charles 2000). Hence, I expect to find that recent immigrants will be slightly more segregated from Whites than earlier immigrants due to the lower SES of the former. Slightly better residential attainment is expected in earlier immigrants than in recent immigrants given the social mobility experienced by Latino immigrants, which even when limited, shows an upward trend (Borjas 2006). In a similar way, and in a separate analysis, I expect native-born Latinos to be, in general, more residentially integrated than their foreign-born counterparts. This hypothesis is based on previous research that shows some degree of intergenerational mobility (Borjas 2006; Kerckhoff et al. 1989). Finally, I expect to find that recent and earlier immigrants will both show lower levels of

residential segregation than Blacks, as previous research would suggest (Charles 2000; Massey and Denton 1989).

Second, in regards to exposure to crime, I expect the trends outlined in the previous hypothesis to repeat. Namely, the most favorable crime statistics (lower exposure to crime) will belong to the White group, followed by earlier immigrants and recent immigrants. Blacks are expected to have the most disadvantageous crime statistics among all the groups studied. In a separate analysis, I expect to see that Latino immigrants will show higher levels of exposure to crime than native-born Latinos will. The last point may seem to argue against the Latino Paradox literature. However, previous research has shown a correlation between high immigrant concentration and high crime when larger units of analysis (such as census tracts) are used (Krivo et al. 2009). Due to their size, census tracts cannot be proxies for immigrant neighborhoods, or *barrios*, as described in the Latino Paradox literature (Martinez et al. 2003; Sampson 2008; Stowell and Martinez 2009). In addition, aggregate high crime rates in areas with high immigrant concentrations cannot be simply attributed to immigrants; doing so would constitute an ecological fallacy as previously noted (cf., Robinson 1950; Shaw and McKay 1942).

Third, levels of exposure to crime are expected to be more noticeable for violent crimes than for property crime. This is based on previous research that suggests that disadvantaged areas have relatively lower property crime rates than their respective violent crime rates because of the suspected existence of fewer “attractive” targets in the area (Bjerk 2006). There is also evidence that disadvantaged Black communities receive a disproportionate higher return of violence for their level of segregation, particularly of homicides (Eitle 2009; Lee and Ousey 2005; Peterson and Krivo 1993; Shihadeh and Flynn 1996; Shihadeh and Maume 1997).

Fourth, the differences between the minority populations and the White population in terms of exposure to crime are expected to be more noticeable in homicides. Baumer (2002) suggested that the relationship between disadvantage or minority concentration and crime reporting is a significant factor to consider when conducting criminological studies. However, the size of the underreporting effect, if any, has not been widely documented. If Latino or Black communities are actually less likely to report crimes than Whites, that would, of course, skew the results of the analysis. Minority neighborhoods would artificially show low crime rates. However, this potential undesired effect will be less of an influence when homicide statistics are analyzed. Since murder is one of the most serious criminal offenses, very few homicides go unreported, and when they are not reported, they are often discovered by police.

Fifth and finally, immigrants to the US will have better residential outcomes and chances of social mobility when settling in a traditional Latino immigrant destination than when settling somewhere else. This expectation is also based on previous research. Shihadeh and Barranco (2010) hypothesized that pre-existing networks of a common culture and language may result in a protective environment against crime for Latino immigrants. In addition, Rosenfeld and Mares (2008) considered that the Latino Criminological Paradox works best at the most important immigrant entry points to the country.

## CHAPTER III

### DATA AND METHODS

In this dissertation I will assess the relationship between levels of Latino residential segregation and exposure to crime; I will undertake these analyses using aggregate sociodemographic and crime data. As I previously mentioned, the main dataset that I will use is the National Neighborhood Crime Study (NNCS) 2000 (Peterson and Krivo 2000).<sup>6</sup> The crime and demographic data contained in the NNCS were collected from a representative sample of US urban areas. I will supplement the NNCS with additional U.S. Census' demographic data. In this chapter I first describe my dataset in detail. After describing my dataset, I address the methods and operationalization of variables that I will use. I will also include a subsection explaining the ways segregation is commonly measured across the five main dimensions as articulated by Massey and Denton (1988), namely evenness, exposure, centralization, concentration, and clustering. I also provide a rationale for why evenness and exposure are the most appropriate dimensions of segregation to address my research questions. Then I will discuss and describe “traditional destinations.”

I follow the above discussions with a description of precisely how I will test my hypotheses with t-tests and multiple regression analyses at the national level. I will then turn to how and why I will undertake a more detailed analysis of two traditional destinations and two non-traditional destinations. After showing how these four cities were selected, I will discuss how I will use regression analysis for the destination-specific analysis.

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<sup>6</sup> Offense data are from the Washington Area Law Enforcement System (WALES) as of January 2, 2003 and are subject to change due to new information released by the Metropolitan Police Department of the District of Columbia.

### 3.1 Dataset

In my dissertation, I will mainly use data from the NNCS 2000 (Peterson and Krivo 2000). The NNCS includes crime and sociodemographic statistics for census tracts in a "representative" sample of large US cities for the year 2000, the only year available. The final published dataset consists of data collected from police departments, 2000 Census Summary File data (the so-called SF-3 file), and other publicly available sources. The NNCS includes tract-level crime data pertaining to seven of the eight Federal Bureau of Investigation's (FBI) crime index offenses, namely burglary, larceny, motor vehicle theft, rape, murder, robbery, and aggravated assault. "Arson data [were] not included in the NNCS because they are not consistently and reliably reported by police departments" (Peterson and Krivo 2000:3, in Technical Documentation). The FBI uses data on these crimes to produce their annual crime index.

The NNCS contains data for 9,593 census tracts, in 91 cities, 64 metropolitan areas, and 54 Census Metropolitan Statistical Areas/Consolidated Metropolitan Statistical Areas (MSA/CMSA).<sup>7</sup> All the census tracts included in the NNCS will be analyzed in my dissertation. Nearly all of the police departments surveyed for the NNCS provided crime data for three consecutive years (1999-2001) on the seven crimes surveyed. However, few city police departments only provided data for two of the three years for one of more types of crimes. In all cases, only two or three-year averages were made publicly available in the NNCS. Furthermore, the NNCS contains aggregated U.S. Census data on sociodemographic characteristics for the year 2000.

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<sup>7</sup> For more information about US Census' metropolitan area definitions and concepts, please see *About Metropolitan and Micropolitan Statistical Areas* at <<http://www.census.gov/population/metro/about/>>

In order to capture the dynamics of segregation, all indices and calculations in my dissertation will be done at the MSA/CMSA level. Henceforth, US Census' MSA/CMSAs will be referred to as metropolitan areas or cities. Metropolitan areas in the NNCS were selected as a stratified (within region) random sample of cities with populations of at least 100,000 in 1999. Once a sample of metropolitan areas was selected, NNCS investigators proceeded to request from the police departments address-based crime data when available, or tract-level counts of index crimes when not. Address-based data were aggregated into their respective census tracts. "When such data were not available for a city in the original sample, the city was replaced with an alternative place of similar size, racial/ethnic composition, and level of poverty" (Peterson and Krivo 2000:1, in Technical Documentation). In addition, census tracts with populations of less than 300 people were excluded from the NNCS, in addition to those which were dominated by institutionalized populations. A census tract was considered to be dominated by an institutionalized population when more than 50 percent of its population resided in group quarters.

Although there are some of the demographic data that I will use already included in the NNCS, I will gather additional U.S. Census data. To illustrate, additional sociodemographic data (e.g., immigrant counts and Spanish-language prevalence in the city), will be extracted from the U.S. Census of Population and Housing - Summary File 3 (SF3). Furthermore, the determination of being a traditional immigrant metropolitan area destination will be assigned based on the level of Hispanic population concentration in the metropolitan area in 1990, as has been done in previous research (Shihadeh and Barranco 2010).

In my dissertation, one of the most important variables depends on whether the city is classified as being a traditional Latino immigrant destination or not. It is important to differentiate traditional from non-traditional Latino immigrant destinations to properly test my



hypotheses. Recall that Martinez, Rosenfeld and Mares (2008) found that the Hispanic Criminological Paradox worked best at the most important immigrant entry points to the country. Furthermore, Shihadeh and Barranco (2010:336) considered that the most favorable crime statistics for Hispanics existed in traditional Latino immigrant destinations. They noted that the effects of the Latino Paradox are more noticeable in “long-established, well-organized, traditional immigrant communities where Spanish is a modal form of communication” (Shihadeh and Barranco 2010:336). The existence of a shell of common culture and language that Shihadeh and Barranco refer to seems to be protective against crime for Latinos, and may explain the differences in crime statistics for Latinos across metropolitan areas.

In my dissertation, “traditional destinations” for Latino immigrants will be defined using Shihadeh and Barranco’s (2010) classification. Their classification for 2,000 traditional destinations was based on the size of the Latino population in 1990 in each state. In their national study of more than 700 counties, traditional destination counties were a subset of counties located in the “traditional destination states” of California, Texas, New York, Florida, Illinois, Arizona, and New México. In my dissertation I will follow the same approach; the cities to be labeled as traditional immigrant destinations for Latinos will include the metropolitan areas located in a traditional destination state, as defined by Shihadeh and Barranco.

Table 1 includes the list of the 54 cities that I will analyze in my dissertation. Note that they are classified as traditional Latino immigrant destinations and non-traditional Latino immigrant destinations. In the few cases when a city spans at least one traditional destination state and one non-traditional destination state, the classification will be made based on the state in which most of the population of that city resides. Examples of this are Chicago and St. Louis. The former city spans across the boundaries of Illinois, Indiana, and Wisconsin, while the latter crosses the boundaries of Missouri and Illinois. Most of Chicago’s population resides in Illinois,

while most of Saint Louis' population lives in Missouri. Hence, Chicago was labeled as a traditional Latino immigrant destination, while Saint Louis was not.

As noted earlier, a main objective of my dissertation is to contrast the crime exposure of recent and earlier Latino immigrants with that of Blacks and US-born (or native) Hispanics. Whites will be the reference group. Recent and earlier immigrants will be defined as those with less than 10 years in the United States and those with 10 or more years of residence, respectively. Even though a cutoff point of ten years of residence to separate both groups is an arbitrary one, it is consistent with cutoff points displayed in many U.S. Census Bureau's tabulations.

**Table 1** NNCS' Metropolitan Areas-Classified by Traditional Latino Immigrant Destination, US, 2000  
 Source: NNCS 2000 with Shihadeh and Barranco's (2010) classification for traditional Latino immigrant destinations.

<b>MSA/CMSA</b>	
*Albuquerque, NM	Madison, WI
Anchorage, AK	*McAllen-Edinburg-Mission, TX
*Austin-San Marcos, TX	Memphis, TN-AR-MS
Boston-Worcester-Law., MA-NH-ME-CT	*Miami-Fort Lauderdale, FL
*Buffalo-Niagara Falls, NY	Milwaukee-Racine, WI
Charlotte-Gastonia-Rock Hill, NC-SC	Minneapolis-St. Paul, MN-WI
*Chicago-Gary-Kenosha, IL-IN-WI	Nashville, TN
Cincinnati-Hamilton, OH-KY-IN	New Haven, Stamford, Waterbury, CT
Cleveland-Akron, OH	Norfolk-Virginia Beach-Newport News, VA-NC
Columbus, OH	Oklahoma City, OK
*Dallas-Fort Worth, TX	Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-
Dayton-Springfield, OH	MD
Denver-Boulder-Greeley, CO	*Phoenix-Mesa, AZ
Des Moines, IA	Pittsburgh, PA
Detroit-Ann Arbor-Flint, MI	Portland-Salem, OR-WA
Eugene-Springfield, OR	*Rockford, IL

**Table 1** Continued

Evansville-Henderson, IN-KY	St. Louis, MO-IL
Hartford, CT	*San Antonio, TX
*Houston-Galveston-Brazoria, TX	*San Diego, CA
*Jacksonville, FL	*Oakland-Santa Rosa, CA
Kansas City, MO-KS	Seattle-Tacoma-Bremerton, WA
Knoxville, TN	*Tampa-St.Petersburg-Clearwater, FL
Lexington, KY	Toledo, OH
Lincoln, NE	Topeka, KS
*Los Angeles-Riverside-Orange C., CA	*Tucson, AZ
Louisville, KY-IN	*Waco, TX
* = Traditional Destination n=54	

### 3.2 Operationalization and Methods

Now that I have described the dataset I will use in my analyses, I will describe in detail how segregation and exposure to crime will be measured across cities and how statistical differences will be assessed.

#### 3.2.1 Segregation Measures

The best way to measure segregation, according to Jaret (1995), is with segregation indices. Segregation indices are computed by mathematical formulas that produce segregation scores that usually range from 0 to 1. Each of the various dimensions of segregation I will use warrant different measures. In my dissertation, evenness and exposure are deemed to be the most appropriate for addressing my research questions. I discuss this issue below, and also mention the other three dimensions of segregation described by Massey and Denton (1988) that I have opted against using in my analyses.

### 3.2.2 Evenness

Evenness is the first dimension of segregation that I will use in my dissertation analyses. Evenness, as defined by Massey and Denton (1988), involves the different spatial distributions of two populations, e.g., Blacks and Whites. This dimension is typically measured with the Index of Dissimilarity, shortened as D. Given that D measures the extent to which two populations are differently distributed, its use is not limited to the study of residential segregation. The dissimilarity index may also be used as a measure of inequality. However, D is mostly used by sociologists as a measure of residential segregation. When studying residential segregation, a D index score should be interpreted as the proportion of people in a given population that would need to change their residences to certain other spatial locations in order to attain a spatial distribution that is the same as that of the comparison population. A D score of zero would represent complete integration, meaning that the spatial shares that both populations hold in the city are the same. Conversely, a value of one would represent complete segregation of the two groups, that is, none of the members of the two populations in the analysis share any areal units. Thus, a D value of .45 while measuring Black-White segregation would mean that 45 percent of the Blacks in a city would have to move to certain other spatial areas in the city for their distribution across the spatial areas to be the same as that of the Whites.

Compared to other measures of segregation, D scores are not affected by the relative sizes of the two groups of interest. This means that D scores from different cities are comparable with each other regardless of the relative size of the city populations. This attribute of D has resulted in it being the most commonly used measure of segregation when a researcher wants to compare levels of segregation across many cities. One of the first studies demonstrating the use of D and its ease of comparability is Taeuber and Taeuber's *Negros in Cities*, published in 1965. *Negroes in Cities* consisted of a large-scale comparative analysis of D and other quantitative

indices of residential segregation across several US cities using data from the U.S. Census Bureau. The Taeubers calculated a series of Black-White D indices for a subset of cities in the country in order to compare Blacks' levels of segregation across the nation.

In my dissertation, the comparability of D index scores across different cities is very important given that one of my goals is to compare segregation levels of my groups of interest across the country. Needless to say, all cities have different Black, White, and Latino immigrant shares of the population. Furthermore, D scores may be compared across racial/ethnic groups, that is, D scores may be appropriately used to compare immigrant-to-White to Black-to-White levels of segregation.

As an example, an immigrant-to-native dissimilarity (D) index would be calculated as follows:

$$\frac{1}{2} \sum_{i=1}^n \left| \frac{i_i}{I} - \frac{n_i}{N} \right|$$

where:

$i_i$  = the immigrant population of the  $i^{th}$  census tract

$I$  = the total immigrant population of the city

$n_i$  = the native population of the  $i^{th}$  census tract

$N$  = the total native population of the city

Measuring the evenness of distribution of Latino immigrants will give me an assessment of the levels of segregation of these groups across different cities. However, D indices will not give me any insights on the differential level of exposure to crime experienced by Blacks, Whites, or Latinos. To address this concern, another dimension of segregation is required.

### 3.2.3 Exposure

The second dimension of residential segregation I will use in my dissertation is “exposure”; it refers to “the degree of potential contact, or possibility of interaction, between

minority and majority group members” (Massey and Denton 1988:287). Exposure and evenness are similar; however, the potential of exposure or interaction between two groups depends on their relative size, while their evenness in distribution does not. That is, a minority person may be moderately exposed to the majority group and yet be considered as highly segregated when looking at the shares of both groups in the city. This liability, however, does not apply to the measurement of evenness, which only involves in its calculations the shares that the two populations have in the smaller areal units and in the city as a whole. The two most commonly used measures of exposure are the interaction and isolation indices.

The interaction and isolation indices reflect the probabilities that a minority person shares an areal unit with a majority person or with another minority person, respectively (Massey and Denton 1988:288). When there are only two groups of a kind in a city, the sum of the interaction and isolation indices for a city should equal 1.0. Thus, lower interaction and higher isolation indices indicate higher segregation. Interaction indices are computed as the “minority-weighted average of the majority proportion of the population in each areal unit” (Iceland et al. 2002:120). This means that an immigrant-to-native interaction index of 0.25 indicates that, on average, immigrant residents in a given city are “exposed” or have potential contact with a population that is 25 percent native; being exposed to, or having potential contact with, are defined as sharing an areal unit with a member of another group. Since, the statuses of being immigrant or native are mutually exclusive and exhaustive, an isolation index for the same groups in the same city should equal .75, which refers to the immigrant population proportion. Interaction and isolation indices adding to one is typically not the case when dealing with race or ethnicity, since it is very rare that a city or town has representation from only two ethnic or racial groups. As an example, non-White-to-White interaction and isolation indices for a city should sum to one, but Black-to-White interaction and isolation indices for the same city most likely

will not; they would only sum to one in the theoretical case that in a city everybody is either Black or White.

It is very important to note in my dissertation that even when exposure typically refers to the potential contact between two distinct groups of people, it is possible to measure the exposure or interaction between people with other people, with objects or places, or with events. As an example, with an interaction index, it is possible to measure the potential contact that a group of people will have with alcohol outlets or with traffic jams. In my dissertation, I will measure the interaction that Latinos, Blacks, and Whites have with different types of criminal events. This will be measured as the frequency with which crimes occur in census tracts relative to their population size, i.e., crime rates per 1,000 persons (or per 100,000 in the case of murder and per 10,000 for rape). This attribute of the interaction index makes it the most appropriate one to use to address my main research question.

Crime data from the NNCS and demographic data from the US Census will be used to calculate three-year-average (1999-2001) rates for each census tract for the seven types of crimes in the NNCS 2000 (three property crimes and four violent crimes). Once the rates are calculated for all crimes, interaction indices will be calculated for the five race/ethnic groups of interest, namely, recent Latino immigrants, earlier Latino immigrants, native Latinos, Blacks, and Whites. This will be done for all cities in the NNCS. As an example, an index of interaction-with-homicides per 100,000 people for immigrants would be calculated as follows:

$$\sum_{i=1}^n \left( \frac{i_i}{I} \times \frac{h_i}{t_i(100,000)} \right)$$

Where:

- $i_i$ = the number of immigrants in the  $i^{th}$  census tract
- $I$ = the total immigrant population in the city
- $h_i$ = The three-year average number of homicides reported in the  $i^{th}$  census tract
- $t_i$ = The total population in the  $i^{th}$  census tract

The calculation of interaction indices of immigrants with homicides will tell us the level of interaction with murder of the average immigrant in a given city. As mentioned earlier, interaction index scores depend on the relative sizes of the two populations. By calculating interaction-with-homicide indices for all cities in the NNCS, we can tell in which cities immigrants are more exposed to crime. However, we cannot tell whether immigrants (as an example) are disproportionately exposed to crime when compared to the White population. This is the case given that different cities have different crime levels, e.g., an immigrant in Los Angeles, California may be exposed to higher crime rates than an immigrant in Topeka, Kansas. However, the immigrant in the city with lower crime rates may be more disproportionately exposed to crime.

Due to different relative crime levels in different cities, indices of interaction with crime should not be compared across cities if the Latino Paradox of Crime is to be addressed. However, there is a way to address the Latino Paradox of Crime using the relative exposure to crime of immigrants by using another group as reference. This approach will be used in my dissertation.

Once the interaction-with-crime indices are calculated, a measure of the level of “over-exposure” to crime that is experienced by minorities will be calculated using non-Hispanic Whites as the reference group. The measure of over-exposure will be defined as the percentage difference between the interaction index score of Whites and the interaction index score of the minorities. Furthermore, a measure of mobility will be calculated. Mobility will be defined in terms of exposure to crime, and will be calculated by simply subtracting the earlier immigrants’ “over-exposure” score from the recent immigrants’ “over-exposure” score. As an example, if recent immigrants were “over-exposed” to 30 percent more homicides than Whites, and earlier immigrants were over-exposed to 14 percent more homicides than Whites in Albuquerque, then



it may be stated that in Albuquerque, immigrants achieved a 16-percent-point mobility in 10 years, i.e., immigrants typically reduced the immigrant-White over-exposure gap by 16 points in 10 years in Albuquerque.

At this point, the findings obtained could be incorporated into the Latino Paradox of Crime discussion. According to the Latino Paradox of Crime, the levels of over-exposure to crime of immigrants and Blacks will be statistically different, being lower for Latino immigrants. In addition, the idea that the Latino Paradox of Crime “works” best at traditional Latino immigrant destinations (Martinez, Rosenfeld & Mares, 2006), if at all (Shihadeh & Barranco, 2010) may be also tested. According to this idea, immigrants should be exposed to lower crime rates than Blacks only in traditional immigrant destinations.

