

## ABSTRACT

Carlos Algara for the degree of Master of Public Policy presented on  
May 22<sup>nd</sup>, 2012.

Title: Irrational Fear or Cause for Concern? The Effects of Hispanic Immigration on Crime Rates  
in Tucson, Arizona

Abstract Approved:

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The popular perception, throughout the United States of America, is that there is a positive relationship between recent immigration and crime. The more immigration in an urbanized setting, the more violent crime occurs. Crime is socially constructed to be associated with large influxes of “outsiders” into the community. America has undergone unprecedented growth among its Hispanic ranks in the last thirty years. This has manifested especially in the Southwestern United States, the fastest growing region in the nation. Arizona, one of the fastest growing states of the last decade, has undergone an ethnic renaissance with the migration of hundreds of thousands of Hispanic immigrants. With this spike comes the fear that these immigrants, both legal and illegal, will increase the violent and property. This assumption was highlighted in controversial public policy initiatives and captures the concern of many Americans. This paper uses U.S. Census tracts, as well as uniform crime data from the Tucson Police Department, to analyze Hispanic immigration in Tucson, Arizona and examines the relation between increased recent immigration and the crime rate.

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**Irrational Fear or Cause for Concern? The Effects of Hispanic Immigration on Crime Rates in Tucson, Arizona**

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## **Abstract**

The popular perception, throughout the United States of America, is that there is a positive relationship between recent immigration and crime. The more immigration in an urbanized setting, the more violent crime occurs. Crime is socially constructed to be associated with large influxes of “outsiders” into the community. America has undergone unprecedented growth among its Hispanic ranks in the last thirty years. This has manifested especially in the Southwestern United States, the fastest growing region in the nation. Arizona, one of the fastest growing states of the last decade, has undergone an ethnic renaissance with the migration of hundreds of thousands of Hispanic immigrants. With this spike comes the fear that these immigrants, both legal and illegal, will increase the violent and property. This assumption was highlighted in controversial public policy initiatives and captures the concern of many Americans. This paper uses U.S. Census tracts, as well as uniform crime data from the Tucson Police Department, to analyze Hispanic immigration in Tucson, Arizona and examines the relation between increased recent immigration and the crime rate.



## **I. Introduction**

### *i. A Nation of Changing Demographics*

“The stories of the Latino community are stories about the American dream.”

*-President Barack Obama (Reich & Barth, 2010)*

The United States of America is in the midst of massive demographic shift. A country with a rich history of demographic changes, the blunt reality is that America is becoming less ‘white’ and more ‘brown’ (Hochschild, 2005). In the decade since the start of the millennium, Hispanics have been the fast growing minority group in the country (Singer, 2004). With these racial trends becoming far more pronounced and with projections of a new majority-minority paradigm by 2050, policy makers and citizens alike have debated how to assimilate recently arrived Hispanic immigrants in what they perceive as “American” culture (Hochschild, 2005; McHugh, 1989). From distribution of bi-lingual public services to dealing with the perceived increase in crime from Hispanic immigrants, policymakers and the White-ethnic majority population have discussed avenues to dealing with the influx of Hispanic immigrants. For example, the immigration policy in the United States remains the single largest debate policy debate facing Hispanics as a result of increased population (Hochschild, 2005; McHugh, 2005). Perceived social constructions of criminal foreign-born immigrant populations increasing neighborhood crime rates has been widely viewed as a myth (Hagan, Levi, & Dinovitzer, 2008; Rumbaut, 2008). With regressive and perceived racially-charged policy initiatives, such as those in Arizona, increased discussion of the criminality of foreign-born persons has entered the forefront of the policy debate.

Historically, the United States has been considered a hub of migration due to freedom from religious persecution and economic opportunity (Hochschild, 2005; McHugh, 1989). From the times of the Puritan colony in New England to the arrival of Eastern Europeans and the Irish Catholics of the early 20<sup>th</sup> century, the United States has had a long history of inviting immigrant populations while also socially constructing them as deviant (Hochschild, 2005). With the Hispanic population from abroad skyrocketing since the 1960's, the Hispanic population has begun to migrate from outside of traditional Hispanic neighborhoods (McHugh, 1989). The prospect of better economic conditions in other states, as well as increased demand for agricultural migrant workers, has contributed to the internal migration of Hispanic populations. The internal migration patterns of Hispanics within the United States has not only contributed to the anxiety among many ethnic-majority communities but has also created 'immigrant' gateways that attract substantial Hispanic immigrant populations.

From 2000 to 2010 alone, the United States Hispanic population has grown 4% from 12% to 16% of the total population (U.S. Census, 2010). This growth has been fueled by Hispanic foreign-born populations, including recently arrived immigrants from Mexico and other places in Latin America (Lichter & Johnson, 2009). At the same time, the proportion of ethnic-majority White population has decreased from 75% to 72%. These statistics highlight the fact that the nation is changing, and changing rapidly. In order to understand the reason for this sudden change in demographics, it is important for one to understand the factors contributing Hispanic immigration. Prospects of economic prosperity, the fleeing of political repressive Latin American regimes and the promise of educational opportunities for the next generation has motivated many foreign-born Hispanics to immigrate to the United States (Hochschild, 2005).

As Hispanic migration to the United States and internal migration of existing Hispanic populations to emerging gateways increased, so as the concern of labeling Hispanic populations as ‘deviant’ (Hochschild, 2005; Peterson & Krivo, 2005). Existing literature on perceptions of the White, majority-populations, on Hispanics highlights the fact that many Whites in the United States feel threatened by foreign born Hispanic populations (Peterson & Krivo, 2005; Rumbaut, 2009). In fact, polling on the issue highlights that over the course of the last decade and since the September 11<sup>th</sup> terrorist attacks; Whites have regarded racial minorities in more fearful terms than the previous decade (Glassner, 2010). As the nation changes in demographics, these feelings are only going to become more pronounced both in American society and in the arena of policymaking.

#### *ii. Emerging Immigrant Gateways*

Like tradition immigration patterns of other ethnic minorities throughout the course of history, Hispanic immigrants have been attracted to ‘gateways.’ Gateways are defined as cities that attract immigrant populations and experience unprecedented immigrant growth compared to the nation at-large (Lichter & Johnson, 2009; Singer, 2004). As stated earlier, Hispanic immigration in the last twenty years has transformed the social fabric of American culture and is truly unprecedented. Not only are Hispanic foreign-born immigrants coming to the United States at a greater rate, the phenomena of internal migration of existing Hispanic populations has accounted for the establishment of new immigrant gateways and the reemergence of old ones. Twenty years ago, approximately ninety percent of Hispanics lived in just 10 states with Texas and California alone, accounting for 54% of the Hispanic population (Lichter & Johnson, 2009).

It is clear that coupled with the changing demographics of the country, Hispanic population now make up a substantially larger percentage of the total population than a decade ago (Lichter & Johnson, 2009)

Over the last twenty years, Hispanic populations have begun to immigrate to new suburban and rural destinations rather than traditional gateways (Lichter & Johnson, 2009) (Singer, 2004). Traditional gateways, such as Miami and Chicago, continue to experience growth among their Hispanic population but are becoming less densely populated due to growth into the suburbs and rural areas (Butcher & Piehl, 1998; Singer, 2004). Historically, Hispanic immigrants settle in traditional gateway cities before settling on less-densely populated areas. Particularly in the Midwest, Hispanics have begun to gravitate to areas traditionally not settled by members of their ethnic group (Lichter & Johnson, 2009).

Further analysis on emerging immigrant gateways reveals that foreign born populations have skyrocketed over the course of the last decade. From 1990 to 2010 alone, the foreign born population has doubled (Singer, 2005). This spike in foreign born populations has added into what many call 're-emerging gateways.' Re-emerging gateway cities are classified as cities that experience significant foreign-born migration early in the 20<sup>th</sup> century, only for it to lag until the latter quarter of the century (Singer, 2005). Southwest cities such as Phoenix and Tucson fit the mold of re-emerging gateway cities. While re-emerging cities have begun to take hold all across the country, it has come at the expense of 'former gateways.' Once on the receiving end of migration booms among foreign-born populations, cities such as Buffalo and Pittsburgh have become less of a magnet for migration (Singer, 2005). Coupled with declining economic opportunity and the shift among immigrants to live in suburbs, former gateways are no longer attractive to incoming immigrants.

Of concern to policymakers in many of these gateway cities is the perceived link between an increase in immigration and crime. It is well-known that crime rates are declining in not only gateway cities, but also across the nation (Sampson, 2006). Once more, when one looks at violent crime, rates among foreign-born populations and 1<sup>st</sup> generation Hispanics are considerably less than their White and African-American counterparts. Especially in the past two decades during the unprecedented increase in foreign-born populations, crime has still managed to stay low and defy racial constructions and stereotypes prevalent in American societies (Sampson, 2006). This premise is important if one considers the historical link between foreign born immigration and crime. Unlike the foreign-born immigrant populations that settled in pre-emerging gateways at the turn of the twentieth century, re-emerging gateway cities and suburbs have seen a significant decline in their violent crime rates since the increase of immigration among foreign-born populations (Peterson & Krivo, 2005; Sampson, 2006). On one hand crime is declining, but Whites still view immigrants in hostile and deviant lights. This paradox is the foundation of what Sampson (2006) describes as a ‘repressive’ immigration policy and the negative social construction of immigrant populations.

### *iii. Immigration Policy in the United States*

Immigration Policy and reform remains one of the most contentious policy debates in the country because of its profound influence on the economy, national identity, and society (Batalova, 2009). Whether it’s a fear of increased crime or a concern of using essential public services, polling data suggests a strong “not in my backyard” sentiment when speaking about immigration issues. While Americans are overwhelmingly supportive of legal immigration,

unauthorized immigration is the concern that stands above all else (Batalova, 2009; Pew Hispanic Center, 2007; Reich & Barth, 2010).

In the debate following the September 11<sup>th</sup> terrorist attacks, unauthorized immigration has taken center stage in American immigration policy debates (Glassner, 2010; Rumbaut 2008; Sampson, 2006). Unsubstantiated fears of terror organizations making it into the country through the southern border has prompted the Congress to appropriated 1.6 billion dollars alone to border security since 2002 (Batalova, 2009). In fact, the principle driver of unauthorized immigration has been overstaying tourist visas and work permits. With a debate increasingly focused on border security, immigration reform has been reduced to the backburner of American politics.

