



# IMMIGRANTS AND CRIME: THE RELATIONSHIP BETWEEN FOREIGN- BORN POPULATIONS AND CRIMINAL ACTIVITY AT THE STATE LEVEL

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## **Abstract**

The purpose of the present study is to examine the relationship between immigration and criminal activity. The present study uses annual, state-level data on foreign-born populations and a fixed effects model. Most prior studies on this topic used city-level data. Results suggest that foreign-born populations have no significant effects on most state-level crime rates. States with higher percentages of foreign-born populations have statistically similar crime rates to those states with lower percentages of foreign-born populations. There is, however, a significant and negative relationship between rape and foreign-born populations. States with higher percentages of foreign-born populations have lower reported rates of rape. These results are noteworthy because they suggest that the percentage of the state population that is foreign born does not result in more criminal activity at the state-level.

*Key words:* Foreign born; Crime; State level.

## **INTRODUCTION**

There is a belief among some Americans that increased immigration results in more crime. When President Trump was a candidate, he regularly highlighted in his speeches various crimes that were committed by undocumented immigrants, thus attempting to illustrate a positive relationship between immigration and crime. Even in his presidential announcement speech, Donald Trump referred to Mexican immigrants as “rapists.”

Early sociological theories generally supported the view that immigrants are more likely to engage in criminal activity. Some of those theories are as follows noted in Wadsworth (2010), Ousey and Kurbin (2009) and Lee et al., (2001):

- (1) Opportunity Structure Theories. The opportunity structure theories focused on the limited opportunities that immigrants face due to language and cultural barriers and potential discrimination. Unable to find legitimate employment, some immigrants may turn to a life of crime in order to provide for themselves and their families;
- (2) Social Disorganization Theory. This theory states that an influx of immigrants, given their cultural differences and limited economic resources, could disrupt and weaken community institutions. Given these strains on the community, both foreign and native-born populations may face reduced economic opportunities and civic engagement and thus may engage in more criminal activity;
- (3) Labor Market Disruptions. Given that immigrants may dislocate native-born workers from certain occupations, criminal activity may increase among these populations, due to their newly limited employment opportunities; and
- (4) Cultural Perspectives. Diverse cultural perspectives on the part of immigrants may also result in increased criminal activity. One way in which this may happen is when immigrants try to adapt to their new surroundings by assimilating into the predominant culture of their new neighborhoods. Given that immigrants' first homes in America are typically located in economically disadvantaged areas, the predominant culture in many of these areas may be criminally oriented. Thus, immigrants may attempt to assimilate by engaging in criminal activity. Secondly, there may be certain practices that are accepted in the immigrants' native cultures but are considered to be illegal in their new country. Thus, immigrants who have not fully assimilated into their new country's culture may be inadvertently committing crimes.

All of these theories thus support the belief that increased immigration results in increased levels of criminal activity. However, alternative theories of immigration and assimilation and most recent empirical evidence tend to suggest the opposite; increased levels of immigration do not result in more crime but rather may actually reduce crime. Theories that indicate a negative relationship between immigration and crime are as follows (Ousey & Kurbin, 2009):

- (1) Selection Effects. This theory suggests that immigrants are not necessarily a random cross section of the immigrant's home country population. Rather, those most likely to emigrate are those with above average educational attainment and



above average income. Given those characteristics, immigrants are probably much less likely to engage in criminal activity than the average person emigrating from that particular country. In addition, given the effort involved in moving to another country, immigrants are probably more likely to work hard and to avoid activities that may draw attention from local law enforcement in order to minimize the possibility of being deported;

- (2) Formal Social Control. This theory suggests that greater influxes of immigrants may foment fear and angst in the immigrants' new communities. Native-born populations, fearing an increase in crime and unrest, may pressure local officials to increase police presence in the affected communities. An unintended consequence of this increased police presence may be a reduction in all crime, even crime not associated with the immigrant populations; and
- (3) Social Capital. According to this theory, immigrants who congregate in certain communities preserve and maintain cultural mechanisms of social control. These ethnic enclaves encourage the preservation of cultural identities and family ties and provide potential employment opportunities. All of these informal social controls contribute to greater stability in immigrant communities and thus discourage criminal activity.