#### *3.2.4 Concentration, Centralization, and Clustering*

The other dimensions that Massey and Denton (1988) refer to, but that will not be used in our analysis, are concentration, centralization, and clustering. “Concentration refers to the relative amount of physical space occupied by a minority group in the metropolitan area” (Massey and Denton 1988:289). Thus, minority groups of similar sizes that occupy less space would be considered more concentrated, and consequently, more segregated (Iceland et al. 2002:120). Centralization is similar to concentration. However, it is based on the downtown area of the main city in the metropolitan area. “Centralization is the degree to which a group is spatially located near the center of an urban area” (Massey and Denton 1988:291). The last dimension, clustering, refers to the degree to which members of a specific group live in contiguous areas (e.g., census tracts, block groups, zip-code areas, etc.) of a city.

The correlations between these three dimensions of segregation and crime have already been studied. There is evidence of an apparent correlation between high segregation and high crime across the aforementioned dimensions. This correlation has been documented in research

about overcrowding and crime (“concentration”), proximity to urban centers and homicides (“centralization”), and spatial “clustering” of disadvantage and violent crime (Harries 1980; Shihadeh and Maume 1997; Stretesky et al. 2004, respectively). Even though the analyses of these dimensions and crime would well fit my dissertation, crime statistics would not be able to be incorporated into the segregation calculations the way I am proposing. In other words, we could get to know the level of concentration of minorities relative to that of Whites, and we could know the level of concentration of minorities relative to the concentration of crime. However, we would not be able to measure the level of interaction between minorities and different types of crimes. Furthermore, the analysis of these dimensions of segregation would require the development of full areal profiles of the cities, an objective beyond the scope of my dissertation.

### *3.2.5 t-test of Differences between Means and Regression Analysis*

After the dissimilarity and exposure indexes are calculated, I will calculate a series of t-tests to determine the degree of statistical significance of my preliminary findings. The t-statistic was introduced in 1908 by William Sealy Gossett, an English chemist and statistician who developed the concept of the t distribution while working for the Guinness Brewery in Ireland. Gossett, who published his findings under the pseudonym “Student,” developed the t distribution and t-test as a means of quality control tool in the production of beer. Today, t-tests (or Student’s t-tests) of difference between means are typically used to determine if two sets of data are significantly different from each other. This is to say, t-tests assess the probability that the differences in two or more distributions are due to random chance.

In my analysis, once the dissimilarity and interaction indices and over-exposure to crime and mobility scores are calculated for all the groups, their means will be tested for statistical differences. Determining statistical significance will permit me to statistically answer my

research questions. Recall that two of my main research questions are that there will be differences in terms of interaction with crime between Latino immigrants and Blacks, and that differential exposure will be more favorable for immigrants in Latino immigrant destinations than in the rest of the cities. Specifically, in order to declare whether the differences observed across groups and destinations are statistically significant, a series of two-tailed t-tests will be performed. In my analysis, a conventional alpha level of .05 will be set as the cutoff point to accept or reject the null hypotheses.

In separate analyses, I will estimate Ordinary Least Squares (OLS) regression equations to predict “over-exposure” of Latino immigrants and their “mobility” in all 54 cities. Multiple OLS regression is often used by sociologists when they suspect that a dependent variable (in this case over-exposure and mobility) is affected by two or more independent variables (Bachman and Paternoster 2008; Maxfield and Babbie 2014). OLS regression is calculated with the formula of a straight line to obtain the best “fit” estimates for the dependent variable and each one of the independent variables by minimizing the sum of the squared residuals (Ramsey and Schafer 2012; Ritchey 2007). Fox (2003) defines squared residuals as the squared “vertical distances” in a scatterplot between the straight line and the dependent variable score for each case. Basically, OLS regressions consist in summarizing relationships with “a single straight line that `best` describes [them]...” (Fox 2003:229). The “line” that summarizes the relationships between the dependent variable and each one of the independent variables is considered “the best possible straight-line predictor of dependent variable scores” because the sum of the squared errors is minimized (Fox 2003:233).

In order to control for economic conditions in cities when predicting “over-exposure,” a disadvantage index included in the NNCS will be used. The NNCS disadvantage index consists of the average standardized scores (z-scores) of the following six variables: percent of low-wage

jobs, jobless rate for the working-age population, percent of professionals and managers (reversed, i.e., fewer professionals result in higher z-scores), percent female-headed households, percent of high school graduates (reversed), and percent of people in poverty. This index has a Chronbach's Alpha of .93, indicating very high internal consistency. Furthermore, the traditional/non-traditional destination variable will be included in the OLS model to test Shihadeh and Barranco's (2010) hypothesis that pre-existing networks of a common culture and language result in a protective environment against crime for Latino immigrants. Median age in the city and population size will be added to the regression model as control variables. In alternative models (to avoid multicollinearity) other variables such as percent Hispanic or percent Latino immigrant in the city will be added.

### *3.2.6 Traditional versus non-Traditional Latino Immigrant Destinations - Case Study*

By this point, my research questions should have been answered and my hypotheses tested, at least broadly. However, the dynamics of how segregation, ethnicity, and crime interact warrant further analysis. Accordingly, four specific cities will be studied in more detail. The group of four cities was selected to include a representation of traditional and nontraditional Latino immigrant destinations and very large and small cities. Very large cities will hereafter be referred to as metropolises. The two metropolises selected are among the largest cities in the NNCS, while the other two are among the smallest in terms of population size. One of the metropolises and one of the smaller cities is a traditional destination for Latino immigrants.

The two metropolises selected for a more detailed analysis are Los Angeles and Washington, DC. These cities are among the top five cities in terms of population size in the NNCS. In 2000, Los Angeles had a population of roughly 16 million people, of which about 40 percent was Hispanic. This was the only metropolis with more than twice the percent Hispanic national average (i.e., 12.5 percent). The other metropolis selected, Washington, DC had a

population of roughly 7.5 million and was only 6.4 percent Hispanic. This metropolis was selected to represent non-traditional Latino immigrant destinations because Washington, DC is the largest non-traditional destination in terms of population size in the NNCS.

The two smaller cities that were selected are Toledo, Ohio and McAllen, Texas. These cities were in the lowest quintile in terms of population size in the NNCS, and both had a population of roughly 600,000 people in 2000. Toledo had a population that was about 4 percent Hispanic, while McAllen had a population that was almost 90 percent Hispanic. These cities were among the smallest cities of their respective category in the NNCS.

#### 3.2.6.1 Regression Analysis for Single Cities

To complete the analysis of data in my dissertation, OLS regression will then be used in my study of the four cities. In this part of my dissertation, census tracts will be my units of analysis, and my dependent variables will be the census tract crime rates (for the 7 NNCS types of crimes). My models will be intended to predict the factors related to high crime in census tracts. For this, I will use percent Latino immigrant, percent Black, percent White, foreign born-to-native ratio, median age, and the NNCS' disadvantage index as independent variables in my model. The demographic variables will be operationalized and defined as in the U.S. Census published data, and the disadvantage index as described before.

#### 3.2.7 Summary

In this chapter I described how I will test my hypotheses and statistically answer my research questions. For this, I will conduct two separate analyses.

The first analysis will consist in the calculation of dissimilarity indices and a series of indices of interaction with crime for 54 cities. Subsequently, I will determine the levels of over-exposure to crime and mobility for Blacks and Latinos. Finally, I will assess the degree of

statistical significance of my findings and predict over-exposure and mobility at the national level using t-test and regression analyses, respectively. The second analysis will consist in a case study of four cities, two traditional and two non-traditional Latino immigrant destinations. In this part of my dissertation, I will predict crime rates using sociodemographic variables at the census tract level.

In the next chapter, I will present and discuss my findings related to the analysis of the 54 metropolitan areas in the NNCS. When I finish that, I will present my findings related to the four-city case study in a separate chapter.

## CHAPTER IV

### GENERAL RESULTS AND DISCUSSION

In this chapter, I will present and discuss the results of the national-level analyses that I conducted for my dissertation. More specifically, I will present my findings as related to segregation and crime for the 54 metropolitan areas included in the NNCS. I will discuss what I found after calculating segregation and exposure indices and after I analyzed them with t-test and regression methods, as proposed in the previous chapter. In this chapter, I will not present any findings related to the four-city study that I conducted to gather the finer details of the dynamics of immigration, segregation, and crime. It is in chapter five where I will address the case studies of Los Angeles, California; McAllen, Texas; Washington, DC; and Toledo, Ohio. Recall that two of these cities are traditional Latino destinations, and the other two are non-traditional immigrant Latino destinations, as defined in chapter three.

Given that residential segregation is a central focus of my dissertation, as it is of the Latino Paradox, I begin this chapter with the presentation of my findings related to residential segregation. After I report my findings regarding the evenness of distribution of the Latino and Black populations relative to the White population (as measured by D indices), I will show the levels of exposure to crime that these groups experienced in 2000. In this section of this chapter, I will contrast the levels of exposure to violent crime and property crimes of the groups. In addition, I will contrast their over-exposure and mobility, as previously defined. All these indicators will be tested for statistical significance via a series of paired two-tailed t-tests. I finalize this chapter by presenting the results of part of my regression analyses, where interaction and over-exposure to crime are used as the dependent variable.

In general, I found evidence that supports the existence of a “paradox” of crime among Latinos in the US, particularly Latino immigrants. Recall that I will address in this dissertation

the Latino Paradox of Crime from an exposure-to-crime perspective, not as it has traditionally been done. Unlike other studies, I will not analyze offending or victimization statistics. Even when Latinos, particularly Latino immigrants, showed similar levels of segregation as non-Hispanic Blacks, their statistics regarding exposure to crime were, in general, more favorable than those of Blacks. As expected, I found the “paradox” to be more noticeable when dealing with violent crimes than with property crimes, and I found it to be particularly more noticeable with homicides. However, contrary to what I expected, I did not find conclusive evidence to suggest that traditional Latino immigrant destinations are significantly different from non-traditional destinations.

#### 4.1 Residential Segregation - Dissimilarity Indices

Overall, I found evidence to support what I proposed in the first hypothesis. My first hypothesis suggested that, based on previous research, I expected to find that the minority group that should be the most segregated from Whites was Blacks, followed by recent Latino immigrants, and then by earlier Latino immigrants; the least segregated group was expected to be native Latinos.

**Table 2** Descriptive Statistics: Dissimilarity from Whites for Selected Populations

	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Blacks</b>	54	0.591	0.132	0.315	0.852
<b>Native Latinos</b>	54	0.413	0.12	0.159	0.689
<b>Latino Immigrants</b>	54	0.543	0.111	0.276	0.851
<b>Recent Latino Immigrants</b>	54	0.591	0.089	0.415	0.863
<b>Earlier Latino Immigrants</b>	54	0.523	0.099	0.288	0.787
Notes: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively. Recent and earlier immigrants refer to those with less than 10 years of residence and those with 10 years or more of residence in the US, respectively.					



In order to measure residential segregation in terms of evenness of distribution, dissimilarity indices (D) were calculated as described in the previous chapter. Table 2 displays the mean dissimilarity for five groups of people, namely, Blacks, native Latinos, Latino immigrants, and recent and earlier Latino immigrants. The mean Ds were calculated using the 54 metropolitan areas included in the NNCS.<sup>8</sup>

For all groups, the mean level of segregation from Whites is considered moderate, according to previous research. Massey and Denton (1993:20) proposed the following criteria for the interpretation of D values: values below 0.30 indicate low segregation, values between 0.31 and 0.60 indicate moderate segregation, and values between 0.61 and 1.0 indicate a high level of segregation. Recall that the D indices here should be interpreted as the proportion of Blacks or Latinos that would need to relocate to a different census tract in order to achieve an “even” geographic distribution relative to that of Whites’ across all areal units of a given city.

The mean D values for the five groups were between 0.31 and 0.60 as can be observed in table 2. However, with one exception, these values may be considered as moderate-high since all of them closely approximate the cutoff point of 0.60. The least segregated group was native Latinos, with a D score of 0.413. This was expected based on previous research. Iceland and Nelson (2008) concluded that nativity was an important prediction of segregation among Latinos. The most highly segregated groups were Blacks and recent Latino immigrants; both groups share the same D value, 0.591. This D score is barely below Massey and Denton’s (1993:20) cutoff value to assess high segregation. Latino immigrants who had been in the US for at least 10 years by the year 2000 (“earlier Latino immigrants”) show a D score of 0.523. This is, the average Latino immigrant present in the country for 10 or more years was still more

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<sup>8</sup> The individual scores for all the metropolitan areas are found in table A-1 in appendix A.

segregated than native Latinos, but slightly less segregated than Blacks. These findings indicate a linear trend in terms of mobility in residential attainment for immigrants. “Recent immigrants” were the most segregated of the Latino groups, and “native Latinos” the least segregated, while the level of segregation of earlier immigrants was intermediate between those of the said groups.

Table 3 displays the results of the series of t-tests that were performed to assess the statistical significance of the differences between the mean D scores presented in table 2. All the differences between means were statistically significant at the 0.05 alpha level in a series of paired two-tailed t-tests, with one exception. There was no statistically significant difference between the mean segregation of Blacks and recent Latino immigrants. However, the difference in means between these two groups was negligible. Indeed, their mean D scores were the same when rounding to the third decimal point.

**Table 3** Paired Two-tailed t-tests: Differences Between Mean Dissimilarity from Whites

	<b>X1</b>	<b>X2</b>	<b>X3</b>	<b>X4</b>	<b>X5</b>
<b>X1: Blacks</b>	1	<0.001	0.017	0.991	<0.001
<b>X2: Native Latinos</b>	12.54	1	<0.001	<0.001	<0.001
<b>X3: Latino Immigrants</b>	2.58	-10.93	1	<0.001	0.014
<b>X4: Recent Immigrants</b>	-0.01	-15.23	-8.47	1	<0.001
<b>X5: Earlier Immigrants</b>	4.28	-12.01	2.55	8.68	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.					

There were 16 cities where Latino immigrants (including earlier and recent immigrants) were highly segregated, i.e., with D scores of 0.60 or higher.<sup>9</sup> Not surprisingly, nine of the cities were traditional Latino immigrant destinations. Recall that Latino segregation has been found to

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<sup>9</sup> Refer to table A-1 in appendix A.

increase in places with high Hispanic immigration or rapid Hispanic population growth (Charles 2003; Iceland et al. 2002; Logan 2003; Massey and Denton 1987). One of my hypotheses expected that immigrants would have better residential outcomes and chances of social mobility in traditional Latino immigrant destination than in non-traditional destinations; however, this hypotheses referred to better residential outcomes in terms of exposure to crime, not in terms of segregation. My hypothesis is based on previous research that suggests that places of high immigrant concentration (a.k.a., segregation) are not necessarily bad options in terms of exposure to crime (Martínez et al. 2008; Shihadeh and Barranco 2010; Stowell and Martinez 2009).

**Table 4** Dissimilarity from Whites for Selected Populations

	Non-Traditional Destination		Traditional Destination	
	N	Mean	n	Mean
<b>Blacks</b>	36	0.596	18	0.581
<b>Native Latinos</b>	36	0.387	18	0.466
<b>Latino Immigrants</b>	36	0.525	18	0.579
<b>Recent Latino Immigrants</b>	36	0.583	18	0.608
<b>Earlier Latino Immigrants</b>	36	0.506	18	0.557
Note: Among the differences of means displayed in this table, only the difference for native Latinos was statistically significant, with a p-value <0.001.				

Table 4 displays mean dissimilarity indices broken down by destination type. For all the Latino groups, segregation was slightly higher in traditional Latino immigrant destinations than in non-traditional destinations, and Black segregation was slightly lower in places of Latino immigration than in the rest of the cities. This decrease, however, was minimal and not statistically significant. Indeed, the only statistically significant difference displayed in table 4 is that for native Latinos. A D score of 0.383 for native Latinos in non-traditional destinations

increased to 0.470 in traditional Latino immigrant destinations. Given that Latinos are supposed to “do better” in traditional destinations than in non-traditional destinations according to some research (Shihadeh and Barranco 2010), this may seem paradoxical. However, there is also research indicating that segregated communities of some minorities are not always the result of economic disadvantage, but rather of personal preference (Logan et al. 2002). It is therefore reasonable, then, to suggest that the higher mean D scores in traditional destinations may be attributed to the existence of ethnic neighborhoods and immigrant enclaves, which are more commonly found in traditional immigrant destinations. Overall, I found that consistent with previous research (Charles 2003; Iceland and Nelson 2008; Iceland et al. 2002; Logan 2003), Latinos (particularly Latino immigrants) are on average moderately segregated from Whites. I found moderate to high segregation from Whites in most of the cities included in the NNCS as can be seen in table A1 in appendix A.

Among the 54 cities studied in my dissertation, only ten of them had D scores for native Latinos that indicated low segregation (i.e., D scores below 0.30), as defined by Massey and Denton (1993:20). Only one of these cities was a traditional Latino destination, namely, Jacksonville, FL. It is necessary to point that even though Jacksonville is located in the traditional destination state of Florida, its Hispanic population in 2000 was only 4.1% of the total population. Latino immigrants were segregated severely in more places than native Latinos. Among the 54 cities in the NNCS, only one city had a D score for Latino immigrants below 0.30, namely, Hartford, CT. Even when Hartford was labeled as a non-traditional destination (as defined in the previous chapter), in 2000 40.6% of its population was Hispanic, mainly of Puerto Rican descent. Table A1 may be consulted for detailed information on individual D scores for the five selected populations.

As set forth in the Latino Criminological Paradox literature, Latino residential segregation does not necessarily lead to higher exposure to crime. Hence, the analysis of D indices here was not performed to answer my research questions, but rather to assess the levels of segregation of Blacks and Latinos. This was done to challenge the long held assumption that higher segregation equals higher exposure to crime (Bjerk 2006; Feldmeyer 2010; Holloway and McNulty 2003; Krivo et al. 2009; Massey and Denton 1993; O'Flaherty and Sethi 2007). According to the Latino Criminological Paradox, Latino communities would have lower crime even if they have levels of segregation similar to those of other disadvantaged minority groups (Lee et al. 2001; Martinez and Valenzuela 2006; Martinez 2002; Sampson 2008; Stowell and Martinez 2009). In the next section, I will present and discuss what may be one the more important results in my dissertation, the indices of interaction with crime. This will allow me to more directly address my research questions.

#### **4.2 Exposure to Crime - Interaction Indices**

Now that I have discussed the levels of segregation of Blacks and Latinos in 2000 across the nation, I will address the correlation between residential segregation and exposure to crime. This section of the chapter will have two parts. In the first subsection, I will discuss my findings as they relate to exposure to violent crimes; namely murder, rape, robbery, and aggravated assault. In the second subsection, I will discuss exposure to property crimes; namely burglary, larceny, and motor vehicle theft (MVT). When I will present exposure statistics for seven types of crimes in this chapter, I will place more emphasis on the discussion of murder. Murder will be emphasized for reasons that have already been outlined. Specifically, previous research suggests that minority concentration is negatively correlated to crime reporting (Baumer 2002). More specifically, murder statistics are deemed more reliable than the rest, given that homicides are less likely to not be reported than other, less-violent and less-serious, crimes.

#### *4.2.1 Exposure to Violent Crimes - Findings*

Based on the calculation and analysis of a series of interaction indices for different groups of people and violent crimes, I found evidence to support my second hypothesis with regard to violent crimes. My second hypothesis stated that the most disadvantaged (i.e., most highly exposed to crime) group in terms of exposure to crime should be Blacks, followed by Latino immigrants, and then native Latinos. Not surprisingly, my hypothesis also expected that the group with the most favorable statistics in terms to crime exposure should be non-Hispanic Whites.

The first violent crime that I will discuss is murder. Murder (and all crime) statistics, as published in the NNCS, come from the Uniform Crime Reports (UCR). The UCR consist of official data on crimes in the United States. As mentioned before, these data are published by the FBI in their index crime reports. UCR guidelines define murder as “[t]he willful (nonnegligent) killing of one human being by another” (Federal Bureau of Investigation 2004:15). In addition, “[a]s a general rule, any death caused by injuries received in a fight, argument, quarrel, assault, or commission of a crime is classified as Murder and Nonnegligent Manslaughter.” Suicides, accidental deaths, fetal deaths, assaults to murder, traffic fatalities, and attempts to murder are not classified as murder (Federal Bureau of Investigation 2004:15–16).

Table 5 displays a series of interaction-with-murder indices that were calculated for six different groups. These indices were calculated as described in the previous chapter and were calculated on the basis of murders per 100,000 people. Hence, an interaction index of 12.68 for Whites in St. Louis, MO (see table A2 in appendix A) indicates that, on average, White residents in St. Louis are exposed to a murder rate of 12.68 homicides per 100,000 people.<sup>10</sup> Table 5

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<sup>10</sup> The individual scores for each metropolitan area can be found in table A-2 in appendix A.

displays the unweighted average indices of interaction with murder for the cities with available murder data.