One of the primary engines of both authorized and unauthorized immigration has been the need for migrant labor (Batalova, 2009). Historically, immigrant labor has served to address domestic labor shortages in the United States, such as agricultural and construction work. Especially true for unauthorized immigrant populations, many agricultural employers can pay migrant workers considerably lower wages than their native counterparts. Furthermore, the vast low service-based employment opportunities remain an attractive hub for both documented and undocumented Hispanic immigrants. While these two industries remain the most attractive for undocumented immigrants, unauthorized immigrants make up just 5 percent of the total labor force in the United States while comprising nearly half of low-skilled workers (Batalova, 2009). For second-generation and the children of recently arrived immigrants, the educational opportunities of the public school system provide for mobility into higher-skilled job placements. It is clear that the notion of immigrants “taking jobs away” from native populations is simply inaccurate (Batalova, 2009; Glassner, 2010; Reich & Barth, 2009).

Policy makers have struggled with immigration status reform over the course of the last decade. While acknowledging that unauthorized immigration is not only a Civil Rights concern but also a public safety issue, policymakers have concentrated both state resources and political capital on border security and the criminalization of undocumented immigration rather than a “path to citizenship” (Reich & Barth, 2009). The current state of immigration policy in the United States is in desperate need of reform as an entire generation of undocumented immigrants begin to pursue educational and employment opportunities. Thanks, in large part, to the social construction of the issue, immigration reform accomplishments have been incredibly sparse at best. Many state governments such as the Arizona Legislature have pursued draconian measures in response to both the influx of both documented and undocumented immigration and inaction by the federal government (Fisher, Deason, & Borgida 2011). Without comprehensive immigration reform at the federal level, immigration policy theorists believe policy outcomes such as those in Arizona will become the norm across the nation (Batalova, 2009).

#### *iv. Social Construction Policy Theoretical Framework*

“Illegal immigration puts pressure on public schools and hospitals; it strains state and local budgets, and brings crime to our tranquil communities.”

—*Former President George W. Bush* (Rumbaut, 2008)

Throughout the nation’s history, immigrant populations have been used as scapegoats for societal issues. Rumbaut (2008) suggested that “the perception that the foreign born, especially ‘illegal aliens,’ are responsible for higher crime rates is deeply rooted in American public opinion and is sustained by media anecdote and popular myth” (pp.1). In states and communities

throughout the country, many times, arriving Hispanic immigrants are branded as deviants more likely to threaten the stability of the neighborhood and engage in crime. It is clear that social construction plays a very large in policy outcomes regarding Hispanic immigrant and nonimmigrant populations in not only Arizona but across the country.

Schneider and Ingram (1993) state that the social construction of target populations are the “recognition of the shared characteristics that distinguish a target population as socially meaningful” (Link & Oldendick, 1996; pp. 151) The cultural and social differences between minority Hispanic communities and ethnic Caucasian communities make such a distinction possible. Sabatier (2007) argues that the social construction of target populations leads to specific negative and distribution of sanctions to deviant target populations. In doing so, target populations that are labeled as deviant become the recipient of sanctions in policy design while dependents with low political power are protected. Dependents such as middle-class families with young children, whom inherently have low political power but are framed in a positive social construction, are made “protected and made safe” at the prospect of sanctioning Hispanic immigrant populations. In policy design, especially in terms of immigration policy and policies to contain a perceived notion of an increase in crime, Hispanics are labeled as *deviants*. The social construction of deviants suggests that the population lacks both political power and positive portrayals, which in turn, leads to a reception of a disproportionate share of burdens and sanctions (Sabatier, 2007). Especially as ethnic minorities and, in many cases, undocumented immigrants, foreign-born Hispanic populations have become the targets of policies that aim to sanction their communities (Fisher et al., 2011; Rumbaut, 2008; Sabatier, 2007)

The policy social construction of foreign-born Hispanic immigrants has been highlighted by elected policymakers and aspiring politicians. As a socially constructed group labeled as



deviant, aspiring politicians have used depictions of Hispanics for political gain. One such infamous incident occurred in the 2010 United States Senate race between incumbent Senate Majority Leader Harry and former Nevada Legislator Sharron Angle. Universally characterized as a blatantly racist ad, Republican candidate Sharron Angle makes the argument that Hispanic immigrants are “swarming across the border” while terrorizing middle-class families with a perceived notion of crime (Associated Press, 2010). Using Hispanic actors, she has been accused of portraying foreign-born Hispanic immigrants as “thugs and criminals” (Politico, 2010). The construction of Hispanics in the political advertisement have been condemned by Hispanic Civil Rights groups and Hispanic members from both parties in Congress, particularly Democrats. (Associated Press, 2010; Wong, 2010). What this ad highlights is the exploitation of the negative social construction of Hispanics as a political wedge issue. Confirming that Hispanics lack political power and are seen as deviants by the ethnic White majority, the Republican candidate sought to play on the fears of the electorate to garner support for her candidacy.

What the Sharron Angle ad highlights are the popular myths and empirical untruths relating to Hispanic foreign-born populations and criminal activity. Rumbaut (2008) argues that such constructions are perpetuated by media coverage of singular events and media productions. Americans possess empirically inaccurate attitudes of beliefs of multiethnic immigration and crime. Recent work on the 2000 General Social Survey data found that nearly three quarters of Americans believed that immigration correlates with an increase in crime rates (GSS, 2000). Furthermore, approximately sixty percent of Americans believe that immigration poses a threat to the economic opportunities of the native born population. Polling data has shown that these attitudes and beliefs are further exasperated after the September 11<sup>th</sup> terrorist attacks (Glassner, 2010; Rumbaut, 2008).

While attitudes toward immigration differ depending on socio-economic status, demographic factors, and political orientation; Whites overwhelmingly believe in the negative social construction of immigrants in both terms of criminality and causing detriment to the economic opportunities of whites (Fisher et al., 2011; Deason, & Borgida 2011; Glassner, 2010; Link & Oldendick, 1996; Reich & Barth, 2010; Rumbaut, 2008). Furthermore, whites tend to be overwhelmingly opposed to social programs that would elevate Hispanic immigrants into, what Sabatier characterizes, as *contenders* (Fisher et al., 2011; Link & Oldendick, 1996). Contenders are politically powerful target populations that are considered morally undeserving (Sabatier, 2007). In order to prevent the accumulation of political power and changes in policy, target populations are prevented from becoming *contenders* and thus relegated to *deviants*. What this shows is that the social construction of immigration is universal across the country, from citizen to policymaker. Thus, the social construction of groups are not only culturally driven by the dominant group but also confirmed by the political elite (Link & Oldendick, 1996).

Socially constructed as deviants, polling data confirms the disconnect between empirical fact and public opinion. Considering the fact that a strong majority of Americans believe immigration is directly correlated with an increase in crime rates, the social construction of Hispanics, specifically foreign-born immigrants, are incredibly incorrect (Butcher & Piehl, 1998; Fisher et al., 2011; Glassner, 2010; Link & Oldendick, 1996; Reich & Barth, 2010; Rumbaut, 2008). In fact, immigration is associated with lower crime rates and lower incarceration rates than their native African American and white counterparts, respectively (Rumbaut, 2008). For the last twenty years, crime nationally and in “gateway cities” such as Los Angeles and San Diego, have been declining (Rumbaut, 2008). What’s more, from 1994 to 2006 proper crimes and violent crimes reached historic lows in the United States according to the Uniform Crime

Report (Rumbaut, 2008). Incarceration rates among foreign-born immigrants are also substantially lower than the native born populations, with incarceration increasing as generations begin to stay in the United States. This decline in crime rates across the board has been occurring on the backdrop of a dramatic increase in the foreign-born Hispanic population to historic highs. It is quite clear that the perceived positive relationship between increasing immigration and crime rates is nothing more than an empirical myth.

*v. Addition to the Literature*

Recent immigrant gateway cities have been examined to elaborate on the relationship between immigration and crime. As noted earlier, the myth of a positive relationship between increased immigration rates and increased crime rates has no empirical basis (Fisher et al., 2011; Glassner, 2010; Link & Oldendick, 1996; Reich & Barth, 2010; Rumbaut, 2008). While the social construction exists, many emerging gateways across the country, such as Miami, San Diego, Los Angeles, and Chicago, have shown that recently arrived foreign born populations have had a negative relationship on crime rates (Reich & Barth, 2010; Rumbaut, 2008). What this paper seeks to answer is if previous research regarding the relationship between immigration and crime exists in Tucson, Arizona.

In many respects, Tucson is the ideal case study to analyze the relationship between foreign-born populations. Tucson is classified as an emerging gateway city and demographically has a comparable foreign-born and Hispanic population that would warrant comparison. The previous literature has not focused on the foreign-born population within the

state of Arizona and, as the second largest city within the state, Tucson possesses an accurate comparison.

In addition to the demographic factors that make Tucson, Arizona a strong emerging immigrant gateway city, another factor that makes it a strong case study is the fact that Arizona has become ground-zero of the policy debate between public safety and immigration (Archibold, 2010; Fisher et al., 2011). Largely due in part to the passage of Arizona Senate Bill 1070, a piece of legislation which provides law enforcement officials the discretion to ask people within Arizona for proof of immigration status and power of detention, Arizona has thrust itself onto the forefront of the immigration debate (Archibold, 2010; Fisher et al., 2011; Rau, 2010). Many Civil Rights Groups and Civil Liberty Groups, such as the ACLU, have decried the law as an infringement and violation of the fundamental right to privacy and due process afforded to people under the United States Constitution and opening the door for unfair discrimination against Hispanics (Fisher et al., 2011). Supporters of the law, such as Arizona Governor Jan Brewer, have stated that the law represents “another tool for our state to use as we work to solve a crisis we did not create and the federal government has refused to fix” (Archibold, 2010; pp.2). Currently, the federal courts have stayed the controversial portions of the legislation, specifically the provision that requires law enforcement to verify a person’s status if there is reasonable suspicion that the defendant is an undocumented immigration (Rau, 2010). While the future of the Arizona law remains unclear, the intent of the legislature and the Governor acting upon the social construction of immigrants remains the same.