Hence, all of the above theories suggest that increased immigration results in less crime. The vast majority of prior research in this area also indicates the same: increased immigration results either in a reduction in criminal activity or in no statistically-significant effect (Ousey & Kurbin, 2009 and 2014; MacDonald et al., 2013; Martinez et al., 2010; Wadsworth, 2010; Stowell et al., 2009; Reid et al., 2005; Lee et al., 2001; Butcher & Piehl, 1998). Only one recent study found a positive relationship between immigration and crime (Spenkuch, 2014).

Almost all of this prior research was conducted at the city or census tract-level. Although interesting due to the wide variations in crime rates across communities and neighborhoods, there are several drawbacks to using this type of micro-level data. One of the largest drawbacks is that data at this level ignores smaller cities and rural communities. Hence, the results drawn from an urban level of analysis may not be entirely applicable to smaller communities. Another drawback of many of these studies is that they use data from the decennial censuses. It is difficult to derive trends from data that has 10-year gaps, and the use of fixed effects with so few time-periods is problematic at best.

The purpose of the present study is to examine the relationship between immigration and criminal activity. This study's approach is somewhat different from that employed by prior studies in that annual, state-level data on foreign-born populations will be examined. In addition, several demographic and socioeconomic factors that could not be examined at the city level are incorporated into the model used in the present study. Results of this study suggest that foreign-born populations have no significant effects on most state-level crime rates. This result is noteworthy because this is one of the first studies to find that increased immigration does not result in higher levels of criminal activity at the state level.

## **LITERATURE REVIEW**

As noted previously, there have been numerous studies on the topic of immigration and crime. In this review, only the more recent studies that specifically examined the relationship between immigration and crime will be reviewed. One of the more recent studies was Ousey and Kurbin (2014). In this study, Ousey and Kurbin (2014) examined the impact of immigration on different types of homicide (total, felony-coincident, argument, drug, and gang). Using decennial city-level data from 1980-2010 and a fixed effects negative binomial model, the authors found that immigration is negatively related to drug-related homicides but is not significantly related to other subtypes of homicide. It is important to note, however, that in their 2SLS models, very few explanatory variables were statistically significant in the felony and argument regressions.

MacDonald et al., (2013) looked at the impact of immigration on crime in Los Angeles. Using census tract-level data for Los Angeles for the period 2000-2005, the authors used a 2SLS model with the annual change in neighborhood crime being the dependent variable. Results indicate that increased immigrant concentration (estimated in the first stage of the model) was significantly and negatively related to both total crime rates and violent crime rates. It is important to note that the authors used indices to capture poverty and residential stability and that the coefficients of determination were very low in all regressions ( $< 0.20$ ).

Martinez et al., (2010) examined the impact of immigration on crime in San Diego. Using decennial data from 1980, 1990, and 2000, the authors looked at neighborhood-level data and averaged crime rates over 5 year periods. Using a fixed effects model with a log-linear functional form, the authors found that there was a negative relationship between the percent foreign born and the homicide rate in San Diego.

Almost all of the other studies examined also found a negative relationship between immigration and crime. Some used city-level data (Wadsworth, 2010; Ousey & Kurbin, 2009; Lee et al., 2001; Butcher & Piehl, 1998); others used MSA or metro-level data (Stowell et al., 2009; Reid et al., 2005); and some studies looked at only a few U.S. cities (Lee et al.,



2001; Butcher & Piehl, 1998). Almost all of these studies used panel data, although some prior research only used cross-sectional data.

The only recent study that found a positive relationship between immigration and crime was Spenkuch (2014). This study was the only recent study to look at decennial, county-level data for the period 1980-2000. Contrary to most other recent research on this topic, Spenkuch (2014) found that, when using a fixed effects model, most property crimes were positively related to immigration. However, when using a 2SLS model, only robbery was found to be significantly and positively related to immigration.