**Table 5** Descriptive Statistics: Interaction with Murder for Selected Populations

	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Whites</b>	52	5.861	2.535	0.937	12.675
<b>Blacks</b>	52	19.908	12.501	0.804	59.209
<b>Native-born Hispanics</b>	52	11.741	5.94	1.303	30.865
<b>Latino Immigrants</b>	52	12.656	7.281	1.406	32.814
<b>Recent Latino Immigrants</b>	52	13.231	7.574	1.479	33.198
<b>Earlier Latino Immigrants</b>	52	12.842	7.133	1.256	33.962
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

Table 5 displays the summary statistics pertaining to interaction with murder for the selected populations. As expected, the group with the lowest exposure to murders was Whites with a mean interaction index of 5.861, roughly half of the interaction score of the next ranked group, native Hispanics. The interaction score of 11.741 for native Latinos was, in turn, less than 60 percent of that of the group that followed, Blacks. Mean interaction indices for the four Latino groups ranged from 11.741 to 13.231; the variation of their interaction scores with murder was only 12.69 percent from the group with the lowest score to the one with the highest score. Even when variation in these scores was minimum, interaction scores for the Latino groups were consistent with my second hypothesis, i.e., Native Hispanics would be less exposed to crime than Latino immigrants, and recent immigrants would be more exposed to crime than Latino immigrants.

It is important to mention that not all the differences between the mean interaction with murder scores were statistically significant. Table 1B in appendix B shows that the mean

interaction-with-murder scores for Whites and Blacks were statistically different from those of the other groups. However, the difference in means between native Latinos and Latino immigrants was not statistically significant, nor was the difference between the mean scores for earlier and recent immigrants.

As mentioned before, the mean interaction indices calculated from the individual interaction indices of 52 of the 54 metropolitan areas in the NNCS were not weighted to control for population size. This means that the lowest index value for Whites, i.e., 0.937 for Fort Collins, CO has the same weight in the calculation of an average for Whites as the interaction value for Whites for Washington, DC, that is 6.216. The White population in Fort Collins was 125,854 in 2000, while the White population in Washington was 219,719 in the same year, roughly three-fourths more.

Unweighted interaction index averages could well produce misleading statistics; this may be particularly problematic for Latino immigrants if we consider that crime may be higher in very large cities, and we can notice that traditional Latino immigrant destinations are typically large or very large in terms of population. However, as described in the previous chapter, in order to control for relative crime levels in different cities, over-exposure to crime (relative to that of Whites) was calculated. These findings will be presented in the next subsection.

Now I will discuss my results as related to rape. UCR guidelines define rape as “[t]he carnal knowledge of a female forcibly and against her will[...] There is carnal knowledge if there is the slightest penetration of the sexual organ of the female (vagina) by the sexual organ of the male (penis)” (Federal Bureau of Investigation 2004:19). Hence, by definition, “sexual attacks on males are excluded from the rape category and must be classified as assaults or other sex offenses depending on the nature of the crime and the extent of injury” (Federal Bureau of Investigation 2004:20).



Table 6 displays the average indices of interaction with rape calculated for the six groups. These indices were calculated as described in the previous chapter, and were calculated on a basis of rapes per 10,000 people. Table 6 displays the unweighted average indices of interaction with rape for the cities that have the necessary data available , 48 in total. A list with the individual scores for each metropolitan area can be found in table A-3.

**Table 6** Descriptive Statistics: Interaction with Rape for Selected Populations

	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Whites</b>	48	3.839	2.027	0.649	10.7
<b>Blacks</b>	48	7.107	3.395	0.766	17.593
<b>Native-born Hispanics</b>	48	5.477	2.77	0.667	14.413
<b>Latino Immigrants</b>	48	5.958	3.217	0.743	16.081
<b>Recent Latino Immigrants</b>	48	6.191	3.332	0.7	16.311
<b>Earlier Latino Immigrants</b>	48	5.728	2.913	0.767	13.777
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

Mean interaction with rape for the different groups do not vary as much as the interaction with murder scores. The lowest mean interaction score was 3.839 for Whites, and the highest was 7.107 for Blacks. This is an 85 percent increase from the group with the least interaction to the group with the highest interaction. In contrast, there was a 240 percent increase from the lowest scored group to the highest scored one in the case of murder.

Even though variation in interaction indices for rape was relatively minor, all the differences between means for the different groups were statistically significant at the 0.05 level (see table B-2 in appendix B). In addition, the ranked order of the mean interaction indices was as expected, i.e., “Whites” were the least disadvantaged group in terms of exposure to rape, and “Blacks” were the most disadvantaged one; Latinos were somewhere in the middle. Native Latinos and earlier immigrants were less exposed to rape than Latino immigrants in general and

recent Latino immigrants, respectively. The degrees of exposure to rape of the different groups and the statistical significance of the differences between their means are important findings. However, they are not as relevant for my dissertation objectives as murder or other crimes' statistics.

Rape is a type of crime that should be considered separately from other violent crimes. First, it can be argued that the way rape is operationalized in the UCRs may lead to misclassification issues, i.e., some "rapes" may be classified as criminal assaults because there was no "carnal knowledge" (as previously defined). In addition, rape is often a crime that is not committed in public places, but rather behind closed doors. Given that in this dissertation I am trying to assess the levels of exposure that some minority groups have towards different crimes, residents of a neighborhood may find themselves often unaware of the rapes committed in their areas. For these reasons, exposure to rapes should be interpreted carefully. The type of crime that I will next analyze has more relevance for my dissertation than rape.

Robbery is the third violent crime to be studied here. In the UCR, robbery is defined as "a vicious type of theft in that it is committed in the presence of the victim. The victim [...] is directly confronted by the perpetrator and is threatened with force or is put in fear that force will be used. Robbery involves a theft or larceny but is aggravated by the element of force or threat of force" (Federal Bureau of Investigation 2004:21). In the UCRs, an additional assault or theft was not reported when a robbery was committed. Since robbery is graver than assault or theft, robberies may be considered as more likely to be reported, even in minority communities. Robberies are also, typically, carried out in public places, which make them one of the most relevant types of crimes I am analyzing for reasons already explained.

Table 7 contains the mean indices of interaction with robbery for Blacks, Whites, and four Latino groups. Unlike interaction indices for murder and rape, these and the indices for subsequent types of crimes were calculated on a basis of criminal incidence per 1,000 people.

**Table 7** Descriptive Statistics: Interaction with Robbery for Selected Populations

	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Whites</b>	54	2.463	1.244	0.257	6.326
<b>Blacks</b>	54	4.923	2.5	0.231	10.571
<b>Native-born Hispanics</b>	54	3.835	1.898	0.373	8.388
<b>Latino Immigrants</b>	54	4.099	1.984	0.482	8.937
<b>Recent Latino Immigrants</b>	54	4.275	2.124	0.475	10.217
<b>Earlier Latino Immigrants</b>	54	3.878	1.742	0.462	7.769
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

The interaction indices for the selected populations follow the same patterns as we saw with murder and rape. This is to say, Whites have the most favorable crime statistics and Blacks have the least favorable ones. Native Latinos are less disadvantaged than Latino immigrants and recent immigrants are slightly more disadvantaged than earlier immigrants. The findings related to robbery also support my second hypothesis. Table 3B in appendix B displays the t and p-values for a series of paired two-tailed t-tests of differences between mean interaction with robbery. All differences between means are significant at the 0.05 level, with the exception of the difference between mean interaction with robbery for native-Hispanics and earlier Latino immigrants.

The last violent crime to be analyzed is aggravated assault. Aggravated assault is defined in the UCR as “[a]n unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury. This type of assault usually is accompanied by the use of a weapon or by means likely to produce death or great bodily harm” (Federal Bureau of

Investigation 2004:23). Aggravated assaults are not as relevant given that assaults are often not carried out in public places; as with rape, this type of crime may be committed behind closed doors. However, because it is a serious crime, the existence of significant underreporting is not suspected.

**Table 8** Descriptive Statistics: Interaction with Aggravated Assault for Selected Populations

	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Whites</b>	49	3.349	1.552	0.929	7.805
<b>Blacks</b>	49	7.999	4.72	1.749	25.399
<b>Native-born Hispanics</b>	49	5.482	2.428	1.761	11.096
<b>Latino Immigrants</b>	49	5.825	2.646	1.526	11.175
<b>Recent Latino Immigrants</b>	49	6.106	2.816	1.716	11.515
<b>Earlier Latino Immigrants</b>	49	5.655	2.53	1.835	10.967
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

As expected, with aggravated assaults, the average interaction indices follow the same ranking pattern we have already seen with the other violent crimes. This is, Whites are in the most favorable position in regards to exposure to aggravated assault, followed by native Hispanics and Latino immigrants, and Blacks are in the most disadvantaged position of all the groups. Recent immigrants are slightly more disadvantaged than earlier Latino immigrants in terms of exposure to aggravated assault. All the differences between mean exposure to aggravated assault presented in table 8 were statistically significant at the 0.50 level, except for the differences between earlier Latino immigrants and total Latino immigrants (see table B-4).

#### *4.2.2 Exposure to Property Crimes - Findings*

Now that I have examined and described interaction with violent crimes, I will now turn to the correlation between the segregation of Blacks and Latinos from Whites and their interaction with property crimes. My third hypothesis states that levels of exposure to crime are

expected to be more noticeable for violent crimes than for property crimes. This expectation is based on previous research, namely Bjerk's 2006 article in which it was suggested that disadvantaged neighborhoods have relatively lower property crime rates than their respective violent crime rates because of the existence of fewer "attractive" targets in those areas. In addition, there is a wealth of research that links Black-white segregation to high crime in segregated areas, but this literature refers more specifically to violent crime (Eitle 2009; Lee and Ousey 2005; Peterson and Krivo 1993; Shihadeh and Flynn 1996; Shihadeh and Maume 1997). In general, the evidence presented here will help address my third hypothesis.

Table 9 displays the mean indices of interaction with burglary for the selected populations, calculated for the 54 cities in the NNCS. Relatively speaking, the gap is small between the lowest index of interaction with burglaries and the highest one when compared to violent crimes. Blacks were exposed to roughly 43 percent more burglaries than Whites (recall that Blacks were exposed to 240 percent more murders than Whites). Consistent with findings related to violent crimes (and with my second hypothesis), Whites are the least disadvantaged group in terms of exposure to burglaries, and Blacks are the most disadvantaged one. The interaction of Latinos with burglaries is higher than that of Whites, but lower than that of Blacks. Furthermore, recent Latino immigrants are exposed to slightly more burglaries than earlier immigrants. In addition, all the differences between mean interaction indices were statistically significant at the 0.05 level, except for the difference in the means for Native Latinos and earlier immigrants (see table B-5).

It is important to mention that when a burglary is committed, other property or violent crimes may happen concurrently, but only the most severe will be reported in the UCRs. The UCR guidelines establish the procedure for multiple-offense situations as follows:

As a general rule, a multiple-offense situation requires classifying each of the offenses occurring and determining which of them are Part I

crimes. The Hierarchy Rule requires that when more than one Part I offense is classified, the law enforcement agency must locate the offense that is highest on the hierarchy list and score that offense involved and not the other offense(s) in the multiple-offense situation (Federal Bureau of Investigation 2004:10).

UCR Part I offenses are ranked as follows, starting with the most serious: murder, rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft, and arson (not included in the NNCS). Hence, burglaries are most likely undercounted in the UCR (and NNCS), because some of them may have been committed along with a violent Part I crime.

**Table 9** Descriptive Statistics: Interaction with Burglary for Selected Populations

	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Whites</b>	54	10.385	3.808	3.151	20.192
<b>Blacks</b>	54	14.905	6.065	2.906	27.476
<b>Native-born Hispanics</b>	54	13.002	4.898	3.288	24.349
<b>Latino Immigrants</b>	54	13.631	5.781	3.269	31.025
<b>Recent Latino Immigrants</b>	54	13.933	6.034	3.318	32.353
<b>Earlier Latino Immigrants</b>	54	13.064	5.393	3.052	28.37
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

Another crime to be analyzed is larceny. Larceny is defined as the unlawful taking, carrying, leading, or riding away of property from the possession of another. Larceny includes offenses such as pocket-picking, purse-snatching, shoplifting, thefts from motor vehicles, theft of motor vehicle parts and accessories, theft of bicycles, and theft from buildings, but excludes motor vehicle theft, which is counted in a special category (Federal Bureau of Investigation 2004:31). By definition, larcenies cannot be committed along with a violent offense, unlike burglaries. When larceny is aggravated by the use of force, it becomes a robbery.

Table 10 displays the mean interaction scores with larceny for Blacks, Whites, and the selected Latino populations across all the cities in the sample. For the first time in my analysis, the reported levels of exposure to crime were not as expected. This is, Whites were the group with the lowest exposure to larceny, but Blacks were not the group with the highest interaction index score. Recent Latino immigrants had the highest interaction with larcenies. However, the interaction with larceny of Latinos was only about ten percent higher than that of Whites, and most of the differences between means were not statistically significant. The differences between the mean interaction of Whites and the mean interaction of each of the other groups were statistically significant, except for the difference between mean exposure for Whites and mean exposure for earlier immigrants. Furthermore, with but one exception, none of the paired differences between means for the other groups (Blacks and Latino groups) were statistically significant at the 0.50 level. The only exception was the difference between mean interaction with larceny for earlier immigrants and the mean interaction with larceny for recent immigrants (see table B-6).

**Table 10** Descriptive Statistics: Interaction with Larceny for Selected Populations

	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Whites</b>	54	38.839	11.07	21.927	64.31
<b>Blacks</b>	54	41.836	12.769	19.803	78.955
<b>Native-born Hispanics</b>	54	41.5	11.566	20.209	66.945
<b>Latino Immigrants</b>	54	42.248	13.67	17.085	74.672
<b>Recent Latino Immigrants</b>	54	42.738	14.267	17.437	74.929
<b>Earlier Latino Immigrants</b>	54	40.664	13.134	17.059	72.949
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

The last type of crime to be addressed is motor vehicle theft (MVT). Motor vehicle theft is a special type of larceny that is coded separately “because of the volume of such thefts and the

prevailing need of law enforcement for specific statistics on this offense” (Federal Bureau of Investigation 2004:11).

Table 11 displays the mean interactions with motor vehicle theft for the different groups. As expected, Blacks are considered as the most disadvantaged group and Whites as the one with the most favorable crime exposure statistics. Blacks’ interaction with MVT is more than 50 percent higher than that of Whites. The White-Black interaction index score gap is relatively small when compared to violent crimes. However, it is the largest gap when looking at property crimes only.

**Table 11** Descriptive Statistics: Interaction with Motor Vehicle Theft for Selected Populations

	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Whites</b>	53	7.426	3.272	1.805	16.589
<b>Blacks</b>	53	11.401	4.983	1.768	24.748
<b>Native-born Hispanics</b>	53	10.123	4.375	2.576	20.179
<b>Latino Immigrants</b>	53	10.535	4.697	3.202	21.314
<b>Recent Latino Immigrants</b>	53	10.771	4.766	3.153	22.705
<b>Earlier Latino Immigrants</b>	53	10.212	4.522	2.475	20.807
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

Even when the differences in means between the minority populations are minimal, the levels of interaction are ranked as expected. Specifically, the most favorable crimes statistics belong to Whites, followed by native Latinos, and immigrant Latinos. Blacks are the most disadvantaged in terms of exposure to MVT. Furthermore, recent immigrants are slightly more disadvantaged than earlier immigrants. These differences in means presented in table 11 were small yet statistically significant at the 0.05 level; there were only two exceptions. The differences between Blacks and recent immigrants, and between native Latinos and earlier Latino immigrants were not statistically significant.



Now that I have described my findings regarding to exposure to different crimes, as measured by interaction indices, I will address the relative exposure to these crimes. Namely, I will describe my findings as they relate to over-exposure to crime, as defined in the previous chapter.

### **4.3 Over-exposure to Crime**

Now that I have discussed the levels of interaction with different types of crimes for Whites and for different minority groups, I will describe the relative exposure to crime of these groups using Whites as the group of reference. In addition, I will contrast levels of over-exposure for Latino immigrants by type of destination, i.e., traditional versus non-traditional Latino immigrant destinations.

Table 12 displays the levels of over-exposure of Latino immigrants to the different types of crimes. Recall that over-exposure is defined as the percentage difference between the interaction index score of Whites and the interaction index score of the minorities.

Contrary to what was expected, I found no conclusive evidence to indicate that Latino immigrants are better off in traditional Latino destinations than in non-traditional destinations, in terms of over-exposure to crime. Shihadeh and Barranco (2010) considered that Latino immigrants only lived in safer communities when they settled in traditional Latino immigrant destinations. They stated that “[t]he widely held view that Latinos generally live in safe places is true only for those in traditional [Latino immigrant] destinations” (Shihadeh and Barranco 2010:336). However, when measured in terms of over-exposure, there is no conclusive statistical evidence to support or reject this statement.

**Table 12** Over-exposure to Crime of Latino Immigrants: Violent and Non-violent crimes by Type of Destination

	Non-traditional Destination		Traditional Destination	
	N	Mean	n	Mean
<b>Murder</b>	35	105.28	17	138.67
<b>Rape</b>	33	58.05	15	50.7
<b>Robbery</b>	36	67.83	18	81.99
<b>Aggravated Assault</b>	32	77.08	17	86.49
<b>Burglary</b>	36	31.77	18	27.93
<b>Larceny</b>	36	10.95	18	4.51
<b>Motor Vehicle Theft</b>	35	44.94	18	47.35

Note: None of the differences between means was statistically significant.

In regards to murder, the most relevant type of crime analyzed in this dissertation, Latino immigrants seem to be worse off in traditional destinations than in non-traditional destinations, when looking only at their average over-exposure. Less favorable interaction statistics for Latino immigrants in traditional immigrant destinations were particularly unexpected for murder, given that it is the most severe violent crime in the NNCS, and issues of underreporting are not likely to have produced misleading statistics. The mean over-exposure to murder of Latino immigrants in traditional destinations is roughly 30 percent higher than that of the same group in non-traditional destinations. However, Latino immigrants show better over-exposure statistics (i.e., lower interaction scores) for four types of crimes in traditional destinations when compared to non-traditional destinations.

Latino immigrants had lower over-exposure indices in traditional Latino immigrant destinations than in non-traditional destinations for the crimes of rape, burglary, larceny, and motor vehicle theft, and they had higher over-exposure indices for murder, robbery, and aggravated assault. Latino immigrants were, on average, less over-exposed to all property crimes

in traditional destinations than in non-traditional destinations, but more over-exposed to the violent crimes, with the exception of rape.

Even when the differences between the descriptive statistics of traditional and non-traditional Latino immigrant destinations should be noted, it is important to say that none of the differences between mean over-exposure indices for these types of destinations were statistically different from each other, when tested for significance in a two-tail t-test analysis. For this reason, and given that there is no clear trend in the differences between means, I consider the evidence presented in table 12 as inconclusive in determining whether or not Latino immigrants are less over-exposed to crime in traditional destinations than in non-traditional destinations.

**Table 13** Descriptive Statistics: Over-exposure to Murder for Selected Populations

	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Blacks</b>	52	238.25	189.16	-20.31	837.86
<b>Native-born Hispanics</b>	52	102.06	71.92	0.3	327.86
<b>Latino Immigrants</b>	52	116.2	89.98	-6.5	423.86
<b>Recent Latino Immigrants</b>	52	118.03	85.56	2.25	431.02
<b>Earlier Latino Immigrants</b>	52	124.15	89.01	-30.47	407.69
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

In a separate analysis of over-exposure to murder by minority group, the results were not surprising. Table 13 shows the mean over-exposure to murder for the five minority groups studied. Consistent with previous findings, Blacks were the most disadvantaged (higher interaction indices) group in terms of exposure to crime. Blacks were exposed to 238 percent more murders than Whites, while the next most disadvantaged group, earlier Latino immigrants, was exposed to roughly half as much. Earlier immigrants were exposed to 124 percent more murders than Whites. As anticipated, native-born Latinos had the lowest over-exposure among

the Latino groups. However, recent Latino immigrants had a lower over-exposure index score than earlier Latino immigrants. The over-exposure index score for Latino immigrants (in general) was roughly 13 percent higher than that of native Hispanics. The differences between the means displayed in table 13 are statistically significant at the 0.05 level with three exceptions. The differences between the means of native Latinos and Latino immigrants, Latino immigrants and earlier immigrants, and recent immigrants and earlier immigrants were not statistically significant (see table C-7).

#### **4.4 Social Mobility of Latino Immigrants**

Now that I have presented my findings about exposure to different types of crimes for different minority groups in absolute and relative, i.e., in relation to interaction of Whites, terms, I will present my findings with regard to mobility, as defined in the previous chapter.

My calculated measure of social mobility was defined in terms of residential attainment in relationship to exposure to crime. Census tracts with lower interaction with crime are considered to be more desirable than census tracts with high interaction with crime. The purpose of this mobility measure was to assess the mobility that new immigrants could achieve in a period of 10 years of residence in the United States and how this may have changed from traditional Latino immigrant destinations to non-traditional destinations. This measure was calculated by subtracting the over-exposure of earlier immigrants from the over-exposure of recent immigrants. Thus, if earlier immigrants have significantly lower exposure to crimes than recent immigrants in a given place, it can be said that in that city, immigrants in general experienced significant upward social mobility, as measured by residential attainment.

Table 14 displays the mean mobility scores for the 54 metropolitan areas for the seven crimes in the NNCS. The findings are also presented for two subsets of the sample, traditional Latino immigrant destinations and non-traditional Latino immigrant destinations.

For all crimes, there was some mobility experienced by immigrants in the 10-year period under investigation. The mobility experienced by immigrants had scores as low as 2.10 for murder in non-traditional destinations to 17.62 for robbery in traditional destinations. As expected, immigrants experienced upward mobility for all kinds of crimes.