One of the reasons she cites for the legislature acting on undocumented immigration is the notion that immigration positively correlates with increased crime. Polling data reveals some interesting findings into the social construction of the Arizona policy and its implications on

American society. While, according to the literature, this notion is incorrect, Senate Bill 1070 is popular among Americans. According to a CNN/Opinion Research poll, Americans across the country support the law with 56% approval (CNN, 2010). If one controls for race, 34% of White respondents oppose the controversial Arizona law while 71% of Hispanic respondents do. At the same time, a bare majority of respondents believe the law will lead to “more discrimination” suffered by Hispanics but yet support the law. Males are also 15% more likely to support the anti-immigration law than their female counterparts. What the vast polling shows are wide gender and ethnic discrepancies in attitudes about immigrant policy and the social construction of Hispanic foreign-born immigrants as deviants. In totality, native-born whites are far more likely to be threatened by foreign-born populations than their minority native-born counterparts (CNN, 2010; Fisher et al., 2011; Pew Hispanic Center, 2007). This racial divide in public opinion is important to consider when discussing policy implications further.

Ultimately, what this essay seeks to do is provide an analysis into the relationship between immigration and crime in Tucson, Arizona. Due to the ongoing policy debate, the unique changing of the demographics, and the social construction myth that recently arrived immigrants are contributing to a higher crime rate. Applying a social construction theoretical framework, this essay seeks to use Tucson as a case study to explore the relationship between the two variables and, like previous literature suggests, if the social construction held by the ethnic majority in Arizona is cause for concern or an irrational fear.

## II. Literature Review

### *i. Social Disorganization Theory*

One of the many theories said to influence deviant, criminal behavior is social disorganization theory. Criminal activity does not occur in a vacuum; rather it occurs in the absence of effective social controls (Rose & Clear, 1998) (Olson, et al., 2009). Social disorganization theorists contend that crime is a reflection of the failure of some communities to effectively self-regulate one another (Sampson & Groves, 1989). With the shifting of immigrant populations to urbanized and suburban areas following rising unemployment situation in rural areas, these populations have been forced to adapt to social processes such as struggling employment and urbanization.

The foundation of social disorganization theory is the notion that members of a community are no longer responsive to the collective social controls of their community due to a breakdown of environmental factors (Sampson & Groves, 1989). Communities are incapable of providing a collective set of norms, values, roles, and effective hierarchical governing structures due to environmental factors that make solidarity among members of the communities impossible (Sampson & Groves, 1989). Without these informal social controls, members of the community have no allegiance or sense of self within a community and thus become more deviant.

However, before considering the resulting deviance and criminal behavior of the residents, it is of paramount importance to consider the assumptions of what residents seek in community and neighborhood bonds. Especially in urban areas and minority-majority

neighborhoods, residents seek neighborhoods that are “safe to inhabit” and they also possess a strong desire to not be victimized (Rose & Clear, 1998). The general assumption is that families and individuals care deeply about living in a safe neighborhood and having a sense of community where they can raise their families and live their lives (Rose & Clear, 1998). Furthermore, urban residents must feel there is an incentive to invest their social capital, such as time and association, into a community and identify as members of the community (Sampson & Groves, 1989). Without a perceived incentive, such as living in a safe and equitable neighborhood, residents become disengaged and thus contributing to the breakdown of institutional controls.

Much has been made on the role and influence of environmental factors on social disorganization of communities. The early work of Thomas and Znaniecki (1920) on Polish peasants immigrating to America highlights the inherent disorganization facing peoples moving from a homogenous area to a heterogeneous area such as the inner city (Martinez, Jr. & Lee, 2000). Thomas and Znaniecki (1920) described the two general types of disorganization that affect communities, decay in solidarity and cultural anomie (Sampson & Groves, 1989). Cultural anomie refers to the breakdown of traditional cultural norms and values, leading to an adoption of the cultural values of the dominant ethnic group. This is influence of the breakdown of traditional social controls, particularly in the family, is seen in many empirical studies. The breadth of previous research suggests that subsequent generations of immigrants, as they become assimilated into the culture of the dominant group, appear to become more criminally deviant than the previous foreign-born generation (Parker & McCall, 1999). For the purposes of this study, it is expected that Tucson’s foreign-born population would have a significantly lower

crime rate than their assimilated counterparts. Cultural norms and values, especially in the family, play a large role in the informal social control on crime within a community.

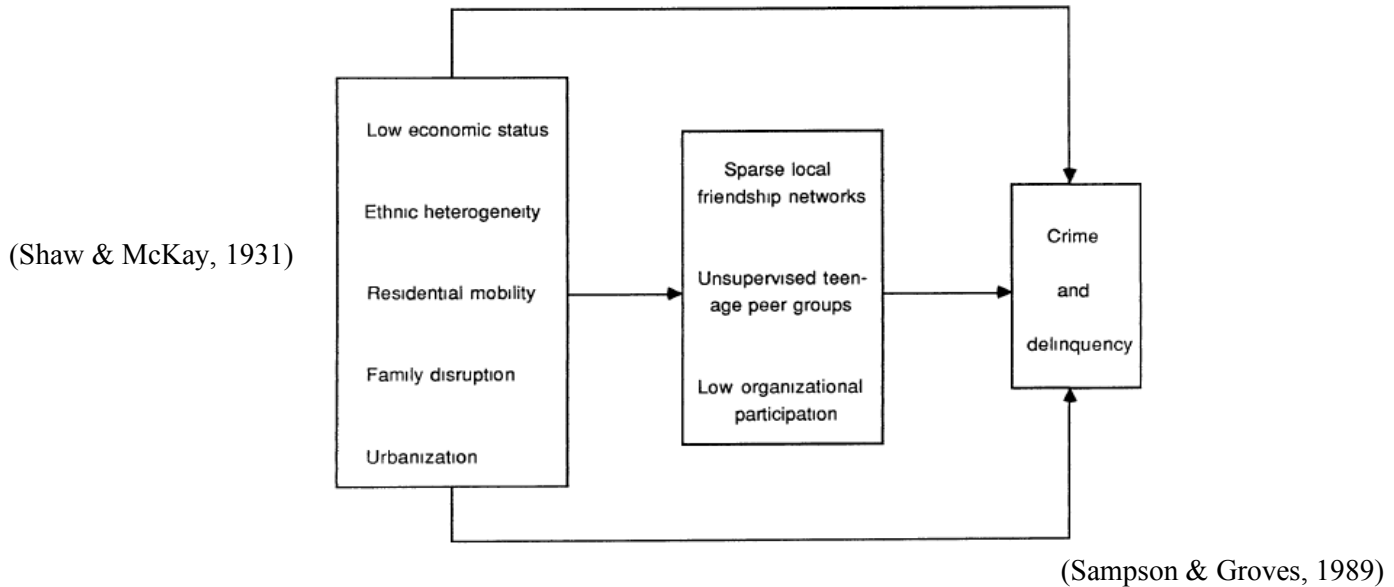
There are many environmental factors that strongly influence the social disorganization of communities. Two prominent destabilizing factors include economic considerations and residential mobility (Sampson & Groves, 1989). Empirical research conducted by Sampson & Groves (1989) concluded that a link between residential mobility and low socioeconomic status of a community strongly influenced both perception of safety among residents of the community and the likelihood of being victimized. Residential mobility, meaning people moving in and out of the community, was found to disrupt “a community’s network of social relations” (Sampson & Groves, 1989). Extensive social relationships, an informal crime control, cannot be established with transient populations due to a disinterest in creating social bonds with the community. Transient populations are arguably less likely to feel an allegiance to their community due to the fact that their move is temporary (Sampson & Groves, 1989).

Lastly, economic factors play a large role in the social disorganization of communities. A previous study conducted by Shaw & McKay (1931) in Chicago revealed that poverty and unemployment had a substantial impact on the crime and delinquency of a given neighborhood. The theoretical approach surmised a correlation between economic means and social capital distribution with a given neighborhood. The greater the economic means, the more public resources and social capital distributed throughout the neighborhood. Further studies revealed that unemployment added to a sense of disassociation with communities, as communities struggled to provide formal and informal services to the unemployed (Sampson & Groves, 1989) (Rose & Clear, 1998). Coupled with the already existing poverty and low socioeconomic status of certain urban areas, economic factors such as unemployment add to the disorganization and



lack of social control in neighborhoods and thus add to more criminal deviant behavior. The flow chart below highlights the principle components of social disorganization theory.

**Figure 1: Casual Model of Social Disorganization Theory**



Working off of the work of Shaw & McKay, Sampson & Groves (1989) introduced new elements into social disorganization theory. Largely resulting out of environmental factors, Sampson & Groves (1989) examine the intervening dimensions of social disorganization theory. Spawning out of “delinquency as a primary group phenomenon” (pp.778), these intervening variables represent another layer of social disorganization. These exogenous factors, such as family disruption and residential mobility, lead to sparse local friendship networks and low organizational participation (Sampson & Groves, 1989). Social disorganization theory continues to explain macro-level crime trends and be an accurate, generalizable theoretical framework (Sampson & Groves, 1989).

*ii. Social Structures among Latinos*

As social disorganization theory points out, social structures are vitally important and serve as social controls on criminal behavior. Of these social structures, some are unique among the Latino community. As stated earlier, first-generation Hispanic immigrants are significantly less likely to engage in criminal activity than their native-born counterparts or their “second generation” offspring (Hagan, Levi, & Dinovitzer, 2008). While the “second generation” are more likely to be deviant than their foreign-born parents, studies have shown they are less criminally involved than their generational counterparts with native-born parents.

The breadth of literature on Latino family structures finds significant differences between them and their native counterparts. Hagan, et. al (2008) reveals that a longitudinal study on second generation native-born immigrant children finds that they are less likely to be in trouble at school and with the law. What the authors surmise is that there is an effect on crime by social structures surrounding Latino families. Family cohesion and acculturation, according to contemporary research, has been a signature Latino characteristic (Smokowski, Rose, & Bacallao, 2008). Defined as the “process in which cultural change resulted from contact between two autonomous and independent cultural groups,” acculturation is widely seen as an exchange of norms and values (Smokowski et al., 2008). Acculturation and assimilation take place among Latino families, especially among families with foreign-born parents. These two processes are important to consider when discussing the family structure of recently arrived immigrant families.