The present study differs from this prior research in several ways. First, annual, state-level data for the period 2000-2014 is used. Almost all other studies used decennial data, and no study used data as recent as 2014. Although the use of state-level data may not capture local differences in criminal activity, the use of city-level or census tract-level data excludes data from smaller cities and rural populations, both of which have observed increases in foreign-born populations over the past two decades. Second, this study will examine foreign-born populations and not annual immigration flows. The reason for the use of foreign-born population data is the assumption that all immigrants, and not just recent immigrants, may have a significant impact on criminal activity in a given state. Finally, the present study will use a balanced panel data set, along with a two-way fixed effects model that should control for unobserved heterogeneity among states.

### **EMPIRICAL TECHNIQUE**

In order to determine if foreign-born populations are related to criminal activity, a fixed effects model that controls for both state-level and year fixed effects is used. All observations are weighted using state-level population, standard errors are corrected using a clustering method (clustering is at the state level), and a log-linear functional form is used.

In order to determine if foreign-born populations have an effect on state-level crime rates, the following equation is estimated in the present study:

$$Y_{i,t} = \alpha_0 + \alpha_i + \gamma_t + \beta'X + \varepsilon_{i,t} \quad (1)$$

In the above equation,  $y$  denotes the relevant crime rate,  $\alpha_i$  denotes the state-level effects,  $\gamma_t$  denotes the year effects, and  $X$  denotes the vector of explanatory variables which includes the percentage of the state's population that is foreign born. Guidance for this model was obtained from various studies that estimated crime rates at the state level (Gius, 2014; Moody & Marvell, 2009; Moorehouse & Wanner, 2006; Koper & Roth, 2001; Ludwig, 1998).

The dependent variables used in the present study are the following crime rates: murder, rape, robbery, aggravated assault, burglary, property crime, and violent crime. All crime rates are incidents per 100,000 persons.

Immigration is represented by the percentage of the state's population that is foreign born. The use of foreign-born population data should capture the effects of all immigration, both current and historical, on criminal activity in a given state. In addition, given state-level data is used, the annual changes in the percentage of foreign born are not affected by intrastate migrations of foreign born residents but instead are only affected by interstate or international migrations; hence, the data should exhibit less variability than city-level or census tract-level data. Finally, given that state-level data is used, it is highly unlikely that this study's measure of immigration is endogenous in the regression model. Although some prior studies used 2SLS in order to take account of this possible endogeneity, the use of state-level data should greatly reduce the likelihood that immigration is endogenous; hence, the use of 2SLS is not warranted in the present study.

In addition to foreign-born populations, it is assumed that crime rates are dependent upon a variety of state demographic and socioeconomic factors. These control variables were selected based upon their use in prior research (Gius, 2014; Moody & Marvell, 2009; Moorehouse & Wanner, 2006; Koper & Roth, 2001; Ludwig, 1998). These variables include the percentage of the state population that is Black, per capita real income, percentage of population that is college educated, unemployment rate, percentages of population aged 18-24 and 25-34, population density, per capita alcohol consumption, per capita prison population, and police employees per capita. It is expected that those factors that reduce economic opportunities and increase societal frictions will be positively related to criminal activity.

## **DATA AND RESULTS**

Data used in the present study is at the state level and is for the years 2000-2014. The sample size is 750. Crime data were obtained from the Uniform Crime Reports, Federal Bureau of Investigation (FBI). State-level data on foreign-born populations were obtained from the U.S. Census Bureau, Census of Population and the American Community Survey. It is important to note that the term foreign born refers to all individuals not born in the United States, including naturalized U.S. citizens, legal permanent residents, temporary migrants, refugees, and persons living illegally in the United States. All other data were obtained from relevant Census Bureau reports, the Bureau of Labor Statistics, and the National Institute on Alcohol Abuse and Alcoholism.