It is interesting that even when none of the differences in means between traditional and non-traditional immigrants destinations were statistically significant, immigrants seemed to make greater improvements in residential attainment in traditional destinations when dealing with violent crime, but not with regard to property crimes; mobility scores were higher for non-traditional destinations for the three property crimes than for the same crimes in traditional destinations. It is particularly important that the mean mobility score for murder was significantly higher in traditional destinations than in non-traditional destinations, i.e., 13.72 for murder in traditional destinations versus 2.10 in non-traditional destinations.

**Table 14** Social Mobility of Latino Immigrants: Violent and Non-violent crimes by Type of Destination

	Non-traditional Destination		Traditional Destination	
	n	Mean	N	Mean
<b>Murder</b>	34	2.1	18	13.72
<b>Rape</b>	32	10.57	16	11.16
<b>Robbery</b>	35	15.35	19	17.62
<b>Aggravated Assault</b>	31	15.36	18	12.44
<b>Burglary</b>	35	9.05	19	4.74
<b>Larceny</b>	35	5.78	19	4.37
<b>Motor Vehicle Theft</b>	34	9.14	19	7.99
Note: None of the differences between means was statistically significant.				

To complement the evidence presented so far to assess the effect of Latino networks on over-exposure to crimes, in the next sub-section I will present the results the ordinary least squares (OLS) regression and robust regression analyses. Regression analyses were conducted

for only for one type of crime, murder, and only for Latino immigrants. In this part of the analysis, which concludes my analysis at the national level, the over-exposure to murder of Latino immigrants will be my dependent variable, and percent Hispanic, Hispanic dissimilarity from Whites, and “traditional destination” will be my independent variables; total population will be used as a control.

#### 4.5 OLS Regression – Over-exposure

Table 15 displays the results of a regression analysis where I used over-exposure to murder as the dependent variable. This regression model is very simple and was not intended as a means to predict over-exposure to murder rates among immigrants. Rather, it was intended to be used as a tool to test the statistical influence of Latino networks in a city with regard to the over-exposure to murder among Latino immigrants.

Before I start to describe my findings, I should mention that the regression model displayed in table 15 was first examined with respect to the various assumptions of OLS regression; the various regression assumptions were satisfied.

**Table 15** Determinants of Latino Immigrant Over-exposure to Murder in Selected Metropolitan Areas

	OLS Regression <sup>1</sup>		Robust Regression <sup>2</sup>	
	Parameter Estimate	t-statistic	Parameter Estimate	Chi-square
<b>Intercept</b>	-132.78	-2.55*	-102.96	4.65*
<b>Total Population (in 100,000s)</b>	0.69	0.5	1.45	1.3
<b>Latino Immigrant Dissimilarity</b>	4.63	4.65**	3.92	18.44**
<b>Percent Hispanic</b>	-1	-1.2	-0.69	0.83
<b>Traditional Destination</b>	23.16	0.78	-0.7	0
Significance Levels: * = < .05; ** = < .01				
<sup>1</sup> n= 52; R-square=0.37; F-value=6.99**				
<sup>2</sup> n=52 R-square=0.32; AICR=58.94; BICR=71.09				

The model displayed in table 15 included Latino immigrant over-exposure as the dependent variable and four independent variables; the independent variables were total population (in 100,000s), Latino immigrant dissimilarity from Whites, percent Hispanic in the metropolitan area, and the dummy-coded variable “traditional destination.” Percent Hispanic and “traditional destination” were used as measures of the relevance of Latino networks in the city. Including these variables allowed me to test Shihadeh and Barranco’s (2010) idea that the Latino Paradox of Crime only existed in “long-established, well-organized, traditional immigrant communities where Spanish is a modal form of communication” (2010:336).

After finding some significant outliers in the first stages of the analysis, I decided to address the issue of significant outliers by then estimating robust regressions. I present below the results of the OLS regression and the robust regression, even when the results are fairly similar. Robust regressions are used when it is thought that the presence of outliers are producing biased parameter estimates and standard errors. The OLS and robust models to predict over-exposure to murder for Latino immigrants produced an R-square values of 0.37 and 0.32, which indicate that around 37 and 32 percent, respectively, of the variation in the dependent variable can be explained with these models.

Contrary to my expectations, percent Hispanic and “traditional destination” were not statistically significant predictors of over-exposure to murder among Latino immigrants in either regression model. The control variable “population” was also not statistically significant. The only predictor that was statistically significant in both models was Latino immigrant dissimilarity from whites, i.e., D. This independent variable had statistically significant parameter estimates of 4.63 in the OLS regression and 3.92 in the robust regression. This means that, all things equal, for each 0.01 increase in the dissimilarity index, the over-exposure to murder for

Latinos increased on average by 4.63 percent according to the OLS model, and by 3.92 according to the robust model. The findings presented in table 15 reinforce the findings presented in tables 12 and 14. This is to say, it seems that there is no statistically significant difference between traditional and non-traditional immigrant destinations, at least as measured in terms of over-exposure to crime.

The above results conclude the presentation of my findings at the national level. Even when three out of four predictors in my model were not statistically significant, the findings produced are fundamental for answering my major research questions. However, more detailed research is needed, and this will be addressed in the next chapter. In chapter V, I will present my case study findings. These will be tract-level analyses of four selected cities, two traditional destinations and two non-traditional destinations. One city in each group is among the largest in terms of population size in the NNCS, and the other is among the smallest. The cities selected were Los Angeles, California; Washington, D.C.; Toledo, Ohio; and McAllen, Texas.



## **CHAPTER V**

### **CASE STUDIES**

In this second chapter of findings, I present and discuss the case study findings for my four selected cities. As mentioned before, I selected for intensive analysis two traditional-destination cities and two non-traditional-destination cities. One city in each group was among the largest in terms of population size in the NNCS and the other one was among the smallest. The cities selected were Los Angeles, California; Washington, D.C.; Toledo, Ohio; and McAllen, Texas.

In this chapter, I present my findings from the multiple regression equations estimated with tract level data for each of the four cities. The census tracts are being used as proxies for neighborhoods. Variables such as median age and “concentrated disadvantage” were included in the regression models. Also, owing to data limitations, I ended up estimating ordered logistic regression equations.

In general, I found evidence to support the existence of a “paradox” of crime among Latinos in the US. However, contrary to what I expected, I did not find conclusive evidence that the Latino Criminological Paradox “works better” in traditional Latino immigrant destinations than in non-traditional Latino destinations.

#### **5.1 Methodology**

I had originally planned to estimate OLS regression equations for this part of my dissertation research. My original idea was to predict murder rates in census tracts in the selected cities. However, my OLS model did not fit my data. Most census tracts in the four selected cities (and in the whole NNCS in general) have murder rates of zero. This highly skewed dependent variable produced an error distribution that was not statistically normal. Normality in the error

distribution is an important assumption of OLS regression and is necessary in order to produce efficient and unbiased estimates and confidence intervals.

In order to resolve this issue, I calculated several transformations of the dependent variable. The values of the murder rates were transformed using Tukey's Ladder of Transformations, and the transformed variables were then tested for normality. None of the transformations helped to meet the assumption of normality. Hence, I had to consider an alternative method of analysis.

After considering different alternatives, I concluded that non-linear models were the most appropriate. More specifically, a logistic model was selected. The murder rates in the census tracts were predicted using a polytomous logistic regression of ordinal outcomes.

Polytomous logistic regressions of ordinal outcomes, also known as ordered logistic regressions, are used to model categorical dependent variables that are ordinal. Ordinal variables allow for rank order (e.g., low, mid, and high; or 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, etc.) of their values, but these values do not have a quantifiable constant degree of difference between them, i.e., the distance between one value and the next one is unknown, and may well be different from the distance between the second value and the following. Of course, this type of regression would not be appropriate to model homicide rates, which are operationalized as ratio variables. Thus, to proceed with the development of a logistic model to predict murder rates, I transformed my dependent variable.

To convert the scale of murder rates, from the ratio level to the ordinal level of measurement, I recoded the census tract homicide rates into four ranked values, i.e., zero, low, mid, and high homicide rate. For this, I divided the non-zero murder rates of each metropolitan area into their respective tertiles. This way, a new variable for each of the four selected cities was calculated with ranked values from zero to three; "no-murders" was assigned to census tracts with a murder rate of zero, "low" was assigned to census tracts with murder rates that

ranked in the first tertile of that city’s distribution (excluding rates of zero); “mid” for those in the second tertile; and “high” for those in the third tertile, the ones with the highest homicide rates. Table 16 displays descriptive statistics and the tertile distributions of the homicide rates for the four cities studied in this chapter and the full NNCS sample.

**Table 16** Descriptive Statistics of Murder Rates for Census Tracts: Selected Geographies

	<b>NNCS</b>	<b>Washington</b>	<b>Los Angeles</b>	<b>Toledo, OH</b>	<b>McAllen, TX</b>
<b>Census Tracts with Murder Rates &gt; 0</b>					
<b>Tertiles</b>					
<b>3rd</b>	660.4	309.3	190.5	125.8	17.1
<b>2nd</b>	29.4	92	23.2	16.7	8.9
<b>1st</b>	12.3	37.8	10.3	12.4	5.1
<b>min.</b>	2	4.7	2	6.1	3.2
<b>Moments</b>					
<b>N (% of tot.)</b>	4,609 (51.1)	101 (49.0)	676 (59.4)	30 (30.6)	8 (42.1)
<b>Mean</b>	31.1	75.9	22.3	21.4	8.1
<b>Median</b>	18.5	57.1	14.9	15.1	7.4
<b>Std. Deviation</b>	37.5	60.4	20.9	23.5	4.3
<b>Skewness</b>	4.7	1.4	2.7	3.5	1.3
<b>Census Tracts with Murder Rates = 0</b>					
<b>Moments</b>					
<b>N (% of total)</b>	4,403 (48.9)	105 (51.0)	462 (40.6)	68 (69.4)	11 (57.9)

The census tract independent variables in the logistic models were median age, a disadvantage index, and the percentages of Blacks, Latino immigrants, and Native Latinos. The concentrated disadvantage index is part of the original NNCS dataset and was calculated using

the average of the standardized scores of four variables, namely, percent of people in secondary sector low-wage jobs; percent of the population for whom poverty status is determined whose income in 1999 was below the poverty level; percent of civilian labor force age 16-64 who are unemployed or not in the labor force; and percent female-headed households with no husband present. Secondary sector low-wage jobs are defined as jobs in the six occupations with the lowest mean incomes (i.e., health care support; food preparation and serving related occupations; building and grounds cleaning and maintenance; personal care and service; farming, fishing, and forestry; and material moving). This disadvantage index has a Cronbach's Alpha of 0.9, which indicates high internal consistency.

## **5.2 Ordered Logistic Regression – Findings**

Table 17 displays the results of the logistic regression analyses for two subsets of the NNCS, Washington and Los Angeles, the larger cities. McAllen, TX and Toledo, OH could not be analyzed individually, as originally proposed, given the small number of census tracts in those cities. For this reason, the smaller cities, which included a traditional destination and a non-traditional destination, were combined and analyzed together. The findings related to these cities are presented on table 18. In both, table 17 and table 18, I included the “tolerances” for the variables included in the regression model. A tolerance is an indicator of the percent of variance in the independent variable that cannot be accounted for by the other predictors in the model. Hence, very low tolerance values indicate that a problematic level of multicollinearity likely exists in the model. In other words, low tolerances indicate that one or more independent variables are redundant, that is, they are overlapping in their variances.

In my model, percent Black and the Concentrated Disadvantage Index and the percent of Latin Immigrants and native Latinos were relatively highly correlated with somewhat low tolerances. There is a debate in the statistical literature with respect to the cutoff point to assess

when tolerances are problematic. Treiman (2009) considers that low tolerances, in order to be problematic, must be accompanied by a high  $R^2$  for a particular independent variable regressed on all the other independent variables; however, “multicollinearity is not often a problem in the social sciences” because high  $R^2$ s are uncommon in our discipline (108).

**Table 17** Determinants of Murder Rates in Selected Metropolitan Areas: Larger Cities

	Washington <sup>1</sup>			Los Angeles <sup>2</sup>		
	Odds Ratio Estimate	Chi-square	Tolerance	Odds Ratio Estimate	Chi-square	Tolerance
<b>Median Age</b>	0.98	-0.02	0.63	0.99	-0.01	0.89
<b>Percent Black</b>	1.02	0.02*	0.25	1.03	0.03**	0.63
<b>Percent Latin Immigrant</b>	1.03	0.03	0.19	1.01	0.01	0.25
<b>Percent Native Latino</b>	1.01	0.01	0.16	1.02	0.02	0.4
<b>Concentrated Disadvantage</b>	2.19	0.78**	0.28	2.17	0.78**	0.24
Significance Levels: * = < .05; ** = < .01						
<sup>1</sup> N= 206; R-squared=0.32; L <sup>2</sup> =78.7**						
<sup>2</sup> N= 1,137; R-squared=0.30; L <sup>2</sup> =406.82**						

The evidence produced above by my ordered logistic regression models supports my hypotheses and the presence of a Latino Criminological Paradox.

Table 17 shows that in both cities (a traditional destination and a non-traditional destination), Latino concentration (either native or immigrant) in census tracts is not a statistically significant predictor of homicide rates. Both variables, Percent Latin Immigrant and Percent Native Latino, were not significant at the .05 level. However, Percent Black was a

statistically significant predictor of murder rates in census tracts in Washington and Los Angeles after controlling for median age, Latino concentration, and disadvantage. As expected, the NNCS' Concentrated Disadvantage Index was a significant predictor of homicide rates, but median age was not.

In the above tables, I have exponentiated the ordered logit coefficients into odds ratios. I can thus state that with every one-point increase in Percent Black in a census tract, the odds of having higher murder rates were 1.02 greater in Washington and 1.03 greater in Los Angeles, holding all other variables constant. In addition, with every one-point increase in the NNCS concentrated disadvantage index, the odds of having a higher murder rate in a census tract were 2.19<sup>11</sup> greater in Washington and 2.17<sup>12</sup> times greater in Los Angeles, holding the other variables unchanged. As mentioned, Median Age, Percent Latin Immigrant, and Percent Native Latino were not statistically significant predictors of murder rates at the .05 alpha level.

My findings regarding the smaller cities were similar with regard to disadvantage, median age, and Latino concentration. However, Percent Black was not a statistically significant predictor of murder rates. As shown in table 18, the only significant predictor of murder rates at the .05 alpha level was the NNCS Concentrated Disadvantage Index. With every one-point increase in the NNCS concentrated disadvantage index, the odds of having a higher murder rate in a census tract were 2.23<sup>13</sup> greater in McAllen and Toledo combined, holding all other variables constant. It is important to mention that the findings presented in table 18 should be interpreted cautiously because of the small N size.

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<sup>11</sup> The NNCS Concentrated Disadvantage Index ranged from -1.45 to 3.22 in Washington, DC.

<sup>12</sup> The NNCS Concentrated Disadvantage Index ranged from -1.30 to 2.70 in Los Angeles, CA.

<sup>13</sup> The NNCS Concentrated Disadvantage Index ranged from -1.09 to 2.71 in McAllen, TX and Toledo, OH combined.

**Table 18** Determinants of Murder Rates in Selected Metropolitan Areas: Smaller Cities

	McAllen and Toledo <sup>1</sup>		
	Odds Ratio Estimate	Chi-square	Tolerance
<b>Median Age</b>	0.99	-0.02	0.82
<b>Percent Black</b>	1	0	0.34
<b>Percent Latin Immigrant</b>	0.97	-0.03	0.16
<b>Percent Native Latino</b>	1.03	0.03	0.16
<b>Concentrated Disadvantage</b>	2.23	0.80*	0.38
Significance Levels: * = < .05; ** = <.01			
<sup>1</sup> N= 117; R-squared=0.13; L <sup>2</sup> =16.2**			

One of the tenets of the Latino Criminological Paradox is that Latino immigrants do not increase crime in places where they settle. In order to address any potential issues of multicollinearity and to be able to answer this with more confidence, a second model was run for the same cities. This simplified model includes only three independent variables, Median Age, Percent Latin Immigrant, and Concentrated Disadvantage.

**Table 19** Determinants of Murder Rates in Selected Metropolitan Areas: Larger Cities

	Washington <sup>1</sup>			Los Angeles <sup>2</sup>		
	Odds Ratio Estimate	Chi-square	Tolerance	Odds Ratio Estimate	Chi-square	Tolerance
<b>Median Age</b>	1	0	0.91	1	0.27	0.92
<b>Percent Latin Immigrant</b>	1.01	0.32	0.91	1	0.09	0.4
<b>Concentrated Disadvantage</b>	3.53	56.58**	0.99	4.3	137.01**	0.39
Significance Levels: * = < .05; ** = <.01						
<sup>1</sup> n= 206; R-squared=0.30; L <sup>2</sup> =73.34**						
<sup>2</sup> N= 1,137; R-squared=0.26; L2=345.57**						

The results of the simplified model were expected (see table 19). Percent Latin Immigrant and Median Age were not statistically significant predictors of murder rates. Concentrated Disadvantage was significant in both cities, Washington and Los Angeles. In this new model, with every one-point increase in the NNCS concentrated disadvantage index, the odds of having a higher murder rate in a census tract were 3.53 times greater in Washington and 4.30 times greater in Los Angeles, holding the other variables unchanged.

**Table 20** Determinants of Murder Rates in Selected Metropolitan Areas: Smaller Cities

	<b>McAllen and Toledo<sup>1</sup></b>		
	<b>Odds Ratio Estimate</b>	<b>Chi-square</b>	<b>Tolerance</b>
<b>Median Age</b>	0.99	0.12	0.91
<b>Percent Latin Immigrant</b>	1.02	0.73	0.9
<b>Concentrated Disadvantage</b>	2.34	12.24**	0.96
Significance Levels: * = < .05; ** = <.01			
<sup>1</sup> N= 117; R-squared=0.12; L2=14.61**			

Finally, similar inferences can be made for the smaller cities. When this regression model was run for McAllen and Toledo combined, only the Concentrated Disadvantage index was statistically significant (see table 20). In the smaller cities selected, with every one-point increase in the NNCS concentrated disadvantage index, the odds of having a higher murder rate in a census tract were 2.34 greater, holding the other variables unchanged. Again, the results steaming from the analysis of the smaller cities should be interpreted with caution, given the few census tracts in Toledo and McAllen.

With the empirical presentation in this chapter, I conclude the presentation of my findings for the four selected cities. Even though the available data were not ideal for the methodology that was originally proposed, and the alternative methodology had some limitations , the evidence provides support for the presence of the Latino Criminological Paradox. In the next chapter, I will discuss the evidence presented in this and the previous chapter. Then I will



interpret my findings especially as they relate to my hypotheses and general research question. I will also discuss the possible direction of my future research in this area.

## CHAPTER VI

### CONCLUSION AND DISCUSSION OF FUTURE RESEARCH

The increasingly accusatory debate over immigration in post-9/11 America has seemed to elevate the suspicion of foreigners in the United States. This, therefore, has strengthened, in part, the ubiquitous image of the undesirable and criminal immigrant. Owing to such negative stereotypes of immigrants, and the average low socioeconomic status (SES) of Latino immigrants, that the evidence suggesting Latino immigrants' low crime proneness is considered as paradoxical. However, the real paradox here is that Latino immigrants have not been able to fully integrate economically into the American middle class, nor maintain their low levels of criminal offending across generations. As mentioned before, Latino crime proneness increases with each ensuing immigrant generation in the United States. The causes of this, may have been addressed—indirectly—by the Chicago School early in the 1900s.

The idea of the discrimination of immigrants and their ensuing cultural isolation may help understand the Latino Criminological Paradox, and why it fades across generations. Robert Park developed the idea of cultural marginality in his 1928 article, "Human Migration and the Marginal Man." For him, immigrants were the epitome of the Marginal Man—immigrants are hybrid individuals who no longer belong to their home country, nor were they are fully accepted by their host society. The stress related to being more or less of a stranger in both, their home and host societies, lead immigrants to a semi-permanent state of transition and crisis, according to Park.

Park (1928:839) considered that cultural isolation in immigrants tends also to lead to "spiritual instability, intensified self-consciousness, restlessness, and malaise," and to the building of a stronger national identity and stronger social bonds in immigrant communities through an exalted sense of group belonging. The existence of stronger community bonds in

immigrant neighborhoods is something that has been suggested in the classical literature (Park and Burgess 1925; Park 1928; Shaw and McKay 1942), while more contemporary research has linked these strong community bonds to lower crime in immigrant neighborhoods (Ballis 1987; Lee et al. 2001; Martinez and Valenzuela 2006; Martinez 2002; Sampson 2008; Stowell and Martinez 2009).

This way, the ideas developed by Park in the Chicago School can accidentally be the very foundation of the Latino Criminological Paradox. From linking the Chicago School to the Latino Criminological Paradox literature, it seems to be apparent that cultural marginalization may well contribute toward the development of more community building, and achieve lower crime rates in immigrant neighborhoods (as a consequence). If so, it is understandable that the low crime proneness found in immigrants and in immigrant neighborhoods gradually disappears with each generation in the United States. In other words, the low crime proneness of immigrants disappears as cultural marginality is reduced. The positive individual traits that make immigrants less crime prone disappear as immigrants become “more American.” My main concern is that it seems in the Latino experience that cultural marginalization is reduced to some extent, but that Latino immigrants continue to be socioeconomically marginalized. Latino immigrants do not seem to have been able to fully integrate economically with the American middle class; again, I suspect this is due to the negative consequences of living and growing up in a disadvantaged neighborhood.