Family structures act as informal social controls on crime (Hagan et al., 1998; Rose & Clear, 1998; Martinez, Jr., & Lee, 2000). With strong emphasis on traditional family structures,

such as marriage, and values of unity, Latino families are more likely, than their comparison population, in their characteristics to provide informal social controls (Akins, 2012). Foreign-born parents are much less likely to commit criminal acts due to the virtue of strong family ties and the fear of engaging the “crime-immigration nexus.” Coined by Hagan et al., (2008), the crime-immigration nexus is the premise that undocumented immigrants faced a “double punishment” when committing acts of deviance. First, the initial trial for the crime and, secondly, a trial on their immigration status results in “double punishment.” Inherently, the mere act of being undocumented is a strong deterrent for undocumented foreign-born people to not commit crime. Furthermore, foreign-born parents are substantially less likely to commit crime than their single counterparts due to familial responsibilities (Martinez, Jr., 1996). Coupled with higher rates of religiosity than their native counterparts, Hispanic families many times are able to act as informal social controls on crime.

Another crime-predictive factor among the Latino population is strong communal bonds. Largely a result of strong communal-networks and compatible norms and values, Latino communities are uniquely positioned to serve as a social structures deterring crime (Lee et al., 2001) An analysis of two border cities, San Diego and El Paso, revealed that Hispanic communities were far less likely to engage in violent crime (Lee et al., 2001). Furthermore, these are communities with rampant poverty and low socioeconomic status. Lee et al., (2001) suggests that more work is needed to understand the relationship between Latino family structures and crime. While the laws are written by the dominant social group, much like social construction theory states, the Latino family

*iii. Previous Research on the Link Between Immigration & Crime*

Research on the relationship between immigration and crime is an arena of academia that has been subject to renewed interest over the years. Due to low immigration into the United States in the middle of the 20<sup>th</sup> century, coupled with the assimilation of immigrants who arrived at the turn of the century into American society, the study of immigration patterns and crime largely remained a sparsely researched topic (Martinez, Jr., & Lee, 2000). This all began to change with what is considered the “third wave” of immigration during the latter third of the twentieth century (Martinez, Jr., & Lee, 2000). Largely comprised of Latino, Asian, and Afro-Caribbean populations, there has been a renewed interest in the academic study of immigration and crime. With the rising crime rates of the 1960’s and 70’s that coincided with the spike in immigration, this was an area that begged for more academic research (Martinez, Jr., & Lee, 2000; Wright & Benson, 2010).

Previous research on immigration and crime has focused on gang activity (Martinez, Jr., & Lee, 2000). Given the trends of previous urban immigrants to establish close-knit gangs as a tool for assimilation into society, this study was justified. However, with the massive influx of Latino immigrants and the emergence of newly established gateway cities, the field turned to the study of foreign-born immigrants and crime (Singer, 2004). Given the disparity of minority criminal convictions compared to the Euro American population and the disproportionate arrests of foreign-born persons, it is clear that more research was needed to study the link between immigration and crime (Correia, 2010; Laidler, 2009; Martinez, Jr., Stowell, & Cancino, 2008). Consequently, much of the research done on immigration and crime is relatively nuanced.

After being studied decades before, a renewal of the study of immigration and crime began to take form in the early 1990's. A significant inquiry the relationship between recent Latino immigrants and crime rates was sponsored by the United States government in 1994 (Martinez, Jr., 2000) (Lee et al., 2001). The 1994 U.S. Commission on Immigration reform analyzed Mexican border cities to assess the impact between recently arrived Mexican immigrants and the crime rates. What they found was a monumental finding that contradicted the social construction of recently arrived Mexican immigrants (Lee et al. 2001). An analysis of border cities, particularly in El Paso, Texas, found that recently arrived Mexican immigrants committed less crime on average than their African-American and Anglo counterparts when controlling for social characteristics, such as poverty (Martinez, Jr., 2000). With perplexed findings, the commission funded another follow-up study analyzing various cities within the United States with a significant foreign-born population. The results of the study in 1998 mirrored those found four years earlier, that foreign-born immigrants are less likely to engage in criminal activity than the general population at-large (Hagan et al., 1998).

With the findings of the U.S. Commission on Immigration Reform in the middle of the 1990's, a renewed academic interest studying the subject emerged (Martinez, Jr., 1996). The evolution of the field began to analyze many different criminal sets individual and also expanded to include different ethnic and neighborhood considerations (Graif & Sampson, 2009). Using a wide array of methods, different crimes and theoretical frameworks have been applied to explain the relationship between immigration and different classifications of crime.

*Violent Crime*

The study of recently arrived immigrants and violent crime has shown a clear pattern. The breadth of literature analyzing violent crimes, such as homicide, and recently arrived immigrants have shown the recently arrived immigrants are significantly less likely to engage in violent crime, homicides, than their native-born counterparts (Akins et al., 2009; Chavez & Griffiths, 2009; Feldmeyer & Steffensmeier, 2009; Graif & Sampson, 2009; Hagan et al., 1998; Lee et al., 2001; Martinez, Jr., 1996; Olson et al., 2009; Reid et al., 2005; Stowell & Martinez, Jr., 2009). Furthermore, recently arrived Latino immigration appears to have, what Feldmeyer & Steffensmeier (2009) described as a violence-reducing effect and, at worst, a violence-neutral effect. Research among a sample of 328 census places in California done by Feldmeyer & Steffensmeier (2009) highlighted that recently arrived immigrants commit crime at a less rate than their native-born counterparts.

Moving from studies involving metropolitan areas in the Southwest, there have been many areas with significant recently arrived Latino immigrants that have been analyzed. An analysis of Chicago neighborhoods on homicide rates found recently arrived foreign born populations commit violent crime at a far lesser rate than their native counterparts (Graif & Sampson, 2009). Holding city-wide conditions constant, such as economic disadvantage and community stability, these results were more pronounced. These results were replicated in an analysis of Orlando, Florida where it appears that foreign-born persons have a significant negative effect on homicide, sexual assault, robbery, and aggravated assault (Olson et al., 2009). Furthermore, there is no significant effect between foreign-born persons and arrest rates within Orange County, home of Orlando.

### *Property Crime*

The existing literature on the link between immigration and property crime can be considered, sparse at best. Studies have been mainly focused on violent crimes rather than property crimes, due to more reliable statistics collected by official sources and methods of data collection (Akins, 2012; Reid et al., 2005). The sparse literature on the link between immigration and property crime yields similar results as the relationship with violent crime. An analysis of neighborhoods in Chicago by Reid et al., (2005) finds that recently arriving foreign-born populations have a negative effect on property crime rates, specifically robbery and larceny. This effect was seen when controlling for known factors that influence property crime, such as unemployment and age (Reid et al., 2005).

Further examination between the relationship of recent immigration and crime also yielded findings that were similar to the existing literature on immigrant criminality. Specifically, that there is a profound generational difference between criminality involving property crime outcomes. With increased assimilation into society, the offspring of foreign born populations tend to be more likely to engage in criminality involving property crimes than their parents (Reid et al., 2005). Often referred to as the “crime prone” second generation, the pattern of delinquency is seen across cities in the United States.

It is clear that more research is needed to understand the link between recent immigration and crime. The current breadth of literature is nuanced and requires far more synthesis to understand what is truly going on in cities across the country. While the current research is sparse, at best, the trends paint a glimpse into the link between recent immigration and crime.

### III. Methods

#### *i. Tucson, Arizona*

One of the many factors to consider when studying the relationship between immigration and crime is that community context is of utmost importance (Reid, Weiss, Adelamn, & Jaret, 2005). In order to fully assess the relationship between immigration and crime, it is of vital importance to choose a city that has experienced substantial growth in their foreign-born population that is significant from the national trends. As mentioned earlier, Tucson's proximity to the Mexican border and the policy context makes the city worth further analysis into whether the social construction of immigrants as criminal deviants is merely a mythology, as previous research suggests, or a cause of concern.

It is clear that not all Hispanic foreign born populations are homogenous (Akins, Rumbaut, & Stansfield 2009). With different cultural, economic, and ethnic factors, Hispanics are quite diverse peoples. Given the fact that Tucson is approximately 65 miles from the Mexican border, it is unsurprising that Mexicans constitute approximately 37% of the 40.5% of the Hispanic population (U.S. Census, 2010). The remaining 3% are predominately persons from Latin America (U.S. Census, 2010).

Hispanics also differ in economic and social characteristics. Many arrive to this country without formal education and with less means than their native-counterparts (Martinez, 2008). Tucson is no exception, where a substantial amount of Hispanics have less college education than their native White counterparts (U.S. Census, 2010). Furthermore, foreign-born Hispanics in Tucson are also approximately one and a half times more likely to live in poverty. These factors



alone are strong contributors to the criminality of a population according to social disorganization theory (Akins, et al.; Martinez, 2008; Chavez & Griffiths, 2009; Hagan, et. al).

Tucson's foreign born population has skyrocketed over the course of the first decade of the 2000's. Foreign-born persons make up 16% of the total population of Tucson in 2010 compared to approximately 12% in 2000 (U.S. Census, 2010). The unique aspect of an increase of foreign-born persons compared to the nation at large warrants further investigation into the effect of immigration and crime. In congruent with the breadth of literature on the link between immigration and crime, one would suspect Tucson to be no different than that of other metropolitan areas studied, such as Miami, Chicago, and Los Angeles. As the literature states, the more immigrants begin to assimilate into American culture, the more criminally deviant they become (Chavez & Griffiths, 2009). This bodes true for both violent crime and property crime.

As stated earlier, property crime is negatively affected by community stability (Reid, et al., 2005). The more stability within a community, the less property crime there is to occur. Mentioned earlier, Hispanic communities tend to be tighter knit due to cultural considerations (Higgins, Gabibon, & Martin, 2010). Therefore, foreign born immigrants should have a negative effect on both violent crime and property crime.

## *ii. Data*

For the purposes of this study, the units of analysis used for this study are the 148 census tracts that are within the Tucson city limits. Census tracts are commonly used as the unit of analysis to study the effect of explanatory variables on crime rates (Akins, et al., 2009). Each census tract had a minimum of 514 residents and a maximum of 9,289 residents. The mean

amount of residents per census tract in Tucson is 4,194. A minimum requirement of 500 residents was established in order to stabilize crime incident counts and eliminate the inflating of statistics by smaller census tracts with a lack of criminal activity (Chavez & Griffiths, 2009). Crime data was obtained through the Tucson Police Department for the years 2009, 2010, and 2011 organized by census tract. Demographic data was provided by the 2010 U.S. Census Summary File I and social characteristics, such as education and income, were provided by 2006-2010 American Community Survey estimates. The American Community Survey was used in lieu of census data due to the fact that Summary File II containing data on social characteristics of census tracts will not be available till late 2012.