Regarding the use of state-level data, although many prior studies that examined the effects of immigration on crime used city or metro-level data, the use of such crime data to estimate the effects of immigration is problematic. Many studies that used city-level

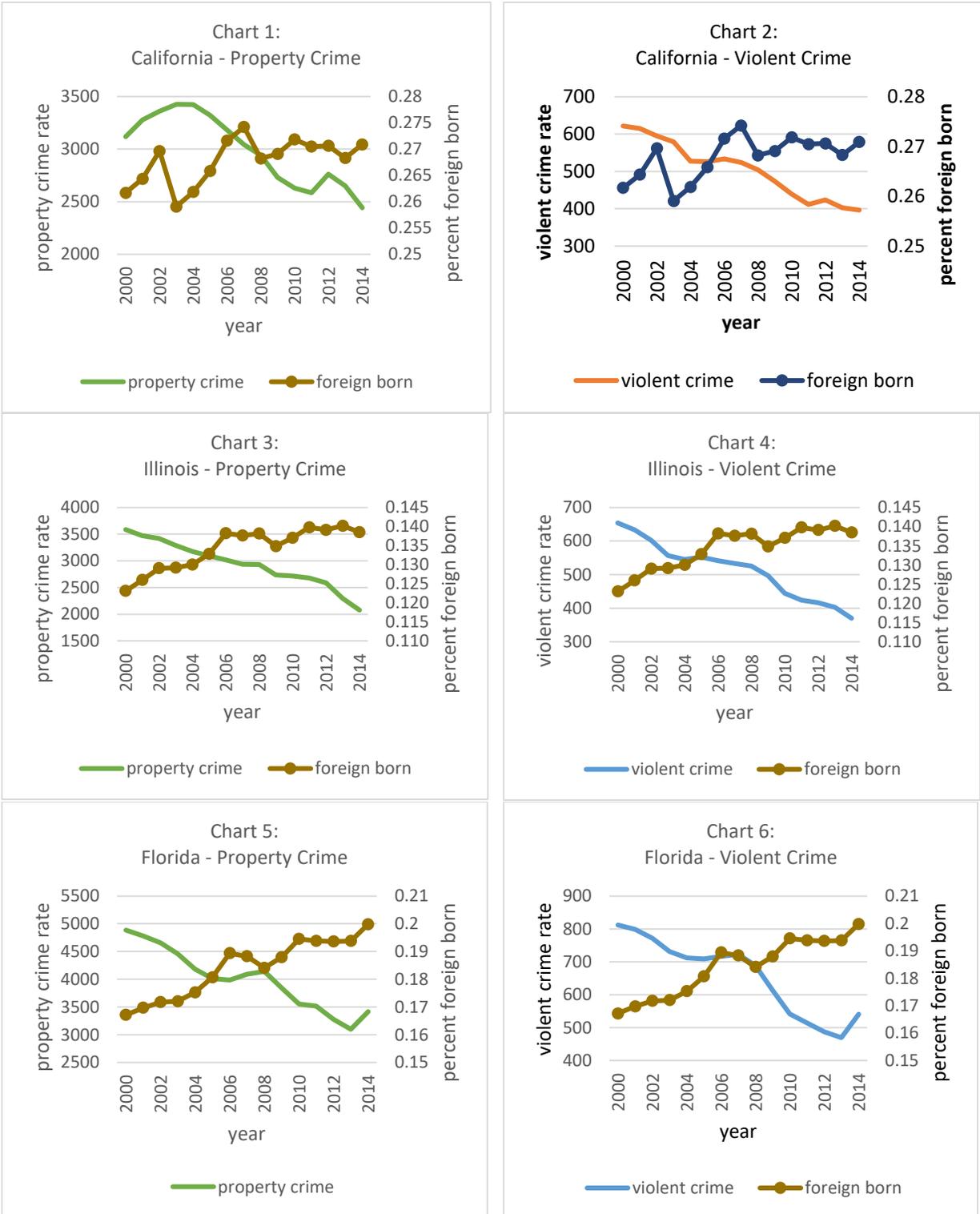


crime data obtained their data from the FBI’s Uniform Crime Reports (UCR). In order to compile the UCR, local and state police agencies voluntarily submit crime data to the FBI. Many times, local police agencies send incomplete data to the FBI. In addition, the FBI has limited control over the quality and reliability of this data. Although the FBI attempts to correct for missing observations by imputing data, they only use these imputed values to aggregate the data to the state, regional, and national levels (Maltz & Targonski, 2002). Due to the inconsistency of this data, the use of city or county-level crime data for any type of analysis should be viewed with suspicion. Finally, according to Helland and Tabarrok (2004), there is evidence that city and county-level crime data is subject to shocks. The effects of these shocks cannot be taken account of by conventional measures to correct standard errors. Hence, if left uncorrected, the standard errors may be biased downwards. Given these issues with city and county-level crime data and given that many prior studies examining the determinants of crime in other contexts used state-level data, the use of state-level crime data in the present study is warranted and appropriate.