With the above in mind, I set forth three main objectives for my dissertation: first and foremost, I wanted to assess whether a Latino Paradox in terms of exposure to crime existed; the second objective was to measure the levels of exposure to crime for native and immigrant Latinos, as well as their levels of residential segregation; the last objective was to identify any significant differences in levels of exposure to crime by type of destination, i.e., traditional

Latino immigrant destinations versus non-traditional Latino immigrant destinations. In this final chapter, I will summarize my research and findings, discuss the five hypotheses that I presented in chapter II, and address some limitations of this dissertation, the potential for future research in the area, and some basic policy recommendations. I will first discuss my methodology and my most important findings presented in chapters IV and V.

### **6.1 Summary of Results**

In my dissertation, I studied the Latino Criminological Paradox in terms of exposure to crime. This is, I studied exposure to crime as it relates to the residential segregation of Latinos. Even though Latino criminality has been researched previously and extensively, most studies have focused on either offending (Martinez et al. 2003; Sampson 2008) or victimization (Shihadeh and Barranco 2010) at the individual level. Alternatively, they have focused on the characteristics of communities where Latinos tend to settle, to measure the impact that immigration (Martínez et al. 2008) and residential instability (Stowell and Martinez 2009) have on crime rates. In my dissertation, I measured the exposure to crime of different Latino groups in terms of residential segregation, another important issue in the Latino community. In an attempt to fill this gap in the literature and to test my hypotheses, I calculated segregation indices, ANOVA and t-tests, and multiple regression equations.

When I decided to focus my dissertation research on the study of crime and Latino immigrants, I realized that there were some particular issues I had to keep in mind before starting any kind of statistical analyses. Some researchers have suggested that crime statistics should be interpreted with caution when working with minority populations, due to a suspected significant under-reporting of crimes (Baumer 2002). However, this presumption does not hold for all types of crimes. It has been observed that the seriousness of a crime (as defined by the victims and determined by the police) accounts for most of the variance in whether a crime is reported and

officially recorded (Gove, Hughes, and Geerken 1985). Moreover, it is considered that the Uniform Crime Reports (UCR) are valid indicators of serious crimes such as motor vehicle theft, robbery, burglary, and homicide; but the statistics on larceny, rape, and aggravated assault require a more cautious interpretation (Gove et al. 1985:451). Homicide and robbery are the only violent crimes measured with a high degree of reliability in the UCR, and hence, I decided to focus on them in my dissertation.

My research allowed me to conclude that immigrant Latino communities are, in general, safer than Black communities, even though these groups face similar levels of segregation (see Chapter IV, table 2). The levels of segregation of Blacks and each of the Latino subgroups were shown to be statistically different, except for Blacks and recent Latino immigrants (as determined with a series of t-tests and ANOVA). I also found significant differences within Latino groups. Immigrants were significantly more disadvantaged than native-born Latinos, and recent immigrants were more disadvantaged than earlier immigrants. Recall that in my dissertation I defined disadvantage as having higher segregation and exposure to crime (i.e., higher dissimilarity and interaction indices).

All of the groups studied in my dissertation were moderately segregated from Whites; their D indices ranged from a moderate .413 for native Latinos to a moderately high .591 for Blacks (see Chapter IV, table 2). Based on previous trends (Iceland and Nelson 2008; Iceland et al. 2002), I expected to find that Blacks would be the most segregated group, followed by Latino immigrants, and then native Latinos; this was confirmed in my research. I also found that recent Latino immigrants were more disadvantaged than earlier Latino immigrants.

Surprisingly, when these groups were ranked in terms of exposure to crime, the rank order was almost identical for all crimes. As expected, Blacks were shown to be the most exposed group to murder and robbery, and Whites were the least exposed group to these crimes,

the most serious violent crimes. The exact same pattern was repeated with burglary and motor vehicle theft, the most serious (and reliably measured) property crimes in the NNCS according to Gove and his colleagues (1985). It was remarkable that even when the exposure ranking patterns for all groups for these four crimes were identical, the exposure gap between Whites and Blacks—and even Latinos and Blacks—was wider to a greater degree for violent crimes, than the gaps for property crimes. For example, the index of exposure to burglaries for Blacks was roughly 54 percent higher than that of Whites (see Chapter IV, table 8), while the index of interaction with murders for Blacks was 237percent higher than that of Whites (see Chapter IV, table 4). Bjerk (2006) hypothesized that property crime rates were not as relatively high as violent crime rates in disadvantaged neighborhoods due to the existence of fewer “attractive” targets in those areas; this could explain in part why the Black-White exposure gap is wider for violent crimes than for property crimes.

Even when the Latino groups studied in my dissertation were more segregated and disadvantaged in terms of exposure to crime than Whites, it is apparent that their patterns of exposure to crime are different from those of Blacks. Namely, the return of crime that Blacks and Latinos received given their respective levels of segregation was higher for Blacks, particularly for violent crimes. Previous studies have already made evident the disproportionate high return of violence, particularly homicides, that Blacks received for their level of segregation when compared to other groups (Eitle 2009; Lee and Ousey 2005; Peterson and Krivo 1993; Shihadeh and Flynn 1996; Shihadeh and Maume 1997). The different effects that segregation seems to have on Blacks and on Latinos may also be an indicator of the existence of a Latino Paradox of Crime.

The findings from my case studies, as described in chapter V, also provide support for the existence of the paradox. When I undertook a detailed analysis of Los Angeles, Washington,

Toledo, and McAllen, I found that percent Latino and percent Latino immigrant were not significant predictors of homicide rates at the census tract level. However, higher percentages of Blacks in a census tract significantly predicted higher murder rates in those areas, even after controlling for disadvantage. This was true for large metropolitan areas, while only disadvantage was a significant predictor of murders in smaller cities, not percent Black.

Even though I found evidence to support the existence of a Latino Paradox of Crime, I did not find evidence to support Shihadeh and Barranco's (2010) claim that this paradox only exists in traditional Latino immigrant destinations (at least in terms of exposure to crime). In both of my analyses (the national analysis and case studies), I found no evidence that patterns of exposure to crime for Latinos were different in traditional Latino immigrant destinations and non-traditional destinations.

## **6.2 Hypotheses**

Earlier in my dissertation, I outlined five hypotheses to be tested. These hypotheses dealt with residential segregation of my selected groups, their exposure to crime, and the effect that type of destination had on their crime statistics. I found evidence to support four of my hypotheses. My fifth hypothesis, which dealt with type of destination, was not supported by my findings in regards to crime exposure, and it was even partially countered by my evidence in regards to residential segregation.

My first hypothesis stated that the groups selected would have different levels of residential segregation, and that the groups would be ranked according to their levels of segregation based on Spatial Assimilation and Place Stratification theories. This is, residential segregation patterns would be the result of socioeconomic status and discrimination. As expected, native Latinos were the group the least segregated from Whites, followed by immigrant Latinos and then Blacks. Recent immigrants were more segregated than earlier

immigrants. These patterns of segregation are not surprising, given that they have been identified in previous research on residential segregation (Charles 2000, 2003; Iceland et al. 2002; Massey and Denton 1989) and social mobility, whether intergenerational (Borjas 2006; Kerckhoff et al. 1989) or intragenerational (Borjas 2006).

Even when the Latino Paradox states that every ensuing generation in the United States of Latino immigrants tends to do worse in many health or socioeconomic indicators, in my research, residential segregation patterns did not follow that trend. Latinos showed some degree of mobility (in terms of residential segregation) across generations and within their lifetimes. Previous studies have already found that segregation and socioeconomic disadvantage are typically lower for native Latinos than they are for immigrant Latinos (Borjas 2006; Iceland and Nelson 2008). However, I found that, on average, segregation is also reduced for Latino immigrants about after ten years of residence in the country. Previous research has identified that, overall, Latinos are significantly less segregated than Blacks (Charles 2003). That was found to be true also in my research. However, the pattern varied when looking at specific Latino subgroups. When paired, recent Latino immigrants and Blacks had identical mean dissimilarity scores across the cities in the NNCS sample.

Park and Burgess had already pointed that Chicago immigrants from the early 20th century tended to settle in the most problematic zones of the city, encircled by the zone in transition—which was characterized by its poverty and “underworlds of crime and vice” (Park and Burgess 1925:55)—upon their arrival in the country, but that they aspired to move to the “zone of workingmen’s homes.” Even though both areas were typically inhabited by factory workers, the zone of workingmen’s homes was considered the logical next step in the social ladder for immigrants. Based on the literature that links segregation and crime, it would be expected that lower segregation for Latinos would also translate into lower exposure to crime.



Surprisingly, not only was this generally true in my research, but ranking patterns of levels of exposure to crime were identical to those of segregation.

My second hypothesis stated that trends in the patterns of exposure to crime would be the same as they were for segregation. This is, native Latinos would be the minority group with the most advantageous statistics (i.e., less exposed to crime), followed by immigrant Latinos and then Blacks. Recent immigrants would be more exposed to crime than earlier immigrants. My findings also supported this hypothesis.

I expected that my second hypothesis would be confirmed given the wealth of literature that links residential segregation and crime (Feldmeyer 2010; Holloway and McNulty 2003; Krivo et al. 2009; Massey 1995; O'Flaherty and Sethi 2007); the bulk of those studies suggest that Blacks receive a disproportionately higher return for their level of segregation than other groups (Eitle 2009; Lee and Ousey 2005; Peterson and Krivo 1993; Shihadeh and Flynn 1996; Shihadeh and Maume 1997).

There is evidence that shows that the concentration of Latino immigrants results in safer neighborhoods (Martínez et al. 2008; Sampson 2008; Stowell and Martinez 2009). My findings seem to counter that evidence, given that I found that Latino immigrants are more exposed to crime than native-born Latinos. However, the aforementioned studies have focused on neighborhoods within single cities. In my dissertation, I used census tracts, a much larger geographic unit. Hence, I was not expecting to find that Latino immigrants had lower exposure to crime than native Latinos or Whites.

Census tracts vary greatly in population and territorial size, and they are not as homogeneous as neighborhoods. The typical census tract has a population size between 1,200 and 8,000 people; it is considered that the optimum size for a census tract is 4,000 people, which would be too large when compared to what might be considered a typical neighborhood or

barrio. In addition, the geographic size of census tracts varies widely depending on the density of settlement. Finally, even though census tracts are ideally stable geographic units for statistical comparisons, they often split or merge, depending upon population changes.<sup>14</sup>

For these reasons, it cannot be expected that census tracts can capture the true neighborhood dynamics discussed in the Latino Paradox literature. Examples of this are homogeneity, the existence of an ethnic identity, or high collective efficacy and informal means of social control. Furthermore, previous research has already discussed the limitations of the use of aggregate data from large geographic units to explain the Latino Paradox of Crime (Kposowa et al. 2010:176–177).

My third and fourth hypotheses stated, respectively, that the Latino Paradox would be more noticeable for violent crimes than for property crimes, and that this was expected to be even more noticeable for homicides than for the other crimes. The evidence produced by my research showed this to be true, and that it is particularly noticeable for murders. These findings may be due to the existence of fewer attractive targets for property crimes in minority neighborhoods, as Bjerck (2006) has suggested, or due to artificially low crime rates in minority areas due to the under-reporting of crimes, as previous research has proposed (Baumer 2002). Gove and his colleagues (1985) also mentioned that violent crimes are measured with more reliability in the UCRs than—less serious—property crimes. This under-reporting issue that Baumer (2002) warned about is not such an issue when dealing with serious violent crimes.

Finally, my fifth hypothesis stated that Latino immigrants would have better residential outcomes and higher social mobility in traditional Latino immigrant destinations compared to in

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<sup>14</sup> For more information about US Census' census tracts' definitions and concepts, please see *Geographic Terms and Concepts - Census Tract* at < [http://www.census.gov/geo/reference/gtc/gtc\\_ct.html](http://www.census.gov/geo/reference/gtc/gtc_ct.html)>

non-traditional Latino immigrant destinations. In my dissertation, better residential outcomes refer to lower segregation (as measured by the dissimilarity index) and lower exposure and over-exposure to crime (as measure by interaction indices and my over-exposure scores). I formulated my fifth hypothesis based on previous research that concluded that the Latino Criminological Paradox only existed, or worked best, in traditional Latino immigrant destinations (Martínez et al. 2008; Shihadeh and Barranco 2010). However, in my research, I found no support for this hypothesis. Instead, I found that native Latinos were more segregated in traditional Latino destinations than in non-traditional destinations (see Chapter IV, table 4). Previous research found that Latino segregation increases in places with rapid Hispanic population growth (Charles 2003; Logan 2003; Massey and Denton 1987).

However, the finding that is more relevant for my dissertation is that exposure-to-crime and mobility statistics for Latinos were not significantly different between types of destination. It is important to mention, however, that my dissertation differs methodologically from those studies from which I drew my fifth hypothesis. When Shihadeh and Barranco (2010) concluded that the Latino Paradox only existed in traditional destinations, they were referring to the individual victimization of Latino immigrants. Furthermore, Martinez and his colleagues (2008) found lower rates of violent crimes in “immigrant” neighborhoods in Miami, a traditional destination. However, they did not compare quantitatively multiple traditional and non-traditional destinations. Even when I tested the premise that the Latino Paradox worked best in traditional destinations, my research was methodologically different from that body of literature in which my fifth hypothesis originated. My findings stem from the comparison of two groups of cities (traditional vs non-traditional Latino destinations), not from the comparisons of neighborhoods within one city, or the comparison of a couple of selected traditional and non-traditional destinations.

### **6.3 Potential for Future Research and Limitations**

In my research career, my ultimate goal is to endeavor to explain why the low crime proneness observed in the first generation of Latino immigrants (first noted in Martinez 2002) is not maintained across generations. Why does the cultural assimilation of Latino immigrants translate into more crime? As I have stated before, I suspect that the ultimate cause is residential segregation. But further research is needed in this relatively unexplored topic. In my dissertation, even though I am satisfied with the evidence produced by my research, and with my contribution to the field, there were limitations and room for improvement that can be addressed in future research.

As is often the case, one of the issues that could have been better in my research is data. Data quality has been a vexing problem for statisticians since the very foundation of the discipline. It was John Graunt—one of the founding fathers of statistics and demography—who realized that data must be interpreted cautiously, and that sources of data should be always scrutinized. Data sources have to be always critically analyzed, and data accuracy and reliability not taken for granted. As expected, the National Neighborhood Crime Study (NNCS) dataset—my sole source of crime statistics— is no exception to this rule.

The NNCS was a very ambitious project that involved the cooperation of most police departments located inside the boundaries of 91 cities in 64 metropolitan areas, and 54 Census Metropolitan Statistical Areas/Consolidated Metropolitan Statistical Areas (MSA/CMSA). In most cases, the police departments contributed to this dataset and provided data for seven index crimes within their jurisdiction. Overall, the NNCS is a very complete dataset. However, there are also some missing and imputed data, thus making it not optimal.

Serious crimes are a sensitive topic, and that contributed to the NNCS incompleteness. Due to confidentiality policies, some police departments did not release address-based data for

some crimes (most frequently for rape) to the NNCS investigators. These comprise the missing data in my analysis. In other cases, police departments provided their statistics based on outdated tract boundaries, which warranted some data editing by the NNCS researchers. There were police departments in some cities that did not release any address-based statistics for the NNCS whatsoever. A remarkable consequence of this is the absence of New York City metropolitan area statistics in the NNCS. Findings related to New York City would have been very important in my dissertation, had they been available. It is needless to say that New York may be, historically, the most important immigrant entry point to the country; the metropolitan area with the largest population; and one of the most important current traditional Latino immigrant destinations in the United States.

Not only were my crime data incomplete, my demographic data also had some limitations. Demographic data contained in the NNCS came from the 2000 U.S. Census of Population and Housing Summary File 3 (SF3), a publicly available dataset. In the SF3, missing values for variables such as race, ethnicity, and immigrant status—which were very important in my research—were imputed by the Census Bureau before public release. Missing, edited, and imputed data made the NNCS not perfect. However, this is a dataset of outstanding quality produced under the direction of two respected researchers.

Finally, the geographic units used in my research (i.e., census tracts) were not ideal for my analysis, as I have already noted. Much of the Latino Criminological Paradox theory revolves around the idea of a cohesive immigrant barrio with a common identity, language, and strong community bonds. As mentioned before, census tracts are often too large demographically and spatially to be considered good proxies for neighborhoods, or to capture the essence of homogeneous communities, or neighborhoods. The traits that characterize immigrant Latino communities are often diluted in the mix with neighboring areas. It is also probable that Latino

immigrant neighborhoods have been split in two or more by the drawing of arbitrary boundaries in the tract creating process.

In addition, some partial Census Bureau's MSA/CMSA designations may not be the best units of analysis to use in studies of residential segregation. Burgess noted that the advancements in transportation technology of the early 20th Century set the stage for the development of the concept of "the metropolitan area of the city" (Park and Burgess 1925:49). This means that cities or counties within metropolitan areas are not autonomous areas. Metropolitan areas are urban cores that share a common infrastructure, industry, commercial areas, and housing. Hence, topics such as residential segregation should be studied in metropolitan areas as a whole. However, the MSA/CMSA areas in the NNCS are sometimes incomplete due to data availability issues, and do not represent the idea of full urban-core autonomous units. For example, in the NNCS, there is an MSA/CMSA for the Washington-Alexandria area, but the important cities of Fairfax and Arlington, and complete counties such as Prince George's and Montgomery County were not included; these counties and cities are adjacent to the Washington, D.C. urban core. It is often considered that, in the Washington, D.C. metropolitan area, the highest segregation and crime are concentrated in Prince George's County. Moreover, Montgomery County is also segregated and has low crime and some of the most affluent areas in the whole country.

The classification by type of destination that I used can also be improved. In my dissertation, I used Shihadeh and Barranco's (2010) classification of states by type in 2000. According to this classification, traditional destination cities were those located in the states of California, Texas, New York, Florida, Illinois, Arizona, and New México. Shihadeh and Barranco's 2000 classification was based on the rationale that states that already had a sizeable Latino population in 1990 would contain traditional Latino immigrant destinations. However, I consider that this classification does not always reflect reality. States are not always

homogeneous units in terms of the types of immigrant destinations included within them. This is particularly problematic when using the NNCS. For example, by using the NNCS and Shihadeh and Barranco's (2010) rationale, Buffalo-Niagara Falls-NY is included among the traditional Latino immigrant destinations, because it is located within the New York State boundaries; but New York City is not included in the NNCS. Buffalo, NY should not be classified as a traditional Latino destination if we use their Latino population as a reference. On the other hand, New York City is one of the most important immigrant destinations for Caribbean and other Latino groups.

There is also room for improvement in the methods that I used in my analysis. Indices of segregation have some limitations, especially when dealing with small populations, as has been shown in recent publications (Lee et al. 2008:779; Reardon et al. 2009:56; Wong 1997:130). When segregation indices are calculated for small populations—such is the case of Latino immigrants or Blacks in some cities—, sometimes the results can be highly inaccurate when calculated from the tract level. It is advised to use block-level data when possible. This point relates to the previously mentioned limitation of having to use census tracts as rough proxies for neighborhoods.

In addition, interaction indices allow for the measurement of interaction of only two groups at a time. In this case, I computed indices of interaction for each one of the selected groups (i.e., recent immigrants, Blacks, etc.) and each one of the index crimes included in the NNCS. With the current methodology, it is not possible to know how the concentration of the different groups and of criminal events interact given different racial and ethnic mix levels in the population concentration per census tract, e.g., predominantly Latino immigrant, integrated census tract, etc.

Finally, another issue I faced when conducting my research was that I could not use ordinary least squares (OLS) regression, as I had originally planned. Some of my variables were not normally distributed, which led to a non-normal error term distribution. Accordingly, I had to use an ordered logistic regression; logistic coefficients cannot be interpreted as intuitively as OLS coefficients.

#### **6.4 Policy Recommendations**

The problem of criminality in the United States is not one only of law enforcement. Criminality is deeply embedded in broader social issues such as inequality, racism, and discrimination; the same is true for residential segregation. Even when, as in the Latino Criminological Paradox literature, the low crime proneness of Latino immigrants is stressed, it is also the case that this crime proneness starts to increase in the immigrant second generation. I conclude, based on the findings of my dissertation, that the residential segregation of immigrants accounts for the gradual dilution of the “paradox” across generations. For these reasons, a successful and comprehensive long-term crime reduction plan should also be a social one. In order to meet long-term crime reduction goals, some policies to facilitate social mobility of Latino immigrants (and other minorities) and to reduce their residential segregation need to be implemented.

One area that could be improved in order to reduce segregation and prevent crime is family housing. The adequate allocation of affordable housing for low-income families could well reduce the exposure to crime among the immigrant youth, and hence, reduce the odds of them engaging in criminal behavior in the future. Two strategies that have been successful in reducing the segregation of low-income families into high-crime areas are the creation of mixed-income housing developments and the implementation of rental voucher programs. Mixed income housing may include different types of dwellings, and refers to housing that is priced



based on the housing market for moderate or high-income residents, and priced lower for lower-income residents. Rental voucher programs provide assistance to low-income families to afford safe and sanitary housing that is subsidized by the government. Minority neighborhoods can also be improved to attract more middle-class residents, and hence, develop mixed-income neighborhoods.