### *iii. Variables*

#### *Dependent Variable: Violent & Property Crimes*

For the purposes of this study, the dependent variable will be violent and property crimes, index I crimes. The sum of the three years for the crime totals were used to generate more stable counts and avoid problems with yearly fluctuation (Akins, et al., 2009). Homicide, robbery, assault, burglary, larceny, and motor vehicle theft crimes were used. Data on arson and rape crime totals were obtained but were not utilized. The reason for the exclusion of rape and arson in the study is that these crimes are vastly underreported and inadequate measures (Reid, et al., 2005). It is widely accepted that rape is a grossly underreported and stigmatized crime. In the dataset provided by the Tucson Police Department, rape statistics were compiled on a self-report basis. Previous literature involving rape has revealed a sharp disparity between self-reports in the

Victimization Survey and official Uniform Crime Reports (Grove, Hughes, & Geerken, 1985). Furthermore, collection of rape crime data is inadequate to capture the full cases of the crime and unreliable for this particular analysis. On the other hand, arson crime statistics were omitted from this case study due to the fact that there is a lack of data in the literature regarding the validity and reliability of arson statistics (Grove et al., 1985). Added as an index I crime in 1980, arson is an inherently sporadic crime where measurements are not considered accurate. Figure 2 below illustrates the dependent variables of violent and property crimes.

**Figure 2: Dependent Variables Illustrations**

<b>Violent Crime</b>	<b>Property Crime</b>
<p style="text-align: center;">Homicide</p> <p style="text-align: center;">Robbery</p> <p style="text-align: center;">Aggravated Assault</p>	<p style="text-align: center;">Larceny</p> <p style="text-align: center;">Burglary</p> <p style="text-align: center;">Motor Vehicle Theft</p>

*Total Population & Gender Control*

Previous research literature on immigrant Latinos and urban violence has provided for control variables on gender and age. Consistent in previous studies; there has been evidence to suggest that a positive relationship between size of a city population and crime (Martinez, Jr., 2000). This is due to the fact that as city population increases, neighborhood stability and social crime by city officials decline. Thus, opportunities for victimization occurs which triggers higher

crime rates in a given locality. In order to control for this bias towards larger census tracts containing more people, in congruent with previous research, the natural log of the total city population was taken (Akins, et al., 2009; Chavez & Griffiths, 2009; Graif & Sampson, 2009; Martinez, Jr., 2000). Another control was added for gender and age in line with previous research. For the argument that younger males commit more crime, a new variable was computed consisting of males that are the ages of 15-24 (Martinez, Jr., 2000). The computation relied on data taken from the United States Census.

Index I crimes provided by the Tucson Police Department will be used as the dependent variables for the statistical analysis. The mean of the crime data of the years (2009, 2010, and 2011) was taken for each crime in order to control for fluctuation between the years. Furthermore, rates were computed of each crime per 10,000 residents in order to control for the discrepancies between the sizes of census tracts. The unit of analysis is U.S. Census tracts within Tucson, Arizona.

### *Recent Immigration*

There have been many approaches in the current literature between immigration and crime on how to operationalize recently arriving immigrants. Reid, et al. (2005) states that the state of current literature on recent immigration has concentrated on the Census measure of people who are foreign-born and who immigrated to the United States in a certain time frame. What this measure captures is a segment of the immigrant population that is substantially different from previous immigrants and differentiates them from the at-large Hispanic population. According to the 2010 U.S. Census, almost all the foreign population is Mexican.

Approximately, 80% of the foreign-born population was born in the country of Mexico (U.S. Census, 2010).

Other studies of immigrant and crime have deplored other measures of recent immigration. One contemporary measure of recent immigration has been a combination of undocumented immigrants and recently naturalized citizens provided by the U.S. Census Bureau (Olson, et al., 2009). Others have preferred a measure consisting of percentage of the population of Hispanic origin (Parker, 2001). The inherent criticism in the measure, which the researcher addresses, is the assumption that recently arrived immigrants are homogenous with their previous generational counterparts. Lastly, previous research has shown to incorporate an index of “recently arrived immigration.” Comprised of standardized scores, these indexes vary and have shown to be a combination of recently arrived immigrants, undocumented citizens, and immigrants who have been born in Latin America (Akins, et al., 2009; Feldmeyer & Steffensmeier, 2009).

For the purposes of this study, the percent of the total population that was both foreign born and entered after 2000 were used. In congruent with current literature on recent immigration and crime, this measurement is an accurate representation of the concept “recent immigration” and best gets at the relationship between immigration and crime. Furthermore, given the overwhelming percentage of foreign born population that is from Latin America, it is an accurate depiction of recent Hispanic immigration.

### *Community Stability*

When understanding the relationship between immigration and crime, it is important to consider the stability of a community when analyzing such a relationship. As social disorganization theory states, there are a variety of factors that would lead to an influence on neighborhood crime rates. Previous research has stated that a variety of measurements be used to measure the “stability” of a given neighborhood and operationalize the concept of stability. Parker (2001) states that models incorporating measures of economic stability reveal a more complete picture of criminal activity when analyzing neighborhoods. Specifically, the addition of factors such as vacant housing and residence stability has shown to have a significant effect on crime rates in a given neighborhood (Feldmeyer & Steffensmeier, 2009; Martinez, Jr., 2000; Olson, et al., 2009; Parker, 2001).

An important facet of community stability is residential stability. In neighborhoods with high transient populations, there is less time for bonding with communities, and less investment and identity with a given community (Parker, 2001). With low community identity and bonds, the likelihood for criminal activity within the community increases. Furthermore, the stability of the community decreases and one would expect this to have a negative relationship with crime as rates increase. With more investment by members of the community and strong identity among community members, one should expect neighborhoods with heightened community stability to exhibit decreased crime rates.

For the purposes of this study, community stability will be measured by creating an index of the summation of standardized z-scores of percent houses owner-occupied and percent of residents that have resided in the same house for a year or over divided by two. Both pieces of

data were taken from the American Community Survey estimates of 2006-2009 conducted by the U.S. Census Bureau. This was done in lieu of U.S. Census 2012 Summary File 2 containing social characteristics of communities, which is currently unavailable for the state of Arizona. Ideally, and in congruent with the literature, the measure used for measuring transient populations within a community and their effect would be percent of residents in the same house for 5 years or over (Akins, et al., 2009). Unfortunately, these statistics are compiled in Summary File 2 and are currently unavailable. The American Community Survey estimates of 2006-2009 measure were used as a substitute.

### *Economic Disadvantage*

One of the leading factors contributing to criminal outcomes in concentrated urban areas is economic disadvantage (Graif & Sampson, 2009). Much of the previous research regarding urban crime rates has controlled for factors relating to economic disadvantage, especially in urban areas (Parker, 2001). Unemployment, lack of family structure, government assistance, education, and poverty are significant factors that may lead to criminal outcomes. The constructions of these indexes are critical to understanding crime rates in densely urban areas.

In studying effects of immigration on neighborhood homicide rates, Graif & Sampson (2009) incorporate a similar disadvantage index. Criminological research has yielded that economic deprivation plays a significant role in community violence that transcends ethnic and racial lines (Parker, 2001). As one recalls, social disorganization is the breakdown of community social institutions that result over time resulting from social change (Lee, Martinez, Jr., & Rosenfeld, 2001). These social institutions include family structure and economic opportunity.

Especially family structure, these social institutions that normally provide informal social controls against criminal activity have become to be eroded over time.

Unemployment in the economic disadvantage index is measured by the American Community Survey measure: *employment status; percent unemployed; estimate percent*. It is quite clear that unemployment leads to criminal outcomes, especially when involving property crimes (Stowell & Martinez, 2009). In addition to unemployment, a poverty measure was utilized to operationalize the concept 'poverty.' Therefore, the American Community Survey measure: *percentage of families and people whose income in the past 12 months is below the poverty level; all families; estimate percent* was added to the index. Likewise, the measure *percent of families and people who have received cash government assistance in the past 12 months estimate percent*, taken from the American Community survey was also added to the index. On top of these economic deprivation variables, the education measure *educational attainment; population 25 years and over; estimate percent lower than bachelor's degree; estimate percent* was utilized. It is established that education has a negative impact on crime rates. Those who hold higher education degrees are less likely to be deviant in both violent and property crimes, due to economic security and elevated status (Martinez, Jr., 2008).

Strong family structures are prevalent among recently arrived immigrants and provide for an informal control on criminal behavior (Lee, et al., 2001). Furthermore, recently arrived Hispanics tend to have less single parent households than their native counterparts. The criminological literature states that areas concentrated with strong family structures are areas that are less likely to have crime. In order to incorporate family structure into the index, the ACS measure *percent of households that are female headed, with no husband present, estimate percent* was added.



Before the creation of the economic disadvantage index, a correlation analysis was used to provide statistical support for the theoretical justification of including the variables in the index. The correlation reported that all five variables had Pearson correlation coefficient ( $r$ ) from .532 to .585. With an  $N > 50$  and  $< 500$ , the criterion of a “moderately strong relationship” is that the correlation coefficient between quantitative variables must be between .50 and .69 (Miethe & Gauthier, 2008 pg.240). With a moderately strong correlation between all the potential variables of an Economic Disadvantage Index, it was appropriate to proceed forward to a factor analysis.