Another area of policy concerns immigration. Settlement programs for immigrants—such as those used in other countries or the ones used in the United States for refugees—should be implemented to reduce residential segregation. The implementation of settlement programs for immigrants would help newly arrived families to achieve financial independence and ease their cultural adjustment as soon as possible upon their arrival in the United States. In Canada, for example, newly arrived immigrant families are provided with such amenities as free French or English language assessments and classes, help in finding a job or housing, assistance with their daily life activities such as filling out forms or applications, and with information about community services. The implementation of such policies could increase immigrants' chances of upward social mobility, and lower their exposure to crime.

Finally, existing fair housing and fair lending laws should be properly enforced and enhanced, when necessary. Residential segregation is not only the result of financial constraints or personal preference. Residential segregation also results from discrimination in the housing and lending markets. There are already anti-discrimination laws in place that were created to reduce discrimination and segregation, and the proper enforcement of such laws should reduce crime exposure among Latino immigrants.

## **6.5 Conclusion**

One of the major strengths of my research was its scale. Crime, immigration, and residential segregation are social issues that, to my knowledge, have not been studied

simultaneously at a large national scale. However, the integration of these topics in the literature was long overdue. To me, the completion of my dissertation research is but one indication of the evolution over past decades of the Latino criminality literature.

It has been roughly a quarter century since Land, McCall and Cohen (1990) concluded in their landmark study that deprivation increases homicide. In their analysis, they studied data from 1960 to 1980, and they included in their models percent Black as their only race or ethnicity predictor of homicide rates. This type of model would be hard to defend nowadays, but it was appropriate at that time. By 1980, Hispanics were not commonplace in the criminological literature mainly because their relatively small populations were concentrated only in few cities. It was not until the early 1980s that Latino immigration started to grow drastically and spread over the country. In the next three decades, the Latino immigrant population in the United States tripled in size (U.S. Census Bureau 1980, 1990, 2000, 2010a). This tremendous growth, therefore, made the study conducted by Land and his colleagues (1990) obsolete, and some of their inferences inapplicable to some minority populations.

The changing demographics of the United States created a gap in the criminological literature, which was promptly addressed. Eventually, the Latino Criminological Paradox was discovered. In 2002, Ramiro Martinez published evidence showing that deprivation does not always translate into homicides, and that Latino immigration does not increase homicide rates, as was traditionally thought to be the situation.

Overall, I am very satisfied with my dissertation research. The data analyzed were among the best available; the methodology selected seemed to be the most appropriate; and my findings were consistent with theory across well-measured crimes. Nevertheless, further research in the topic is needed. Ideally, I would like to have conducted my analyses with data from the circa- 2010 period. But as I noted earlier, 2000 was the only year available for the NNCS. I

would have also liked to have included all metropolitan areas in the country, not only the ones in the NNCS, and I would have liked to have tested different definitions of “traditional Latino destination.”

If resources were not an issue, a large scale panel national study of Latino immigrants and their interaction with crime would be priceless. In such a study, longitudinal data could be collected with regard to residential segregation and crime given the relationship between criminal offending and victimization. If those data were available, the process of dilution of the Latino Criminological Paradox across generations might well be better understood and maybe even halted. However, with the knowledge we have available now, there are still many questions to be answered.

What is it that accounts for persistent “hot-spot” neighborhoods where homicides pile up year after year and high homicide rates are a chronic problem? What theoretical explanations best account for the patterns of geographical clustering of violence? Why are Latino immigrants less crime prone than the average American? Are high concentrations of immigrants really protective against crime regardless of the type of destination? And, most important, why does the Latino Criminological Paradox gradually fade with each ensuing generation in the United States? These are the primary questions that need to be answered by future research.

The nature of my research allowed me to work closely with the data and the literature that were supposed to lead criminal and immigration policy in the United States. However, despite the evidence supporting the existence of a Latino Criminological Paradox, the image of the criminal immigrant continues to be exploited over and over again, each time with respect to a different immigrant group. Immigration, social disadvantage, and crime (or the perception of crime) are closely related topics.

The massive body of evidence on the influence of social and economic conditions on crime and violence—and not immigration—has not prevented the criminal justice system from continuing to grow every year. In the United States, criminal justice policy has emphasized enforcement (“get tough”) responses to crime. This approach ignores the evidence showing that crime and violence are deeply embedded social problems which are strongly influenced by poverty-related social and economic factors. Viewed in this way, public safety and crime control may require proactive prevention strategies to alleviate adverse social dynamics and conditions that foster criminal involvement and increase street crime in impoverished neighborhoods. Since effective crime control will probably require changes in social and economic policies more so than in law enforcement, a better understanding of the factors that lead to the geographical patterns of violence and segregation that we see may produce more effective and sensible evidence-based policies.

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## APPENDIX A

<b>Table A-1 Dissimilarity from Whites for Selected Populations by Metropolitan Area</b>						
<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Albuquerque, NM MSA	YES	0.338	0.367	0.619	0.685	0.558
Anchorage, AK MSA	NO	0.38	0.229	0.45	0.508	0.408
Austin-San Marcos, TX MSA	YES	0.59	0.465	0.626	0.663	0.563
Boston-Worcester-Law., MA-NH-ME-CT CMSA	NO	0.696	0.521	0.56	0.558	0.603
Buffalo-Niagara Falls, NY MSA	YES	0.708	0.531	0.474	0.57	0.532
Charlotte-Gastonia-Rock Hill, NC-SC MSA	NO	0.556	0.375	0.583	0.618	0.42
Chicago-Gary-Kenosha, IL-IN-WI CMSA	YES	0.852	0.598	0.652	0.679	0.627
Cincinnati-Hamilton, OH-KY-IN CMSA	NO	0.608	0.369	0.478	0.576	0.469
Cleveland-Akron, OH CMSA	NO	0.741	0.582	0.541	0.609	0.56
Columbus, OH MSA	NO	0.587	0.291	0.5	0.55	0.444
Dallas-Fort Worth, TX CMSA	YES	0.618	0.506	0.646	0.663	0.613
Dayton-Springfield, OH MSA	NO	0.743	0.416	0.424	0.498	0.536
Denver-Boulder-Greeley, CO CMSA	NO	0.656	0.532	0.662	0.666	0.655
Des Moines, IA MSA	NO	0.519	0.319	0.497	0.542	0.516
Detroit-Ann Arbor-Flint, MI CMSA	NO	0.81	0.689	0.851	0.863	0.787
Eugene-Springfield, OR MSA	NO	0.315	0.159	0.358	0.445	0.332
Evansville-Henderson, IN-KY MSA	NO	0.55	0.327	0.573	0.62	0.631
Fort Collins-Loveland, CO MSA	NO	0.427	0.209	0.383	0.469	0.378
Fort Wayne, IN MSA	NO	0.679	0.385	0.586	0.619	0.535
Hartford, CT MSA	NO	0.631	0.401	0.276	0.424	0.486
Houston-Galveston-Brazoria, TX CMSA	YES	0.738	0.513	0.566	0.587	0.547
Jacksonville, FL MSA	YES	0.512	0.235	0.302	0.415	0.288
Kansas City, MO-KS MSA	NO	0.734	0.423	0.587	0.636	0.511
Knoxville, TN MSA	NO	0.562	0.282	0.371	0.466	0.44
Lexington, KY MSA	NO	0.489	0.341	0.53	0.552	0.468
Lincoln, NE MSA	NO	0.357	0.307	0.479	0.515	0.453
Los Angeles-Riverside-O. County, CA CMSA	YES	0.701	0.572	0.657	0.691	0.635
Louisville, KY-IN MSA	NO	0.699	0.347	0.517	0.573	0.552



**Table A-1** Continued

<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Madison, WI MSA	NO	0.415	0.245	0.489	0.535	0.42
McAllen-Edinburg-Mission, TX MSA	YES	0.37	0.318	0.448	0.417	0.463
Memphis, TN-AR-MS MSA	NO	0.671	0.439	0.576	0.593	0.546
Miami-Fort Lauderdale, FL CMSA	YES	0.655	0.528	0.697	0.649	0.651
Milwaukee-Racine, WI CMSA	NO	0.712	0.56	0.755	0.786	0.652
Minneapolis-St. Paul, MN-WI MSA	NO	0.559	0.401	0.58	0.61	0.477
Nashville, TN MSA	NO	0.551	0.399	0.542	0.554	0.503
New Haven-Stamford-Waterbury, CT CMSA	YES	0.556	0.536	0.53	0.565	0.485
Norfolk-VA Beach-Newport News, VA-NC MSA	NO	0.463	0.287	0.334	0.496	0.333
Oklahoma City, OK MSA	NO	0.549	0.39	0.596	0.639	0.562
Phil.-Wilmington-Atl. City, PA-NJ-DE-MD CMSA	NO	0.773	0.673	0.575	0.644	0.616
Phoenix-Mesa, AZ MSA	YES	0.455	0.477	0.638	0.665	0.607
Pittsburgh, PA MSA	NO	0.72	0.423	0.62	0.67	0.599
Portland-Salem, OR-WA CMSA	NO	0.57	0.229	0.418	0.464	0.386
Rockford, IL MSA	YES	0.579	0.362	0.473	0.528	0.416
St. Louis, MO-IL MSA	NO	0.693	0.324	0.443	0.591	0.475
San Antonio, TX MSA	YES	0.493	0.496	0.573	0.594	0.565
San Diego, CA MSA	YES	0.608	0.551	0.659	0.656	0.653
Oakland-Santa Rosa, CA CMSA	YES	0.725	0.533	0.678	0.688	0.654
Seattle-Tacoma-Bremerton, WA CMSA	NO	0.621	0.28	0.489	0.543	0.372
Tampa-St. Petersburg-Clearwater, FL MSA	YES	0.685	0.475	0.55	0.568	0.492
Toledo, OH MSA	NO	0.654	0.401	0.514	0.65	0.502
Topeka, KS MSA	NO	0.45	0.345	0.648	0.72	0.536
Tucson, AZ MSA	YES	0.348	0.46	0.589	0.615	0.574
Waco, TX MSA	YES	0.488	0.404	0.574	0.603	0.58
Washington-Alexandria, DC-VA CMSA	NO	0.765	0.489	0.596	0.633	0.563

Notes: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively. Recent and earlier immigrants refer to those with less than 10 years of residence and those with 10 years or more of residence in the U.S., respectively.

<b>Table A-2 Interaction with Murder for Selected Populations by Metropolitan Area</b>							
<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Albuquerque, NM MSA	YES	6.39	8.33	9.57		15.3	14.05
Anchorage, AK MSA	NO	3.95	7.12	5.98		8.48	9
Austin-San Marcos, TX MSA	YES	3.03	6.06	5.33		7.12	5.7
Boston-Worcester-Law., MA-NH-ME-CT CMSA	NO	3.36	13.24	10.95		8.61	10.22
Buffalo-Niagara Falls, NY MSA	YES	7.82	26.35	13.45		14.6	15.28
Charlotte-Gastonia-Rock Hill, NC-SC MSA	NO	7.3	21.8	12.9		18.74	13.15
Chicago-Gary-Kenosha, IL-IN-WI CMSA	YES	5.27	41.4	17.44	18.43	19.18	17.98
Cincinnati-Hamilton, OH-KY-IN CMSA	NO	7.09	17.96	10.27	11.09	12.93	10.57
Cleveland-Akron, OH CMSA	NO	7.57	18.61	14.07	13.74	13.15	15.23
Columbus, OH MSA	NO	7.67	18.89	10.58	11.47	12.44	9.49
Dallas-Fort Worth, TX CMSA	YES	6.86	22.65	13.85	15.18	15.15	15.03
Dayton-Springfield, OH MSA	NO	10.77	35.41	19.89	13.01	12.03	19.81
Denver-Boulder-Greeley, CO CMSA	NO	6.75	11.17	10.82	12.19	11.96	12.62
Des Moines, IA MSA	NO	3.97	11.67	7.96	7.83	8.14	7.71
Detroit-Ann Arbor-Flint, MI CMSA	NO	9.9	42.83	30.87	32	31.51	33.96
Eugene-Springfield, OR MSA	NO	3.64	2.9	5.34	8.16	8.13	8.21
Evansville-Henderson, IN-KY MSA	NO	5.39	10.07	7.99	7.19	6.08	5.51
Fort Collins-Loveland, CO MSA	NO	0.94	0.8	1.3	1.41	1.48	1.26
Fort Wayne, IN MSA	NO	5.56	24.66	15.24	21.32	20.67	22.05
Hartford, CT MSA	NO	12.37	25.33	12.7	12.62	19.34	19.76
Houston-Galveston-Brazoria, TX CMSA	YES	8.55	15.96	13.05	13.98	14.29	13.55
Jacksonville, FL MSA	YES	7.35	18.11	7.68	7.29	9.68	8.01
Kansas City, MO-KS MSA	NO	6.15	35.51	19.62	22.71	23.41	20.53
Knoxville, TN MSA	NO	3.59	26.28	7.39	6.77	6.9	8.13
Lexington, KY MSA	NO	5.07	14.74	7.76	9.67	10.19	7.1
Lincoln, NE MSA	NO	2.42	3.2	3.16	4.01	4.1	3.17
Los Angeles-Riverside-O. County, CA CMSA	YES	5.34	23.32	14.57	16.25	16.72	16.03
Louisville, KY-IN MSA	NO	5.26	24.02	11.3	4.92	4.77	6.64

**Table A-2 Continued**

<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Madison, WI MSA	NO	2.03	2.44	2.44	2.32	1.84	3.29
McAllen-Edinburg-Mission, TX MSA	YES	3.16	3.09	3.17	3.55	3.58	3.56
Memphis, TN-AR-MS MSA	NO	8.81	23.65	13.54	16.75	17.03	16.75
Miami-Fort Lauderdale, FL CMSA	YES	3.23	30.25	5.65	5.22	6.72	6.45
Milwaukee-Racine, WI CMSA	NO	9.09	38.38	23.96	27.22	27.82	24.93
Minneapolis-St. Paul, MN-WI MSA	NO	6.77	22.43	17.72	20.14	20.68	16.23
Nashville, TN MSA	NO	7.13	23.86	13.03	13.62	14.02	12.02
New Haven-Stamford-Waterbury, CT CMSA	YES	3.53	12.36	12.87	6.69	7	6.17
Norfolk-VA Beach- Newport News, VA-NC MSA	NO	4.72	15.83	6.14	5.24	5.33	5.66
Oklahoma City, OK MSA	NO	5.23	16.24	11.67	15.46	15.89	14.7
Phil.-Wilmington-Atl. City, PA-NJ-DE-MD CMSA	NO	.	.	.	.	.	.
Phoenix-Mesa, AZ MSA	YES	6.44	18.74	18.15	23.81	25.17	21.32
Pittsburgh, PA MSA	NO	5.89	36.46	14.34	5.64	4.09	13.63
Portland-Salem, OR-WA CMSA	NO	4.02	10.31	5.52	5.76	5.7	5.94
Rockford, IL MSA	YES	7.32	19.18	14.44	16.75	16.22	16.76
St. Louis, MO-IL MSA	NO	12.68	59.21	23.64	22.56	28.63	20.72
San Antonio, TX MSA	YES	.	.	.	.	.	.
San Diego, CA MSA	YES	2.98	8.34	6.11	6.55	6.98	6.25
Oakland-Santa Rosa, CA CMSA	YES	3.83	23.81	16.39	20.07	19.45	20.34
Seattle-Tacoma-Bremerton, WA CMSA	NO	3.82	11.16	7.02	7.29	7.54	7.06
Tampa-St. Petersburg-Clearwater, FL MSA	YES	4.98	21.22	9.41	9.65	10.33	10.57
Toledo, OH MSA	NO	3.47	8.55	6.95	6.43	8.84	5.64
Topeka, KS MSA	NO	9.08	25.88	15.88	32.81	33.2	31.28
Tucson, AZ MSA	YES	7.29	9.43	13.05	16.07	16.96	15.44
Waco, TX MSA	YES	3.74	15	8.83	11.45	11.73	11.06
Washington-Alexandria, DC-VA CMSA	NO	6.22	51.01	19.6	18.28	18.19	22.28

Notes: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively. Recent and earlier immigrants refer to those with less than 10 years of residence and those with 10 years or more of residence in the U.S., respectively.

<b>Table A-3 Interaction with Rape for Selected Populations by Metropolitan Area</b>							
<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Albuquerque, NM MSA	YES	4.4	5.9	5.47	7.2	7.82	6.58
Anchorage, AK MSA	NO	5.76	9.94	8.63	12.23	12.21	11.68
Austin-San Marcos, TX MSA	YES	3.34	7.28	5.96	6.8	6.86	6.59
Boston-Worcester-Law., MA-NH-ME-CT CMSA	NO	2.3	6.75	4.48	4.9	5.01	5.54
Buffalo-Niagara Falls, NY MSA	YES	4.33	8.6	7.27	5.6	6.21	5.66
Charlotte-Gastonia-Rock Hill, NC-SC MSA	NO	3.39	7.22	4.91	5.21	5.33	4.66
Chicago-Gary-Kenosha, IL-IN-WI CMSA	YES	.	.	.	.	.	.
Cincinnati-Hamilton, OH-KY-IN CMSA	NO	8.13	13.96	9.32	13.12	14.75	10.53
Cleveland-Akron, OH CMSA	NO	6.77	12.33	11	10.12	9.55	10.58
Columbus, OH MSA	NO	5.72	12.04	7.94	8.32	8.53	7.57
Dallas-Fort Worth, TX CMSA	YES	2.44	6.27	4.67	5.83	6.27	5.14
Dayton-Springfield, OH MSA	NO	10.7	14.29	13.19	12.05	13.15	12.47
Denver-Boulder-Greeley, CO CMSA	NO	4.5	6.63	5.93	6.46	6.41	6.6
Des Moines, IA MSA	NO	3.47	6.32	5.15	6.03	6.02	6.36
Detroit-Ann Arbor-Flint, MI CMSA	NO	3.21	7.48	5.29	5.37	5.6	5.53
Eugene-Springfield, OR MSA	NO	3.31	3.6	3.71	4.79	4.9	5.54
Evansville-Henderson, IN-KY MSA	NO	3.14	6.33	3.72	4.22	4.81	2.5
Fort Collins-Loveland, CO MSA	NO	.	.	.	.	.	.
Fort Wayne, IN MSA	NO	3.21	5.67	4.38	5.5	5.75	4.83
Hartford, CT MSA	NO	3.75	5.78	4.88	4.31	5.08	4.85
Houston-Galveston-Brazoria, TX CMSA	YES	3.06	5.71	4.18	4.32	4.41	4.2
Jacksonville, FL MSA	YES	4.32	8.37	4.25	4.39	4.83	4.56
Kansas City, MO-KS MSA	NO	2.86	7.6	5.56	6.76	7.03	6.04
Knoxville, TN MSA	NO	3.24	7.22	4.11	3.16	2.98	3.63
Lexington, KY MSA	NO	.	.	.	.	.	.
Lincoln, NE MSA	NO	3.3	6.12	5.36	7.89	8.18	6.78
Los Angeles-Riverside-O. County, CA CMSA	YES	0.88	1.38	1.26	0.88	0.86	0.88
Louisville, KY-IN MSA	NO	1.34	3.55	2.31	1.67	1.67	2.04
Madison, WI MSA	NO	3.16	5.63	4.31	5.72	5.9	4.95

**Table A-3 Continued**

<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
McAllen-Edinburg-Mission, TX MSA	YES	0.65	0.77	0.67	0.74	0.7	0.77
Memphis, TN-AR-MS MSA	NO	4.25	9.13	6.25	6.68	6.73	6.36
Miami-Fort Lauderdale, FL CMSA	YES	0.9	3.26	1.73	1.71	1.92	1.77
Milwaukee-Racine, WI CMSA	NO	3.13	8.31	5.36	5.53	5.67	5.24
Minneapolis-St. Paul, MN-WI MSA	NO	8.54	17.59	14.41	16.08	16.31	13.78
Nashville, TN MSA	NO	4.94	10.12	6.55	6.8	7.09	6.56
New Haven-Stamford-Waterbury, CT CMSA	YES	2.41	4.69	4.87	3.18	3.17	3.03
Norfolk-VA Beach-Newport News, VA-NC MSA	NO	1.23	2.12	1.55	1.46	1.78	1.53
Oklahoma City, OK MSA	NO	5.31	8.98	8.51	10.02	10.06	9.48
Phil.-Wilmington-Atl. City, PA-NJ-DE-MD CMSA	NO	.	.	.	.	.	.
Phoenix-Mesa, AZ MSA	YES	2.38	3.46	3.71	4.33	4.53	3.97
Pittsburgh, PA MSA	NO	2.8	6.17	3.94	3.07	3.22	4.12
Portland-Salem, OR-WA CMSA	NO	4.67	6.54	5.58	6.12	6.23	5.91
Rockford, IL MSA	YES	.	.	.	.	.	.
St. Louis, MO-IL MSA	NO	2.03	4.53	3	3.46	4.04	3.18
San Antonio, TX MSA	YES	.	.	.	.	.	.
San Diego, CA MSA	YES	2.52	3.47	3.38	3.64	3.83	3.53
Oakland-Santa Rosa, CA CMSA	YES	4.19	6.94	5.96	6.5	6.59	6.33
Seattle-Tacoma-Bremerton, WA CMSA	NO	2.06	4.07	3.07	3.22	3.24	3.29
Tampa-St. Petersburg-Clearwater, FL MSA	YES	4.88	11.26	6.38	6.41	6.76	6.93
Toledo, OH MSA	NO	3.73	8.05	6.92	6.4	6.18	6.74
Topeka, KS MSA	NO	5.82	8.91	7.33	9.16	9.61	8.36
Tucson, AZ MSA	YES	5.52	6.39	5.83	6.47	6.79	6.27
Waco, TX MSA	YES	6.66	11.07	8.47	9.79	10.12	9.38
Washington-Alexandria, DC-VA CMSA	NO	1.65	3.39	2.19	2.36	2.54	2.17

Notes: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively. Recent and earlier immigrants refer to those with less than 10 years of residence and those with 10 years or more of residence in the U.S., respectively.

<b>Table A-4 Interaction with Robbery for Selected Populations by Metropolitan Area</b>							
<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Albuquerque, NM MSA	YES	3.11	3.86	3.6	4.66	5.07	4.26
Anchorage, AK MSA	NO	1.09	1.85	1.64	2.67	2.6	2.5
Austin-San Marcos, TX MSA	YES	0.96	2.38	1.99	2.63	2.78	2.31
Boston-Worcester-Law., MA-NH-ME-CT CMSA	NO	2.75	5.63	4.58	4.35	4.41	4.72
Buffalo-Niagara Falls, NY MSA	YES	3.75	6.79	6.08	5.2	5.96	5.55
Charlotte-Gastonia-Rock Hill, NC-SC MSA	NO	2.88	7.32	5.25	6.72	7.02	5.09
Chicago-Gary-Kenosha, IL-IN-WI CMSA	YES	2.79	10.09	4.78	4.74	4.89	4.7
Cincinnati-Hamilton, OH-KY-IN CMSA	NO	4.26	8.14	5.77	8.42	9.9	5.27
Cleveland-Akron, OH CMSA	NO	3.71	6.64	6.06	5.3	5.15	5.53
Columbus, OH MSA	NO	3.39	6.79	4.57	5.35	5.62	4.54
Dallas-Fort Worth, TX CMSA	YES	2.19	5.83	4.23	5.25	5.5	4.82
Dayton-Springfield, OH MSA	NO	4.34	8.59	6.58	5.46	5.33	5.57
Denver-Boulder-Greeley, CO CMSA	NO	1.71	2.24	2.06	2.24	2.23	2.27
Des Moines, IA MSA	NO	1.18	2.38	1.78	2.04	2.03	2.17
Detroit-Ann Arbor-Flint, MI CMSA	NO	2.31	8.06	5.63	5.6	5.81	5.99
Eugene-Springfield, OR MSA	NO	1.36	1.45	1.85	2.22	2.31	2.42
Evansville-Henderson, IN-KY MSA	NO	0.88	1.72	1.07	1.11	1.29	0.63
Fort Collins-Loveland, CO MSA	NO	0.26	0.23	0.37	0.48	0.48	0.46
Fort Wayne, IN MSA	NO	1.95	3.74	3.24	4.21	4.17	4
Hartford, CT MSA	NO	6.33	6.86	6.97	6.57	6.66	6.08
Houston-Galveston-Brazoria, TX CMSA	YES	3.48	4.87	4.58	5.03	5.24	4.78
Jacksonville, FL MSA	YES	2.01	4.75	2.1	2.18	2.94	2.42
Kansas City, MO-KS MSA	NO	1.97	4.87	4.32	5.36	5.69	4.45
Knoxville, TN MSA	NO	2.57	4.89	3.56	3.25	3.28	3.11
Lexington, KY MSA	NO	1.76	4.01	2.6	3.07	3.2	2.45
Lincoln, NE MSA	NO	0.59	0.93	0.82	1.13	1.22	0.96
Los Angeles-Riverside-O. County, CA CMSA	YES	2.4	5.47	3.67	4.17	4.4	4.04
Louisville, KY-IN MSA	NO	2.59	5.67	4.29	2.35	2.05	3.68
Madison, WI MSA	NO	1.14	2.53	1.69	2.36	2.4	2.09

**Table A-4 Continued**

<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
McAllen-Edinburg-Mission, TX MSA	YES	0.89	0.85	1.03	1.21	1.2	1.22
Memphis, TN-AR-MS MSA	NO	4.18	6.99	5.54	6.6	6.65	6.26
Miami-Fort Lauderdale, FL CMSA	YES	1.32	5.37	2.35	2.51	2.68	2.6
Milwaukee-Racine, WI CMSA	NO	3.14	7.82	5.34	6	6.25	5.35
Minneapolis-St. Paul, MN-WI MSA	NO	3.71	8.25	6.76	8.13	8.19	7.02
Nashville, TN MSA	NO	2.75	6.5	4.16	4.19	4.32	3.86
New Haven-Stamford-Waterbury, CT CMSA	YES	1.87	4.78	4.81	3.15	3.3	2.63
Norfolk-VA Beach-Newport News, VA-NC MSA	NO	1.4	2.56	1.63	1.45	1.72	1.56
Oklahoma City, OK MSA	NO	1.62	3.07	2.54	2.93	2.97	2.86
Phil.-Wilmington-Atl. City, PA-NJ-DE-MD CMSA	NO	4.19	7.1	8.39	6.82	6.5	6.19
Phoenix-Mesa, AZ MSA	YES	1.68	3.3	3.52	4.43	4.65	4.03
Pittsburgh, PA MSA	NO	3.21	6.58	4.95	3.8	4.58	4.63
Portland-Salem, OR-WA CMSA	NO	2.18	3.54	2.47	2.47	2.53	2.4
Rockford, IL MSA	YES	3.11	4.72	4.49	5.01	4.92	4.92
St. Louis, MO-IL MSA	NO	5.47	10.57	7.35	8.94	10.22	7.77
San Antonio, TX MSA	YES	0.97	1.73	1.59	1.97	2.11	1.89
San Diego, CA MSA	YES	1.2	1.93	1.85	2.03	2.14	1.95
Oakland-Santa Rosa, CA CMSA	YES	2.15	5.4	4.06	4.57	4.61	4.5
Seattle-Tacoma-Bremerton, WA CMSA	NO	1.94	4.33	3.08	3.15	2.91	3.35
Tampa-St. Petersburg-Clearwater, FL MSA	YES	4.04	10.05	7.23	7.65	7.78	7.68
Toledo, OH MSA	NO	2.76	5.1	4.34	4.11	4.14	4.46
Topeka, KS MSA	NO	2.67	4.68	3.58	4.71	4.99	4.19
Tucson, AZ MSA	YES	2.25	3.02	3.27	3.76	3.91	3.65
Waco, TX MSA	YES	1.48	3.05	2.22	2.77	2.93	2.6
Washington-Alexandria, DC-VA CMSA	NO	3.11	5.98	4.83	4.92	5.06	5.03

Notes: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively. Recent and earlier immigrants refer to those with less than 10 years of residence and those with 10 years or more of residence in the U.S., respectively.

<b>Table A-5 Interaction with Aggravated Assault for Selected Populations by Metropolitan Area</b>							
<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>White</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Albuquerque, NM MSA	YES	5.32	7.48	7.52	10.46	11.33	9.59
Anchorage, AK MSA	NO	.	.	.	.	.	.
Austin-San Marcos, TX MSA	YES	1.65	4.37	3.57	4.29	4.37	4.04
Boston-Worcester-Law., MA-NH-ME-CT CMSA	NO	4.71	11.5	9.45	8.79	8.91	9.48
Buffalo-Niagara Falls, NY MSA	YES	3.95	8.27	6.83	5.33	6	5.86
Charlotte-Gastonia-Rock Hill, NC-SC MSA	NO	4.65	13.52	7.44	9.01	9.29	7.38
Chicago-Gary-Kenosha, IL-IN-WI CMSA	YES	2.89	16.13	6.24	6.02	6.18	6.03
Cincinnati-Hamilton, OH-KY-IN CMSA	NO	1.46	3.43	2.27	4.06	4.76	1.92
Cleveland-Akron, OH CMSA	NO	3.21	5.68	4.44	4.39	4	4.52
Columbus, OH MSA	NO	2.19	5.12	3.01	3.15	3.34	2.7
Dallas-Fort Worth, TX CMSA	YES	3	8.76	5.5	6.1	6.15	5.96
Dayton-Springfield, OH MSA	NO	2.89	6.34	4.44	3.94	3.98	4.25
Denver-Boulder-Greeley, CO CMSA	NO	1.91	3.31	3.17	3.53	3.49	3.61
Des Moines, IA MSA	NO	1.26	2.79	2.16	2.57	2.59	2.62
Detroit-Ann Arbor-Flint, MI CMSA	NO	5.93	13.45	10.99	11.03	11.36	10.97
Eugene-Springfield, OR MSA	NO	3.38	3.28	3.59	4.51	4.72	4.84
Evansville-Henderson, IN-KY MSA	NO	2.68	5.84	3.08	3.65	4.16	2.18
Fort Collins-Loveland, CO MSA	NO	1.79	1.75	2.26	2.2	2.24	2.18
Fort Wayne, IN MSA	NO	0.93	2.66	1.8	2.39	2.38	2.27
Hartford, CT MSA	NO	3.35	5.99	4.69	3.8	4.74	4.63
Houston-Galveston-Brazoria, TX CMSA	YES	3.93	9.41	6.16	6.4	6.48	6.29
Jacksonville, FL MSA	YES	4.66	11.76	4.71	4.34	5.62	4.72
Kansas City, MO-KS MSA	NO	3.37	13.37	8.88	11.16	11.51	10.01
Knoxville, TN MSA	NO	5.23	12.81	7.16	6.58	6.84	5.86
Lexington, KY MSA	NO	.	.	.	.	.	.
Lincoln, NE MSA	NO	3.81	6.61	5.91	8.11	8.28	7.52
Los Angeles-Riverside-O. County, CA CMSA	YES	4.1	10.73	7.7	8.71	9.08	8.5



**Table A-5 Continued**

<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>White</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Louisville, KY-IN MSA	NO	1.87	4.88	3.08	2.34	2.22	2.86
Madison, WI MSA	NO	1.36	2.69	1.87	2.55	2.65	2.14
McAllen-Edinburg-Mission, TX MSA	YES	2.19	2.14	2.44	2.78	2.76	2.79
Memphis, TN-AR-MS MSA	NO	3.75	9.59	5.59	6.19	6.29	6.03
Miami-Fort Lauderdale, FL CMSA	YES	1.71	2.02	2.87	3.58	3.52	3.34
Milwaukee-Racine, WI CMSA	NO	1.81	6.53	3.99	4.43	4.59	4
Minneapolis-St. Paul, MN-WI MSA	NO	.	.	.	.	.	.
Nashville, TN MSA	NO	7.81	17.99	11.1	11.17	11.47	10.58
New Haven-Stamford-Waterbury, CT CMSA	YES	2.14	6.45	5.93	3.9	4.08	3.34
Norfolk-VA Beach- Newport News, VA-NC MSA	NO	1.34	4.08	1.76	1.53	1.72	1.84
Oklahoma City, OK MSA	NO	.	.	.	.	.	.
Phil.-Wilmington-Atl. City, PA-NJ-DE-MD CMSA	NO	3.73	8.3	9.17	6.93	6.64	6.45
Phoenix-Mesa, AZ MSA	YES	2.59	4.85	5	6.05	6.31	5.59
Pittsburgh, PA MSA	NO	2.61	7.99	4.95	2.36	2.88	4.03
Portland-Salem, OR-WA CMSA	NO	5.91	10.77	7.5	8.49	8.64	8.17
Rockford, IL MSA	YES	3.93	9.47	6.92	7.27	7.05	7.36
St. Louis, MO-IL MSA	NO	6.12	17.23	9	9.64	11.43	8.95
San Antonio, TX MSA	YES	.	.	.	.	.	.
San Diego, CA MSA	YES	3.13	5.88	5.47	6.25	6.63	5.96
Oakland-Santa Rosa, CA CMSA	YES	2.49	7.52	5.82	6.73	6.69	6.65
Seattle-Tacoma-Bremerton, WA CMSA	NO	3.3	6.64	5.29	6.5	6.28	6.18
Tampa-St. Petersburg-Clearwater, FL MSA	YES	7.08	25.4	9.49	8.21	10.3	9.79
Toledo, OH MSA	NO	2.71	6.4	5.06	4.76	4.74	5.18
Topeka, KS MSA	NO	4.04	7.9	6.41	9.68	10.25	8.62
Tucson, AZ MSA	YES	4.3	5.83	6.41	7.57	7.96	7.29
Waco, TX MSA	YES	3.46	7.55	5.15	6.32	6.45	6.14
Washington-Alexandria, DC-VA CMSA	NO	2.48	9.49	5.39	5.7	5.88	5.91

Notes: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively. Recent and earlier immigrants refer to those with less than 10 years of residence and those with 10 years or more of residence in the U.S., respectively.

<b>Table A-6 Interaction with Burglary for Selected Populations by Metropolitan Area</b>							
<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Albuquerque, NM MSA	YES	13.75	16.25	15.96	18.97	19.67	18.24
Anchorage, AK MSA	NO	5.38	6.32	6.13	8.25	8.28	7.83
Austin-San Marcos, TX MSA	YES	8.38	12.3	11.35	12.47	12.59	12.12
Boston-Worcester-Law., MA-NH-ME-CT CMSA	NO	6.48	7.15	8.16	7.24	7.15	6.74
Buffalo-Niagara Falls, NY MSA	YES	12.27	16.35	17.56	14.78	15.08	14.38
Charlotte-Gastonia-Rock Hill, NC-SC MSA	NO	16.46	23.39	17.71	18.47	18.85	16.92
Chicago-Gary-Kenosha, IL-IN-WI CMSA	YES	6.81	11.51	8.6	8.13	8.04	8.23
Cincinnati-Hamilton, OH-KY-IN CMSA	NO	13.34	18.86	15.54	19.65	21.36	13.94
Cleveland-Akron, OH CMSA	NO	12.38	15.86	16.78	15.17	15.1	14.93
Columbus, OH MSA	NO	17.34	27.48	20.57	21.47	22.17	19.37
Dallas-Fort Worth, TX CMSA	YES	10.51	18.62	13.86	14.49	14.42	14.5
Dayton-Springfield, OH MSA	NO	20.19	26.86	24.35	25.52	25.61	25.52
Denver-Boulder-Greeley, CO CMSA	NO	9.09	10.23	9.82	10.26	10.24	10.32
Des Moines, IA MSA	NO	6.85	9.8	8.88	9.58	9.57	9.85
Detroit-Ann Arbor-Flint, MI CMSA	NO	7.66	16.6	15.14	15.86	16.21	15.19
Eugene-Springfield, OR MSA	NO	10.47	11.22	11.52	13.2	13.82	13.27
Evansville-Henderson, IN-KY MSA	NO	8.83	13.69	9.98	10.36	11.09	7.73
Fort Collins-Loveland, CO MSA	NO	5.86	5.82	6.56	6.92	6.92	6.98
Fort Wayne, IN MSA	NO	7.11	13.69	11.51	13.84	13.87	13.04
Hartford, CT MSA	NO	14.29	11.16	14.06	14.13	12.3	10.8
Houston-Galveston-Brazoria, TX CMSA	YES	10.73	14.8	12.71	12.74	12.73	12.73
Jacksonville, FL MSA	YES	10.84	18.73	10.76	10.35	12.62	10.79
Kansas City, MO-KS MSA	NO	9.53	21.76	16.63	18.77	19.21	17.22
Knoxville, TN MSA	NO	9.57	12.34	11.06	10.88	11.05	9.98
Lexington, KY MSA	NO	9.35	14.57	11.33	11.18	11.25	10.89
Lincoln, NE MSA	NO	8.32	12.01	10.83	13.34	13.54	12.73
Los Angeles-Riverside-O. County, CA CMSA	YES	6.47	8.34	6.58	6.29	6.29	6.3
Louisville, KY-IN MSA	NO	9.4	15.53	12.55	9.43	9.11	11.34

**Table A-6 Continued**

<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Madison, WI MSA	NO	6.16	7.92	6.6	7.71	7.91	7.06
McAllen-Edinburg-Mission, TX MSA	YES	12.36	11.65	12.52	13.05	13.14	13.02
Memphis, TN-AR-MS MSA	NO	15.74	24.72	19.1	20.78	20.82	20.36
Miami-Fort Lauderdale, FL CMSA	YES	7.07	17.83	9.43	9.73	10.3	10.11
Milwaukee-Racine, WI CMSA	NO	8.67	14.22	11.45	11.61	11.79	11.11
Minneapolis-St. Paul, MN-WI MSA	NO	12.33	16.07	14.31	14.38	14.36	14.39
Nashville, TN MSA	NO	12.67	16.95	14.04	14.31	14.53	13.78
New Haven-Stamford-Waterbury, CT CMSA	YES	7.82	12.04	13.25	8.71	8.84	8.4
Norfolk-VA Beach-Newport News, VA-NC MSA	NO	5.66	8.11	5.99	5.53	6.07	5.79
Oklahoma City, OK MSA	NO	12.63	19.33	18.02	20.62	20.84	19.94
Phil.-Wilmington-Atl. City, PA-NJ-DE-MD CMSA	NO	6.2	7.36	8.5	7.61	7.37	6.94
Phoenix-Mesa, AZ MSA	YES	10.65	13.23	13.2	14.37	14.68	13.77
Pittsburgh, PA MSA	NO	8.36	12.12	10.92	9.88	11.15	10
Portland-Salem, OR-WA CMSA	NO	10.05	12.71	10.83	11.08	11.15	10.88
Rockford, IL MSA	YES	17.23	22.63	21.05	22.1	21.96	21.56
St. Louis, MO-IL MSA	NO	18.16	25.74	21.6	24.1	26.96	22.25
San Antonio, TX MSA	YES	8.05	11.02	10.07	11.03	11.45	10.8
San Diego, CA MSA	YES	5.74	5.57	5.63	5.35	5.51	5.32
Oakland-Santa Rosa, CA CMSA	YES	6.38	10.14	8.51	8.87	8.74	8.98
Seattle-Tacoma-Bremerton, WA CMSA	NO	9.57	13.14	11.91	11.58	11.24	11.72
Tampa-St. Petersburg-Clearwater, FL MSA	YES	14.21	24.21	20.03	20.38	21.08	20.03
Toledo, OH MSA	NO	14.2	23.88	22	22.08	22.28	21.82
Topeka, KS MSA	NO	16.97	27.02	22.88	31.02	32.35	28.37
Tucson, AZ MSA	YES	12.18	13.3	13.6	14.61	15.27	14.2
Waco, TX MSA	YES	10.95	19.8	16.87	20.56	21.14	19.9
Washington-Alexandria, DC-VA CMSA	NO	3.15	2.91	3.29	3.27	3.32	3.05

Notes: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively. Recent and earlier immigrants refer to those with less than 10 years of residence and those with 10 years or more of residence in the U.S., respectively.