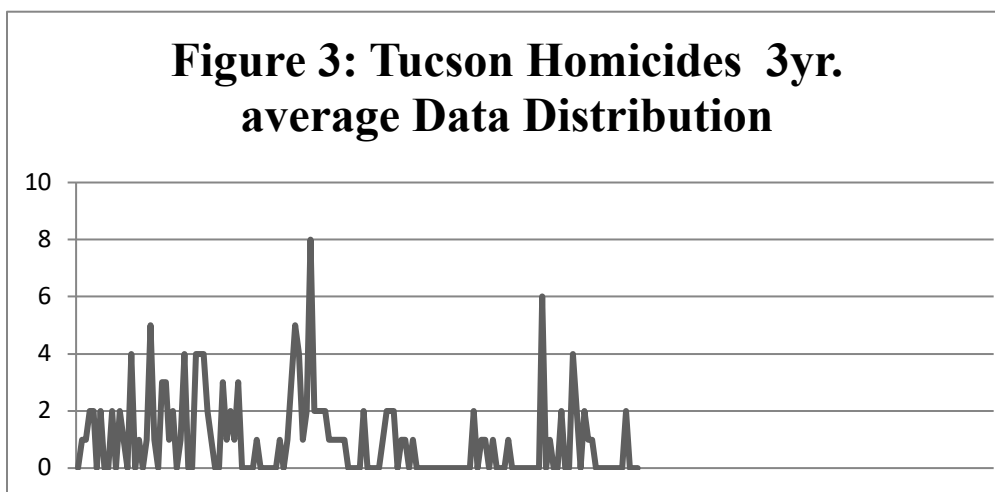
Subsequently, a factor analysis was conducted to address potential issues of multicollinearity and whether the creation of an index of the variables would be statistically sound. Also, exploratory factor analysis was conducted to justify the creation of an economic disadvantage index. It is imperative that an exploratory factor analysis be done when grouping variables and adding measure to a broad and abstract concept, such as economic disadvantages (Vaske, 2008). Exploratory factor analysis was chosen due to the fact that it is “one of the most well-known and easily constructed techniques of classic multicollinearity analysis” (Jong & Kotz, 1999). The raw variables were inserted into a component factor analysis. Only one factor was extracted with loadings greater than +.767 and an Eigenvalue of 3.131.

After the exploratory factor analysis, a reliability analysis was done to test the internal validity of the factor. A Cronbach’s alpha test of internal validity was utilized to confirm the factor and test the consistency of the variables (Christmann & Van Alest, 2004). The resulting coefficient of .736 suggests a high degree of internal consistency between the variables, since Cronbach’s  $\alpha$  is greater than .60 (Christmann & Van Alest, 2004; Vaske, 2008). Christmann & Van (2004) contend that a Cronbach’s  $\alpha$  of greater than .60 provides justification for creating an index of the component extracted from the exploratory factor analysis. Therefore a summation of

the five standardized z-scores of the variables was taken and divided by the total number of variables, which were five. Standardized z-scores were taken of the variables because they are coded as rates.

*iv. Analysis*

With a unit of analysis consisting of geographical entities, in this case U.S. Census tracts, some crime counts tend to be highly skewed due to characteristics within the census tracts. In Counts are not normally distributed across census tracts, thus rendering Ordinary Least Squares as an inappropriate statistical estimator (Ismail & Jemain, 2007; Gardner, Mulvey, & Shaw, 1995). In the instances of highly skewed, overdispersed, and longitudinal data; a Poisson regression or a negative binomial regression are the appropriate statistical procedures for analysis (Ver Hoef & Boveng, 2007). In order to confirm which statistical procedure to use, a likelihood ratio test was conducted along with a generation of a goodness-of-fit statistic. A distribution of mean homicide data by census tract is shown below.



Ver Hoef & Boveng (2007) states that both procedures should be deployed when choosing between a Poisson regression and a negative binomial regression, given the “lack of demonstration theoretic approach” (pp. 267). In order to deduce which regression function to use, a likelihood ratio test was done on homicide rates and the explanatory variable, community stability. When the model was fitted on a Poisson regression, the deviance goodness-of-fit statistic returned was 83.38 with 148 degrees of freedom. With a deviance statistic substantially greater than 1, it is clear that Poisson regression is not the appropriate statistical procedure.

Accurate data analysis for the remaining models was done by Ordinary Least Squares simple regression. With the exception of homicide, all other dependent variable crimes were analyzed using OLS regression. Due to highly skewed homicide counts dispersed across census tracts, negative binomial regression was employed to analyze homicide counts (Akins, Rumbaut, & Stansfield 2009). All other crimes did not result in highly skewed data dispersed across census tracts, thus making OLS regression the appropriate statistical approach to analyze the data (Eisenhauer, 2009). For negative binomial regression, a mean of the 3 year total counts of homicide was used rather than the rates. For OLS regression analysis on all other dependent crime variables, rates per 10,000 residents were used.

With the construction of two indexes, it is paramount to run a correlation to address any potential issues of multicollinearity (Grapentine, 1997). By and large, correlations over .70 are thought to be too multicollinear and may cause problems in further analysis (Grapentine, 1997; Akins, Rumbaut, & Stansfield 2009). Both indexes reported a correlation coefficient of -.284 on a two-tailed test. This is acceptable for further statistical analysis, as it is under the .70. All other independent variables appeared to face no problem with multicollinearity in a subsequent correlation analysis, with the minor exception of education and female-headed household (Table

9). With a correlation of .724, it is not ideal but not too multicollinear to prevent further incorporation into the model. With all issues of multicollinearity addressed, the models are statistically sound enough for analysis using OLS simple regression.

#### **IV. Results**

Descriptive statistics also revealed justification for the selection of Tucson as an appropriate study. Many census tracts exhibited significant foreign-born immigration over the last decade. This is seen in the mean for the immigration measure, percent of the total population that is foreign-born and arrived after 2000, which is 5.26. Many homogenous census tracts did report 0% for the new immigration measure while the maximum, located in census tract 9, reported 23.5% for the new immigration measure. Furthermore, descriptive statistics revealed that Tucson boasted a significant young (15-24) male rate. The mean for percent young males is 8.47, with a min of 3.5 and a max of 36.6, located in census tract 5. Tucson appears to possess a high level of young males, which should add to the criminality of the city. All descriptive statistics are available in Table 1 in the appendixes.

*i. Violent Crime***Table 1: Negative Binomial Regression Results for Homicide**

	<b>Model I</b>		<b>Model II</b>	
<b>Intercept</b>	-10.21**	(3.43)	-8.17**	(3.23)
<b>(Ln) Population</b>	1.07**	(.41)	.81*	(.39)
<b>Pct. Young Males (15-24)</b>	-.02	(.04)	.01	(.04)
<b>Community Stability</b>	-.33	(.20)	-.23	(.20)
<b>Recent Immigration</b>	-.05	(.03)	-.01	(.03)
<b>Economic Disadvantage</b>			.71***	(3.23)
<i>R</i> <sup>2</sup>	.08		.14	

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$   
 Standard errors in parenthesis

*Homicide*

In Tucson, homicide proved to be a sparsely observed crime. Negative binomial regression was run on homicide using counts of homicide, rather than rates of homicide. The mean for homicide, per 10,000 residents was 2.29. This translates to approximately 2 murders per 10,000 residents. Furthermore, descriptive findings showed that the minimum homicide rate per 10,000 residents was 0 and the maximum was 18.5. A negative binomial regression was run for homicide, given the distribution of the homicide count, and the results are located in Table 2. The mean of the three year total homicide count was used rather than rate per 10,000.

Given the results of the negative binomial regression, it is clear that recent immigration is not at all a predictor of violent crime. One of the factors maybe is that homicide is too sparsely

distributed across census tracts and the counts are low. The only statistically significant predictor of homicide proved to be economic disadvantage, which was statistically significant at  $p < .001$ . These findings are consistent with the literature on the positive relationship between economic disadvantage and crime (Akins et al., 2009; Chavez & Griffiths, 2009; Feldmeyer & Steffensmeier, 2009; Graif & Sampson, 2009; Krivo & Peterson, 2000; Olson et al., 2009; Peterson & Krivo, 2005; Rumbaut, 2008; Stowell & Martinez, 2009).

**Table 2: OLS Regression Results for Robbery**

	<b>Model I</b>		<b>Model II</b>	
<b>Intercept</b>	898.89***	(149.97)	957.43***	(145.20)
<b>(Ln) Population</b>	-100.93***	(18.33)	-107.25***	(17.72)
<b>Pct. Young Males (15-24)</b>	-1.62	(2.23)	-.55	(2.17)
<b>Community Stability</b>	-41.06***	(10.56)	-35.28**	(10.30)
<b>Recent Immigration</b>	2.06	(1.69)	-.86	(1.812)
<b>Economic Disadvantage</b>			37.86**	(10.68)
$R^2$	.291		.349	

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$   
Standard errors in parenthesis

### *Robbery*

Using Ordinary Least Squares (OLS) regression, two models were run to explore the relationship between recent immigration and robbery. Exploratory variables accounting for neighborhood dynamics, consistent with the literature, were added as well. For robbery,

descriptive statistics returned a mean of 61.77 per 10,000 residents with a minimum of 0 and a maximum of 1,206.23. Census tract 1 reported the highest robbery rate while a handful of census tracts reported no robbery rates.

OLS regression results for robbery showed that community stability and economic disadvantage are strong predictors of crime, as both are statistically significant at  $p < .01$ . There is also a negative relationship with community stability and a positive relationship with economic disadvantage. A justification for this observed trend is the fact that economic disadvantage and poverty breed an environment of stealing for sustenance and out of frustration with current living conditions (Akins, 2012). Recent immigration, proved to be not statistically significant. This may be due to informal social controls and strong family structures prevalent among Hispanic families (Smokowski et al., 2008).

**Table 3: OLS Regression Results for Aggravated Assault**

	<b>Model I</b>		<b>Model II</b>	
<b>Intercept</b>	1332.35***	(209.49)	1424.13***	(200.47)
<b>(Ln) Population</b>	-150.51***	(25.60)	-106.42***	(24.47)
<b>Pct. Young Males (15-24)</b>	-2.39	(3.12)	-.71	(2.99)
<b>Community Stability</b>	-55.92***	(14.75)	-46.85**	(14.21)
<b>Recent Immigration</b>	3.33	(2.36)	-1.24	(2.51)
<b>Economic Disadvantage</b>			59.37***	(14.75)
$R^2$	.306		.377	

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$   
Standard errors in parenthesis



*Aggravated Assault*

Using Ordinary Least Squares (OLS) regression, two models were run to explore the relationship between recent immigration and aggravated assault. Exploratory variables accounting for neighborhood dynamics, consistent with the literature, were added as well. For aggravated assault, descriptive statistics returned a mean of 85.54 per 10,000 residents with a minimum of 0 and a maximum of 1,712.06. Census tract 1 reported the highest aggravated assault rate while a handful of census tracts reported no aggravated assault rates.

OLS regression results for aggravated assault showed community stability and economic disadvantage are strong predictors of aggravated assault. Meanwhile, recent immigration proved to not be statistically significant but there is a negative relationship present between recent immigration and crime. These findings are in direct contradiction to the social construction of Hispanic immigrants as violent criminals who seek to ravage once tranquil communities (Link & Oldendick, 1996).