<b>Table A-7 Interaction with Larceny for Selected Populations by Metropolitan Area</b>							
<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Albuquerque, NM MSA	YES	51.33	55.28	51.96	52.42	52.08	52.73
Anchorage, AK MSA	NO	28.21	35.89	35.69	48.16	44.6	47.33
Austin-San Marcos, TX MSA	YES	36.02	42.64	41.09	45.82	47.8	41.87
Boston-Worcester-Law., MA-NH-ME-CT CMSA	NO	29.77	24.09	28.94	27.14	25.8	23.84
Buffalo-Niagara Falls, NY MSA	YES	27.79	26.82	31.89	31.17	32.57	29.2
Charlotte-Gastonia-Rock Hill, NC-SC MSA	NO	45.93	58.77	52.25	51.49	52.54	47.24
Chicago-Gary-Kenosha, IL-IN-WI CMSA	YES	30.31	36.98	25.07	23.19	22.95	23.45
Cincinnati-Hamilton, OH-KY-IN CMSA	NO	38.49	39.94	40.11	56.12	64.79	33.83
Cleveland-Akron, OH CMSA	NO	30.43	27.59	24.84	23.75	22.34	23.71
Columbus, OH MSA	NO	47.55	52.8	50.44	54.38	54.75	49.74
Dallas-Fort Worth, TX CMSA	YES	36.77	42.44	38.63	39.71	40.03	39.26
Dayton-Springfield, OH MSA	NO	47.65	43.44	50.16	48.46	50.42	42.2
Denver-Boulder-Greeley, CO CMSA	NO	24.49	19.8	23.35	22.28	21.72	23.78
Des Moines, IA MSA	NO	44.63	48.77	49.66	51.36	49.76	53.73
Detroit-Ann Arbor-Flint, MI CMSA	NO	24.57	31.6	26.13	24.78	25.31	26.83
Eugene-Springfield, OR MSA	NO	48.98	48.72	55.67	55.1	55.99	63.86
Evansville-Henderson, IN-KY MSA	NO	33.36	34.78	40.08	36.47	35.57	28.98
Fort Collins-Loveland, CO MSA	NO	26.56	28.4	31.29	31.04	31.4	30.53
Fort Wayne, IN MSA	NO	32.95	38.81	38.38	47.7	49.34	41.81
Hartford, CT MSA	NO	57.1	39.22	49	49.16	41.98	37.53
Houston-Galveston-Brazoria, TX CMSA	YES	49.6	33.99	35.38	33.99	34.36	33.78
Jacksonville, FL MSA	YES	35.52	46	35	37.94	43.16	38.92
Kansas City, MO-KS MSA	NO	40.19	52.17	51.25	54.47	56.9	47.41
Knoxville, TN MSA	NO	35.25	33.99	44.56	39.41	38.65	38.45
Lexington, KY MSA	NO	30.48	37.64	36.79	36.78	36.51	37.12
Lincoln, NE MSA	NO	44.34	57.59	53	64.19	67.6	59.16
Los Angeles-Riverside-O. County, CA CMSA	YES	21.93	22.32	20.36	18.76	19.03	18.74
Louisville, KY-IN MSA	NO	29.76	30.49	36.56	23.77	20.95	37.93
Madison, WI MSA	NO	24.11	31.17	25.48	29.42	30.57	24.38

**Table A-7 Continued**

<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
McAllen-Edinburg-Mission, TX MSA	YES	53.25	40.06	50.4	54.82	52.53	56.26
Memphis, TN-AR-MS MSA	NO	41.35	33.63	36.83	36.79	36.89	38
Miami-Fort Lauderdale, FL CMSA	YES	27.07	34.13	28.94	30.2	30.17	30.19
Milwaukee-Racine, WI CMSA	NO	37.96	49.34	38.36	38.86	39.46	37.67
Minneapolis-St. Paul, MN-WI MSA	NO	36.45	42.58	41.75	42.68	41.51	41.23
Nashville, TN MSA	NO	46.87	47.31	48.77	47.84	48.39	46.28
New Haven-Stamford-Waterbury, CT CMSA	YES	26.61	37.32	42.45	30.74	30.56	28.35
Norfolk-VA Beach-Newport News, VA-NC MSA	NO	30.62	37.65	33.07	32.05	37.32	30.96
Oklahoma City, OK MSA	NO	60.88	55.67	66.49	64.78	63.74	66.12
Phil.-Wilmington-Atl. City, PA-NJ-DE-MD CMSA	NO	26.75	26.18	28.12	27.8	26.42	25.28
Phoenix-Mesa, AZ MSA	YES	37.2	41.52	41.75	43.57	44.75	41.58
Pittsburgh, PA MSA	NO	27.49	34.98	40.6	32.87	37.47	30.14
Portland-Salem, OR-WA CMSA	NO	45.44	46.06	44.26	40.56	40.88	40.43
Rockford, IL MSA	YES	54.95	47.98	51.83	52.93	52.4	54.49
St. Louis, MO-IL MSA	NO	58.73	78.95	60.93	68.31	73.37	60.07
San Antonio, TX MSA	YES	47.69	51.22	47.15	49.31	50.83	48.52
San Diego, CA MSA	YES	22.48	20.16	20.21	17.08	17.44	17.06
Oakland-Santa Rosa, CA CMSA	YES	25.83	29.85	29.03	30.39	30.68	29.83
Seattle-Tacoma-Bremerton, WA CMSA	NO	43.35	55.01	52.73	50.77	46.54	53.16
Tampa-St. Petersburg-Clearwater, FL MSA	YES	42.54	60.45	56.16	61.93	61.79	59.27
Toledo, OH MSA	NO	45.12	46.49	42.48	42.56	43.77	44.02
Topeka, KS MSA	NO	64.31	76.01	66.94	74.67	74.93	72.95
Tucson, AZ MSA	YES	54.34	57.63	59.45	63.28	64.51	62.48
Waco, TX MSA	YES	50.91	56.42	52.84	54.68	58.51	50.73
Washington-Alexandria, DC-VA CMSA	NO	35.07	30.37	36.46	33.46	33.55	33.46

Notes: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively. Recent and earlier immigrants refer to those with less than 10 years of residence and those with 10 years or more of residence in the U.S., respectively.

<b>Table A-8 Interaction with Motor Vehicle Theft for Selected Populations by Metropolitan Area</b>							
<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Albuquerque, NM MSA	YES	8.86	11.45	10.66	12.83	13.51	12.13
Anchorage, AK MSA	NO	.	.	.	.	.	.
Austin-San Marcos, TX MSA	YES	2.96	6.04	4.98	6.44	6.83	5.65
Boston-Worcester-Law., MA-NH-ME-CT CMSA	NO	8.73	14.8	13.46	13.27	12.94	13.61
Buffalo-Niagara Falls, NY MSA	YES	9.2	11.25	10.36	9.79	9.94	9.84
Charlotte-Gastonia-Rock Hill, NC-SC MSA	NO	5.79	11.36	8.91	10.61	10.94	8.79
Chicago-Gary-Kenosha, IL-IN-WI CMSA	YES	5.7	12.3	8.89	8.41	8.23	8.55
Cincinnati-Hamilton, OH-KY-IN CMSA	NO	4.93	8.81	6.07	6.62	7.35	6.51
Cleveland-Akron, OH CMSA	NO	9.98	14.62	14.18	12.46	12.82	12.74
Columbus, OH MSA	NO	8.46	14.25	10.49	10.88	11.19	9.9
Dallas-Fort Worth, TX CMSA	YES	6.66	13.56	11.54	12.93	13.2	12.44
Dayton-Springfield, OH MSA	NO	14.93	24.17	18.79	18.54	18.68	19.24
Denver-Boulder-Greeley, CO CMSA	NO	8.58	11.31	12.35	13.18	13.04	13.4
Des Moines, IA MSA	NO	4.01	6.06	5.44	6.08	6.11	6.14
Detroit-Ann Arbor-Flint, MI CMSA	NO	9.03	22.52	20.18	20.96	21.41	20.81
Eugene-Springfield, OR MSA	NO	5.15	5.38	5.93	6.68	6.99	6.78
Evansville-Henderson, IN-KY MSA	NO	3.44	4.55	3.93	3.45	3.68	2.48
Fort Collins-Loveland, CO MSA	NO	1.81	1.77	2.58	3.2	3.15	3.14
Fort Wayne, IN MSA	NO	4.96	8.45	7.3	9.23	9.36	8.57
Hartford, CT MSA	NO	14.44	14.96	13.9	13.72	14.27	13.24
Houston-Galveston-Brazoria, TX CMSA	YES	9.53	11.17	11.57	12.22	12.64	11.71
Jacksonville, FL MSA	YES	5.23	9.44	5.24	5.11	6.57	5.55
Kansas City, MO-KS MSA	NO	7.74	16.59	16.93	20.61	21.73	17.55
Knoxville, TN MSA	NO	7.85	10.02	10.25	9.51	9.59	8.56
Lexington, KY MSA	NO	3.09	5.62	4.11	4.69	4.79	4.19
Lincoln, NE MSA	NO	2.17	3.36	3.17	4.26	4.32	4.02
Los Angeles-Riverside-O. County, CA CMSA	YES	6.85	8.88	7.94	7.6	7.6	7.63
Louisville, KY-IN MSA	NO	5.03	14.17	8.66	5.65	5.45	6.89

**Table A-8 Continued**

<b>MSA/CMSA</b>	<b>Trad. Dest.</b>	<b>Whites</b>	<b>Blacks</b>	<b>Native Latino</b>	<b>Latino Immigrant</b>	<b>Recent Latino Immigrant</b>	<b>Earlier Latino Immigrant</b>
Madison, WI MSA	NO	2.92	4.43	3.71	4.59	4.72	4.03
McAllen-Edinburg-Mission, TX MSA	YES	8.04	5.84	7.28	7.74	7.37	7.98
Memphis, TN-AR-MS MSA	NO	11.32	13	12.68	13.71	13.73	13.34
Miami-Fort Lauderdale, FL CMSA	YES	5.08	8.48	8.34	9.39	9.33	9.19
Milwaukee-Racine, WI CMSA	NO	9.84	17.84	12.44	12.76	13.05	12.44
Minneapolis-St. Paul, MN-WI MSA	NO	7.94	13.72	11.5	12.19	12.32	11.2
Nashville, TN MSA	NO	7.4	13.36	9.8	9.91	10.11	9.55
New Haven-Stamford-Waterbury, CT CMSA	YES	5.34	9.05	9.19	5.79	5.94	5.32
Norfolk-VA Beach-Newport News, VA-NC MSA	NO	3.19	6.47	3.78	3.53	4.22	3.83
Oklahoma City, OK MSA	NO	6.27	8.97	9.46	10.44	10.58	9.98
Phil.-Wilmington-Atl. City, PA-NJ-DE-MD CMSA	NO	8.63	10.41	12.23	11.07	10.89	10.43
Phoenix-Mesa, AZ MSA	YES	11.65	15.48	15.89	17.3	17.75	16.5
Pittsburgh, PA MSA	NO	7.54	11.36	10.68	8.82	9.37	8.96
Portland-Salem, OR-WA CMSA	NO	8.45	9.39	9.15	9.25	9.28	9.05
Rockford, IL MSA	YES	6.41	9.4	8.92	10.42	10.49	9.82
St. Louis, MO-IL MSA	NO	16.59	24.75	19.15	21.31	22.71	20.25
San Antonio, TX MSA	YES	4.64	6.23	5.69	6.13	6.34	6.02
San Diego, CA MSA	YES	7.76	8.72	9.77	9.7	10.01	9.53
Oakland-Santa Rosa, CA CMSA	YES	5.46	12.22	10.08	11.21	11.22	11.13
Seattle-Tacoma-Bremerton, WA CMSA	NO	14.63	17.03	17.52	18.5	18.26	17.79
Tampa-St. Petersburg-Clearwater, FL MSA	YES	10.88	20.11	19.49	21.16	20.8	20.25
Toledo, OH MSA	NO	7.73	15.65	12.61	12.01	12.52	12.67
Topeka, KS MSA	NO	5.66	8.5	7.34	8.87	9.14	8.26
Tucson, AZ MSA	YES	10.96	12.35	13.05	14.07	14.45	13.81
Waco, TX MSA	YES	7.33	10	8.57	9.34	9.59	9.06
Washington-Alexandria, DC-VA CMSA	NO	6.83	14.6	10.4	10.19	10.38	10.8
Notes: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively. Recent and earlier immigrants refer to those with less than 10 years of residence and those with 10 years or more of residence in the U.S., respectively.							

## APPENDIX B

<b>Table B-1 Paired Two-tailed t-tests: Differences Between Mean Interaction with Murder</b>						
	X1	X2	X3	X4	X5	X6
X1: Whites	1	<0.001	<0.001	<0.001	<0.001	<0.001
X2: Blacks	-9.15	1	<0.001	<0.001	<0.001	<0.001
X3: Native Latinos	-9.50	7.03	1	0.082	0.001	0.014
X4: Latino Immigrants	-8.20	5.28	-1.77	1	0.001	0.581
X5: Recent Immigrants	-8.79	5.01	-2.68	-2.75	1	0.314
X6: Earlier Immigrants	-8.98	5.67	-2.55	-0.56	1.02	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.						

<b>Table B-2 Paired Two-tailed t-tests: Differences Between Mean Interaction with Rape</b>						
	X1	X2	X3	X4	X5	X6
X1: Whites	1	<0.001	<0.001	<0.001	<0.001	<0.001
X2: Blacks	-12.62	1	<0.001	<0.001	<0.001	<0.001
X3: Native Latinos	-10.19	8.99	1	0.004	<0.001	0.040
X4: Latino Immigrants	-8.96	5.11	-3.00	1	<0.001	0.027
X5: Recent Immigrants	-9.59	4.01	-3.95	-4.74	1	<0.001
X6: Earlier Immigrants	-9.92	6.22	-2.11	2.28	3.57	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.						



<b>Table B-3 Paired Two-tailed t-tests: Differences Between Mean Interaction with Robbery</b>						
	X1	X2	X3	X4	X5	X6
X1: Whites	1	<0.001	<0.001	<0.001	<0.001	<0.001
X2: Blacks	-11.06	1	<0.001	<0.001	<0.001	<0.001
X3: Native Latinos	-10.84	6.98	1	0.022	0.002	0.599
X4: Latino Immigrants	-10.81	7.74	-2.36	1	<0.001	0.012
X5: Recent Immigrants	-10.62	3.65	-3.22	-4.02	1	0.001
X6: Earlier Immigrants	-11.93	6.26	-0.53	2.61	3.50	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.						

<b>Table B-4 Paired Two-tailed t-tests: Differences Between Mean Interaction with Aggravated Assault</b>						
	X1	X2	X3	X4	X5	X6
X1: Whites	1	<0.001	<0.001	<0.001	<0.001	<0.001
X2: Blacks	-9.12	1	<0.001	<0.001	<0.001	<0.001
X3: Native Latinos	-11.23	5.74	1	0.045	0.001	0.186
X4: Latino Immigrants	-10.40	4.40	-2.06	1	<0.001	0.089
X5: Recent Immigrants	-11.20	4.11	-3.49	-4.21	1	<0.001
X6: Earlier Immigrants	-11.06	5.01	-1.34	1.74	3.99	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.						

**Table B-5 Paired Two-tailed t-tests: Differences Between Mean Interaction with Burglary**

	X1	X2	X3	X4	X5	X6
X1: Whites	1	<0.001	<0.001	<0.001	<0.001	<0.001
X2: Blacks	-9.83	1	<0.001	<0.001	0.007	<0.001
X3: Native Latinos	-9.47	5.91	1	0.015	0.003	0.777
X4: Latino Immigrants	-8.04	3.62	-2.50	1	0.002	<0.001
X5: Recent Immigrants	-8.06	2.81	-3.15	-3.34	1	<0.001
X6: Earlier Immigrants	-7.17	5.39	-0.29	3.78	4.49	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.						

**Table B-6 Paired Two-tailed t-tests: Differences Between Mean Interaction with Larceny**

	X1	X2	X3	X4	X5	X6
X1: Whites	1	0.005	<0.001	0.001	0.001	0.061
X2: Blacks	-2.90	1	0.680	0.626	0.304	0.191
X3: Native Latinos	-3.62	0.42	1	0.278	0.153	0.202
X4: Latino Immigrants	-3.48	-0.49	-1.10	1	0.153	0.192
X5: Recent Immigrants	-3.43	-1.04	-1.45	-1.45	1	0.018
X6: Earlier Immigrants	-1.92	1.32	1.29	2.41	2.44	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.						

**Table B-7 Paired Two-tailed t-tests: Differences Between Mean Interaction with Motor Vehicle Theft**

	X1	X2	X3	X4	X5	X6
X1: Whites	1	<0.001	<0.001	<0.001	<0.001	<0.001
X2: Blacks	-9.53	1	<0.001	0.010	0.056	<0.001
X3: Native Latinos	-8.81	4.96	1	0.018	0.001	0.516
X4: Latino Immigrants	-8.39	2.66	-2.44	1	<0.001	<0.001
X5: Recent Immigrants	-8.82	1.95	-3.46	-4.60	1	<0.001
X6: Earlier Immigrants	-8.25	4.11	0.65	3.56	4.84	1

Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.

## APPENDIX C

<b>Table C-1 Descriptive Statistics: Over-exposure to Rape for Selected Populations</b>					
	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Blacks	48	93.04	48.75	8.83	262.21
Native-born Hispanics	48	45.90	26.01	-1.53	102.21
Latino Immigrants	48	55.75	35.93	-2.52	139.52
Recent Latino Immigrants	48	51.42	32.50	-20.59	141.34
Earlier Latino Immigrants	48	62.18	37.69	-8.14	157.59
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

<b>Table C-2 Descriptive Statistics: Over-exposure to Robbery for Selected Populations</b>					
	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Blacks	54	101.10	60.19	-10.35	308.41
Native-born Hispanics	54	56.98	31.84	4.13	157.72
Latino Immigrants	54	72.55	43.16	-9.07	173.80
Recent Latino Immigrants	54	63.55	37.46	-28.58	159.70
Earlier Latino Immigrants	54	79.70	45.05	-20.89	189.73
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

<b>Table C-3 Descriptive Statistics: Over-exposure to Aggravated Assault for Selected Populations</b>					
	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Blacks	49	138.80	83.25	-2.80	458.53
Native-born Hispanics	49	67.86	39.28	0.96	177.64
Latino Immigrants	49	80.34	51.59	-9.59	231.50
Recent Latino Immigrants	49	73.52	43.44	-18.90	197.53
Earlier Latino Immigrants	49	87.81	52.01	10.50	242.16
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

<b>Table C-4 Descriptive Statistics: Over-exposure to Burglary for Selected Populations</b>					
	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Blacks	54	43.54	32.71	-21.86	152.42
Native-born Hispanics	54	25.55	20.04	-2.06	97.68
Latino Immigrants	54	30.49	26.32	-6.77	107.02
Recent Latino Immigrants	54	25.66	25.16	-24.40	98.25
Earlier Latino Immigrants	54	33.19	27.45	-13.91	111.60
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

<b>Table C-5 Descriptive Statistics: Over-exposure to Larceny for Selected Populations</b>					
	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Blacks	54	8.72	18.31	-31.47	42.09
Native-born Hispanics	54	7.82	15.40	-28.67	59.53
Latino Immigrants	54	8.81	19.53	-31.47	70.69
Recent Latino Immigrants	54	4.85	18.12	-34.28	67.77
Earlier Latino Immigrants	54	10.14	21.97	-30.72	68.34
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

<b>Table C-6 Descriptive Statistics: Over-exposure to Motor Vehicle Theft for Selected Populations</b>					
	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Blacks	53	58.11	41.30	-27.44	181.69
Native-born Hispanics	53	38.58	27.10	-9.51	123.46
Latino Immigrants	53	45.76	36.32	-4.99	166.38
Recent Latino Immigrants	53	40.70	32.57	-28.13	130.40
Earlier Latino Immigrants	53	49.43	36.89	-8.41	180.83
Note: Blacks and Whites refer to non-Hispanic Blacks and non-Hispanic Whites, respectively.					

<b>Table C-7 Paired Two-tailed t-tests: Differences Between Mean Over-exposure to Murder</b>					
	X1	X2	X3	X4	X5
X1: Blacks	1	<0.001	<0.001	<0.001	<0.001
X2: Native Latinos	6.29	1	0.095	0.014	0.029
X3: Latino Immigrants	4.92	-1.70	1	0.004	0.709
X4: Recent Immigrants	4.64	-2.55	-2.98	1	0.305
X5: Earlier Immigrants	5.32	-2.25	-0.37	1.04	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.					

<b>Table C-8 Paired Two-tailed t-tests: Differences Between Mean Over-exposure to Rape</b>					
	X1	X2	X3	X4	X5
X1: Blacks	1	<0.001	<0.001	<0.001	<0.001
X2: Native Latinos	9.01	1	0.019	<0.001	0.109
X3: Latino Immigrants	5.37	-2.42	1	<0.001	0.086
X4: Recent Immigrants	4.47	-3.65	-5.39	1	0.001
X5: Earlier Immigrants	6.55	-1.63	1.75	3.52	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.					

<b>Table C-9 Paired Two-tailed t-tests: Differences Between Mean Over-exposure to Robbery</b>					
	X1	X2	X3	X4	X5
X1: Blacks	1	<0.001	0.001	0.011	<0.001
X2: Native Latinos	6.66	1	0.001	<0.001	0.092
X3: Latino Immigrants	3.50	-3.45	1	<0.001	0.003
X4: Recent Immigrants	2.64	-4.28	-5.21	1	<0.001
X5: Earlier Immigrants	4.88	-1.72	3.11	4.45	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.					

<b>Table C-10 Paired Two-tailed t-tests: Differences Between Mean Over-exposure to Aggravated Assault</b>					
	X1	X2	X3	X4	X5
X1: Blacks	1	<0.001	<0.001	<0.001	<0.001
X2: Native Latinos	7.09	1	0.033	0.002	0.197
X3: Latino Immigrants	4.85	-2.19	1	<0.001	0.095
X4: Recent Immigrants	4.30	-3.28	-4.68	1	0.004
X5: Earlier Immigrants	5.82	-1.31	1.70	2.99	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.					



<b>Table C-11 Paired Two-tailed t-tests: Differences Between Mean Over-exposure to Burglary</b>					
	X1	X2	X3	X4	X5
X1: Blacks	1	<0.001	<0.001	0.006	<0.001
X2: Native Latinos	5.49	1	0.040	0.005	0.961
X3: Latino Immigrants	3.54	-2.10	1	<0.001	<0.001
X4: Recent Immigrants	2.90	-2.95	-3.74	1	<0.001
X5: Earlier Immigrants	5.17	-0.05	3.91	4.97	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.					

<b>Table C-12 Paired Two-tailed t-tests: Differences Between Mean Over-exposure to Larceny</b>					
	X1	X2	X3	X4	X5
X1: Blacks	1	0.666	0.971	0.558	0.097
X2: Native Latinos	0.43	1	0.633	0.338	0.124
X3: Latino Immigrants	-0.04	-0.48	1	0.139	0.028
X4: Recent Immigrants	-0.59	-0.97	-1.50	1	0.025
X5: Earlier Immigrants	1.69	1.56	2.26	2.31	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.					

<b>Table C-13 Paired Two-tailed t-tests: Differences Between Mean Over-exposure to Motor Vehicle Theft</b>					
	X1	X2	X3	X4	X5
X1: Whites	1	<0.001	0.028	0.111	<0.001
X2: Blacks	4.92	1	0.018	0.001	0.394
X3: Native Latinos	2.26	-2.43	1	<0.001	0.001
X4: Latino Immigrants	1.62	-3.43	-4.48	1	<0.001
X5: Recent Immigrants	3.55	-0.86	3.45	4.88	1
Note: The t-values of the paired t-tests are shown below the diagonal and the p-values are shown above the diagonal.					