*ii. Property Crime***Table 4: OLS Regression Results for Burglary**

	<b>Model I</b>		<b>Model II</b>	
<b>Intercept</b>	536.71*	(227.76)	554.12*	(229.69)
<b>(Ln) Population</b>	-42.13	(27.84)	-44.01	(28.03)
<b>Pct. Young Males (15-24)</b>	5.49	(3.39)	5.81	(3.43)
<b>Community Stability</b>	-67.72***	(16.04)	-65.10***	(16.28)
<b>Recent Immigration</b>	1.21	(2.56)	.34	(12.88)
<b>Economic Disadvantage</b>			11.26	(16.9)
<i>R</i> <sup>2</sup>	.261		.263	

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$   
Standard errors in parenthesis

*Burglary*

Descriptive statistics for burglary showed a mean of 241.30 per 10,000 residents and minimum of 0 with a maximum of 751.94, respectively. When burglary was selected as the dependent variable with the models, community stability appears to be the only dependent variable to have statistical significance, at  $p < .001$ . Consistent with other studies, recent immigration has a positive relationship with burglary but is not statistically significant and possess a small effect size (Akins, 2012). As expected economic disadvantage has a positive relationship with burglary rates (Akins, 2012). The literature suggests that in communities with a breadth of economic disadvantage are more likely to engage in burglary and property crime, largely out of frustration with their current economic situation and social disorganization within

a community (Martinez, Jr., 1996). Descriptive statistics showed burglary had a mean of 241.30 per 10,000 residents and minimum of 0 with a maximum of 751.94, respectively.

**Table 5: OLS Regression Results for Larceny**

	<b>Model I</b>		<b>Model II</b>	
<b>Intercept</b>	11279.58***	(2168.10)	11762.77***	(2160.72)
<b>(Ln) Population</b>	-1259.22***	(264.99)	-1311.35***	(263.71)
<b>Pct. Young Males (15-24)</b>	16.03	(32.25)	24.84	(32.24)
<b>Community Stability</b>	-257.53***	(152.69)	-409.81**	(153.12)
<b>Recent Immigration</b>	16.01	(24.38)	-8.09	(27.07)
<b>Economic Disadvantage</b>			312.52**	(158.96)
$R^2$	.227		.248	

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$   
Standard errors in parenthesis

### *Larceny*

Much like the violent crimes, minus homicide, the statistical procedure used to measure the explanatory variables against the property crimes is Ordinary Least Squares (OLS) regression. Two models were run to explore the relationship between recent immigration and larceny, controlling for community stability and economic disadvantage. For larceny, descriptive statistics returned a mean of 1091.04 per 10,000 residents and a minimum of 1.77 and a max of 11,770.43 respectively. By a significant margin, larceny was the most common property crime in the data set.

OLS regression results for larceny indicated that both community stability and economic disadvantage had a statistically significant relationship on larceny. Community stability was statistically significant at the  $p < .001$  in Model I and  $p < .01$  in Model II, respectively. Economic disadvantage was statistically significant at  $p < .01$ . Economic disadvantage had a positive relationship on larceny while community stability and recent immigration had a negative relationship.

**Table 6: OLS Regression Results for Motor Vehicle Theft**

	<b>Model I</b>		<b>Model II</b>	
<b>Intercept</b>	1137.67***	(207.49)	1223.54***	(199.77)
<b>(Ln) Population</b>	-118.57***	(25.36)	-128.13***	(24.38)
<b>Pct. Young Males (15-24)</b>	-.350	(3.09)	1.22	(2.98)
<b>Community Stability</b>	-65.46***	(14.61)	-56.98***	(14.16)
<b>Recent Immigration</b>	4.74*	(2.33)	.46	(2.50)
<b>Economic Disadvantage</b>			55.54***	(14.67)
$R^2$	.326		.387	

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$   
Standard errors in parenthesis

*Motor Vehicle Theft*

Unlike burglary, results for motor vehicle theft yielded similar results to other crimes. OLS regression results showed statistically significant relationships between community stability and economic disadvantage. Community stability and economic disadvantage appeared to be statistically significant at the  $p < .0001$ . As expected, community stability has a negative relationship with motor vehicle theft and economic disadvantage has a positive relationship with motor vehicle theft. Much like all other crimes, recent immigration was not statistically significant. Descriptive statistics showed a mean of 177.15 and a minimum of 0 and maximum of 1206.23, respectively.

## *V. Discussion*

What this paper examines is the relation between recent immigration and the crime rate in Tucson, Arizona. Specifically, using the social construction policy framework, this paper seeks to shed some light whether the recent policy outcomes from Arizona targeting Hispanics possessed any empirical foundation. Recently arriving foreign born immigrants since 2000 were utilized and, according to the social construction framework, the “*deviant*” societal subgroup was studied (Sabatier, 2007). Using Index I crimes obtained from the Tucson Police Department, violent crimes and property crimes are used to see if the relationship between immigration and crime differs among violent and property crimes.

My findings on recent immigration in Tucson and Index I crimes are consistent with findings done in other metropolitan areas across the country, that recent immigration has a negative relationship on crime when controlling for intervening variables, such as community stability and economic disadvantage (Akins et al., 2009; Butcher & Piehl, 1998; Graif & Sampson, 2009; Laidler, 2009; Lee et al., 2001; Martinez, Jr., 2008; Rumbaut, 2008). This is in direct contrast to the social construction of immigrants and polling data among native-born Americans that recently arriving immigrants contribute to higher crime rates and make previously tranquil neighborhoods unsafe (Higgins et al., 2010). At the census tract level, the negative relationship holds true while not being statistically significant. However, as Akins et al. (2009) states, “violent crime in the United States is not ‘caused’ more by immigrants than the native-born at least at the community level” (pp.312). The same holds true in this analysis of Tucson, Arizona for both violent crime and property crime.

There are many reasons for the observed negative relationship between recent immigration and crime rates. Specifically for violent crime rates, such as homicide, robbery, and aggravated assault, there is a strong incentive for recently arrived foreign born immigrants to not engage in violent crime. First, it is the strongly negative construction of violent crime compared to property crime. Violent crime is constructed as a “worse” crime than property crime and thus carries harsher penalties. The legal implications for recently arrived foreign born immigrants engaging in violent crime are much more severe than property crime, such as mandatory sentencing guidelines and harsher economic fines. Coupled with the fear of deportation for undocumented immigrants, there are strong sanctions against recently arrived immigrants to engage in violent crime. However, property crime is not associated with immigration.

Other factors may also be at work in the negative relationship between recent immigration and crime rates. The breadth of literature on recent immigration and crime suggests other effects at work when deterring foreign born populations to committing acts of deviance. The unique social structures among Latinos appear to play a large role in providing informal social controls on deviance (Hagan et al., 2008). Social structures that are unique in recently arrived immigrant populations may have an effect

Strong family structures, such as two parent households and a strong sense of cultural unity, may play a large role in deterring recently arrived immigrants from engaging in criminal activity in Tucson. Criminology literature has shown that possessing married parents at home leads to a negative effect on crime (Hagan et al., 2008). Traditional family structures provide social control against deviance by reinforcing values and norms to their children that construct deviance in a negative light while also providing household structure. Coupled with strong

religiosity tendencies found in Latino families, compared to native-born populations, social structures play a large role in the potential deviancy of recently arrive foreign-born populations.

As far as property crime, there are coupled factors that may explain the lack of foreign born immigrant involvement. One of the predominant factors of criminality involving property crime has been socioeconomic strain (Lee et al., 2001). Usually out of a means of frustration due to socioeconomic status, it is plausible that people are motivated to engage in property crimes such as larceny, motor vehicle theft, and burglary. One of the reasons that it would be seen to have a negative effect among the foreign-born immigrant populations is that recently arriving foreign born immigrants, compared to their native-born counterparts, do not feel strain about their lower socioeconomic status (Akins et al., 2009). Combined with the threat of being taken into custody and being deported, recently arrived Hispanics maybe less inclined to run the risk of being involved with property crime.

Other factors at the neighborhood level that may lead to decreased crimes is, what Sampson (2006) coined, as the “protective pattern.” What this states is that many neighborhoods with concentrated populations of recently arrived immigrants are less likely to commit crimes due to a neighborhood feeling of solidarity and cultural similarities, such as strong family structures, provide a negative influence on criminality. Furthermore, neighborhoods become revitalized by immigrant populations economically and provide a stabilizing force to the community (Lee et al., 2001). It is clear that future research is needed to understand the relationship between recent immigration and crime.



## *VI. Conclusion*

### *i. Limitations*

There are some limitations to this case study of Tucson, Arizona. First and foremost, the data used for this study is cross-sectional. Thus, this paper only contains a snap-shot of 2009, 2010, and 2011 crime rates obtained by the Tucson police department. A far more accurate method of studying the effect of recent immigration and accounting for acculturation among a population would be deploying longitudinal data to follow respondents over time. Previous studies have shown that longitudinal data provides for more accurate measures of acculturation among recently arriving immigration (Hagan et al., 2008). While the research suggests that crime increases in subsequent generations, data for subsequent generations is unavailable for this case study. Following foreign-born recent immigrants across decades and comparing them to the next generations would provide a better comparison of the effects of acculturation and Latino family structures on crime.

Another limitation for this study is the use of the American Community Survey estimates (2006-2010) rather than the U.S. Census Summary File II measures. For the independent variables using social characteristics data, which can be seen in Table 11 of the Appendix, the American Community Survey was used in substitution for the unavailable Census Summary File II. Due to the fact that the dataset containing social characteristics, such as educational attainment and poverty measures, is unavailable for the state of Arizona as of May, 2012, the American Community Survey estimates were used (U.S. Census, 2010). Previous studies have deployed estimates provided by the American Community Survey for an analysis on immigration

and violent crime (Olson et al., 2009). Future analysis and development of the case study must use the 2010 U.S. Census Summary File II, due to the fact that this summary file relies on 2010 U.S. Census data which is more accurate for census tract analysis. The dataset should be released by the U.S. Census in mid to late 2012.

Another limitation to the case study is the lack of reliable control for crimes committed by documented persons and undocumented persons. Inherently, it is rather difficult to gather data on undocumented populations (Hagan et al., 2008; Wright & Benson, 2010). Especially among Hispanic undocumented populations, it is well known that undocumented persons tend to live in areas with similar cultural ties and ethnic ties (Sampson, 2006). Furthermore, it would be imperative to compare the rates of crime among documented and undocumented persons in a neighborhood. It is generally accepted that undocumented immigrants live with a “crime-immigration nexus” that deters them from committing crime due to the fact that they will face a sanction for the crime itself and for being undocumented (Hagan et al., 2008). The limitation of this case study is that immigration status is not controlled for while crime statistics reflect incidents committed by documented and undocumented persons, thus potentially biasing the data and findings.

Lastly, another limitation of this case study lies in the unit of analysis. The unit of analysis used in this study are U.S. Census tracts which are used to represent neighborhoods. This limitation is regarded as common for case studies with a unit of analysis of census tracts. While many studies have deployed U.S. Census tracts as an accurate representation of “neighborhood,” it is important to understand that they are arbitrary measures of the concept of “neighborhoods.” Specifically, census tracts are boundaries by which the U.S. Census conducts the decennial census (U.S. Census, 2010). These boundaries are drawn arbitrarily by geography,

and at times, done with little to no consideration for neighborhood social characteristics. Also, census tracts make the robust assumption that people inhabiting a particular tract share similar social characteristics. While not a perfect measure for “neighborhoods,” census tracts are a widely accepted measure for studies relating to neighborhood research (Chavez & Griffiths, 2009; Graif & Sampson, 2009).

Even with these limitations to the study of Tucson, this case study provides a valuable addition to the existing literature on the link between immigration and crime. First and foremost, it provides a study into a border city that has not been studied before. As the second largest city in the state of Arizona and its proximity to the Mexican border, Tucson provides for an important case study into the relationship between recent immigration and crime. Furthermore, being located in the politically contentious state of Arizona after the passage of Senate Bill 1070, it provides an accurate case study in the relationship between social construction, policy outcomes, and empirical findings regarding recent immigration and crime.

## *ii. Policy Implications*

Following the terrorist attacks of September 11<sup>th</sup>, 2001 and increased rates of foreign-born immigration, policy makers have begun to socially construct recently arriving foreign-born immigrants as a grave threat (Hagan et al., 2008; Rumbaut, 2008). As a result of viewing foreign-born immigrants, particularly Hispanics, as threats to neighborhood tranquility, policymakers have turned to sanctioning foreign-born persons as a preventive crime method. Policies, such as Arizona Senate Bill 1070, have been considered at the national level and statehouses across the country. These policies have grown out of fear of the criminality of

foreign-born persons that simply, according to the breadth of empirical literature, does not exist (Rumbaut, 2008). Increasingly relying on social constructed fears, rather than empirical evidence, conservative policymakers across the country and Arizona have relied on invasive and discriminatory measures targeting Hispanic immigrants (Fisher et al., 2011).

Nationally, the policy debate regarding recently arriving immigration has centered on border security and curbing undocumented immigration (Hochschild, 2005). It is well documented that many state policy makers along the Mexican border have become increasingly frustrated with the perceived lack of federal response to the undocumented immigration issue (Archibold, 2010). Once more, the lack of federal response has been a common justification implored by Governor Jan Brewer (R-AZ) in the signing of Senate Bill 1070 (Archibold, 2010). This concern of the potential criminality of these persons has been the justification of state and federal lawmakers to push broad border security and deportation measures (Fisher et al., 2011).

With an increasingly controlled border, the evidence still suggests a negative relationship regarding recently arriving foreign-born immigration and violence in border cities (Lee et al., 2001). Coupled with the findings of the border-city of Tucson, the breadth of literature suggests a negative relationship or no clear relationship between immigration and crime. Built on unsubstantial fears and increased investment in resources regarding border security, foreign born immigrants are also more likely to have a negative view on police and report being mistreated in interactions with law enforcement (CNN; 2010; Pew, 2007). It is clear that resources are being invested in measures, such as increased border security and law enforcement, which address a policy issue not supported by empirical research. Bluntly, increased law enforcement is not a viable policy solution, especially with the negative relationship between immigration and crime.

Recent polling among Hispanics, particularly foreign-born Hispanic immigrants, report a negative view on law enforcement (Pew, 2007). Also, Hispanics are less likely to report crime and interact with law enforcement out of fear of maltreatment and, at times, apprehension (Pew, 2007). Such Draconian policies, such as Arizona Senate Bill 1070, would result in less cooperation among Hispanic communities and law enforcement. Due to fear of apprehension, as discussed in the immigrant-crime nexus, Hispanics are less likely to use law enforcement and thus may impede reporting of crime. The social construction and policies arising from them have also been shown to affect Hispanic's attitudes and beliefs about law enforcement. This should be of grave concern to policymakers, as Hispanics represent an increasingly larger share of the population and corporation of Hispanic communities are essential for successful policing strategies.

It is clear that effect immigration reform is needed to prevent the "crime-immigration nexus" and to increase societal equity. Furthermore, a path to citizenship would make cooperation with the police more acceptable and keep family structures together that have been proven to prevent crime. Seeking policies built on rigid deportation break families apart and damage social structures that are critical to raising the next generation. Also, comprehensive immigration reform provides a path to legal status that opens up employment opportunities to undocumented Hispanics that provide for more community stability and economic advantage which may lead to decreased crime rates. A path to citizenship, such as a guest worker program, would also pave the way for increase tax revenues both at the state and local level, thus revitalizing weakened state government revenue. It is clear that a policy solution is needed to address undocumented persons already in the country.

It is clear that future research is needed to address the criminality of future off-spring generations of recently arriving foreign-born immigrants. Research must also be done in more cities across the country in order to paint a clearer picture into the link of immigration and crime. Policy solutions, built on empirical evidence, are also necessary to address effective policing and equitable immigration reform. Policymakers must strive to look past the social constructions of recently arriving foreign-born immigrants and develop policies that, in reality, keep neighborhoods safe. Without such thoughtful discussion on the empirical link between immigration and crime, then policies will continue to be built upon irrational fears rather than valid concerns.

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## VIII. Appendixes

Table 7: Descriptive Statistics

	Mean	SD	Min	Max
<b>Homicide (counts, 3-yr avg.)</b>	.318	.47	0	2.67
<b>Homicide (rate per 10,000)</b>	2.29	3.14	0	18.5
<b>Robbery (counts, 3-yr avg.)</b>	7.61	7.03	0	29.67
<b>Robbery (rate per 10,000)</b>	61.77	105.49	0	1206.23
<b>Assault (counts, 3-yr avg.)</b>	10.42	9.40	0	41.33
<b>Assault (rate per 10,000)</b>	85.54	148.96	0	1712.06
<b>Burglary (counts, 3yr avg.)</b>	33.32	25.49	0	119.33
<b>Burglary (rate per 10,000)</b>	241.30	156.88	0	751.94
<b>Larceny (counts, 3yr avg.)</b>	137.77	141.36	.33	915.00
<b>Larceny (rate per 10,000)</b>	1091.04	1460.38	1.77	11770.43
<b>Motor Vehicle Theft (counts, 3yr avg.)</b>	23.57	17.98	0	93.67
<b>Motor Vehicle Theft (rate per 10,000)</b>	177.15	149.62	0	1206.23
<b>Pct. Foreign Born New Immigrants (2000-2010)</b>	5.26	4.81	0	23.50
<b>Population Size (Ln)</b>	8.27	.41	6.24	9.14
<b>Pct. Young and Male</b>	8.47	4.13	3.50	36.60
<b>Community Stability</b>	0	.92	-3.10	1.85
<b>-Pct. Houses Owner-Occupied</b>	56.03	21.98	0	95.3
<b>-Pct. Residents, Same House 1yrs. +</b>	76.74	10.56	32.20	97.00
<b>Economic Disadvantage</b>	0	.79	-1.54	2.14
<b>-Pct. Persons Over 16 Unemployed</b>	8.16	4.53	0	24.00
<b>-Pct. Persons Living in Poverty</b>	15.05	12.23	0	70.50
<b>-Pct. Households, Public Cash Assistance</b>	3.38	3.22	0	15.10
<b>-Pct. Persons Education under B.A.</b>	73.85	16.84	26.90	98.60
<b>-Pct. Households, Female Headed, No Husband Present</b>	15.11	6.49	0	30.70

Table 8: Economic Disadvantage Index Factor Analysis

<b>Variable</b>	<b>Loading</b>	<b>Extraction</b>
<b>Persons Unemployed</b>	.816	.666
<b>Persons Living in Poverty</b>	.776	.602
<b>Households Cash Assistance</b>	.767	.588
<b>Persons under B.A. Ed.</b>	.798	.637
<b>Households headed Female</b>	.798	.637
<b>Eigenvalue</b>	3.131	

**Table 9: Reliability Analysis of Economic Disadvantage**

<b>Orientations and Variables</b>	<b>Mean (<i>M</i>)</b>	<b>Std. dev. (<i>SD</i>)</b>	<b>Item Total Correlation</b>	<b>Alpha (<math>\alpha</math>) If Deleted</b>	<b>Cronbach Alpha (<math>\alpha</math>)</b>
<b>Economic Disadvantage</b>					.796
<b>Percent Persons Over 16 Unemployed</b>	8.16	4.53	.667	.697	
<b>Percent Persons Living in Poverty</b>	15.05	12.23	.569	.664	
<b>Percent Households, Public Cash Assistance</b>	3.38	3.22	.615	.727	
<b>Percent Persons Education under B.A.</b>	73.85	16.84	.658	.700	
<b>Percent Households, Female Headed, No Husband Present</b>	15.11	6.49	.704	.656	



**Table 11: Operationalization of Independent Control Variables**

Recent Immigration	Population Size	Gender & Age	Community Stability Index	Economic Disadvantage Index
Percentage of total population that are foreign born and arrived after 2000; Estimate Percent Computation**	Total Population by Census Tract (logged)*	Total population; Sex and age; 15 to 24 years; Male; Combined Percent*	Housing occupancy; Total housing units; Occupied housing units; Percent*	Employment Status; Percent Unemployed over 16 years; Estimate Percent**
			Residence 1 year ago; Same House; Estimate Percent**	Percentage of families and people whose income in the past 12 months is below the poverty level; All families; Estimate Percent**
				Income and Benefits (in 2010 inflation-adjusted dollars); With cash public assistance income; Estimate Percent**
				Educational attainment; Population 25 years and over; Estimate Percent Lower than B.A.; Estimate Percent**
				Households by type; Total households; Family households (families); Female householder, no husband present; Percent*

\*U.S. Census 2010

\*\*ACS 2006-2010