TABLE 1. DESCRIPTIVE STATISTICS

<i>Variable</i>	<i>Mean</i>	<i>Standard Deviation</i>
Violent Crime Rate	391.25	164.95
Property Crime Rate	3154.92	794.10
Rape Rate	32.84	11.46
Robbery Rate	99.52	55.52
Aggravated Assault Rate	252.86	121.40
Murder Rate	4.54	2.31
Burglary Rate	673.59	232.44
Percent Foreign Born	0.082	0.059
Percent Black	0.102	0.094
Real Per Capita Income	17560	2723
Percent College Graduates	0.268	0.049
Unemployment Rate	0.0589	0.0206
Percent Age 18-24	0.0989	0.0101
Percent Age 25-34	0.135	0.0486
Population Density	191.29	256.25
Per Capita Alcohol Consumption	2.36	0.483
Per Capita Prison Population	430.52	176.01
Per Capita Police Personnel	305.558	110.568

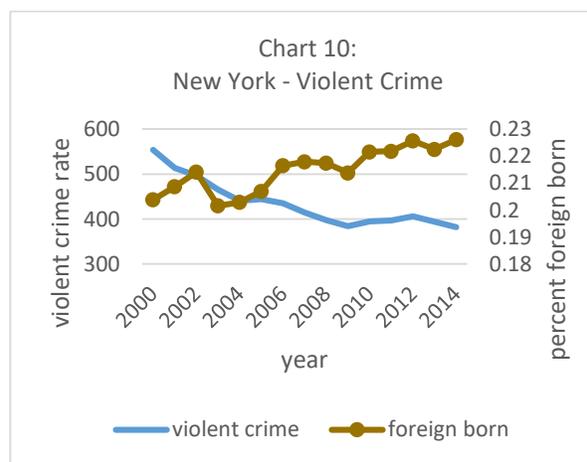
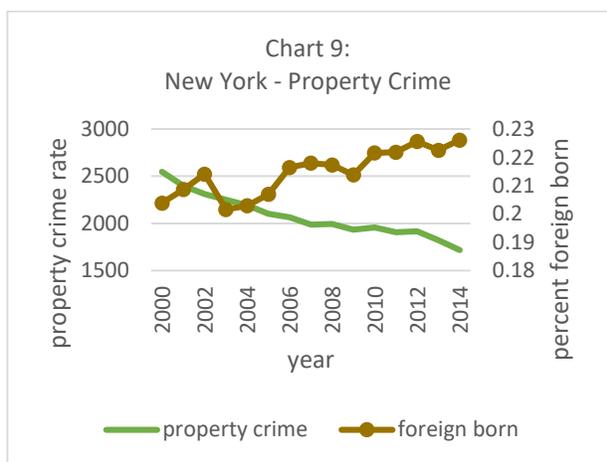
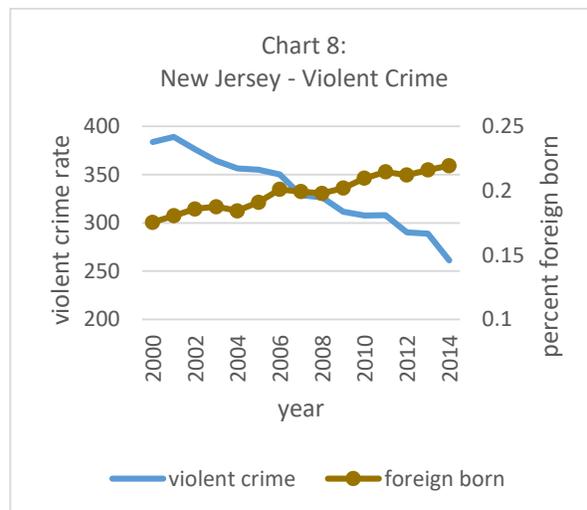
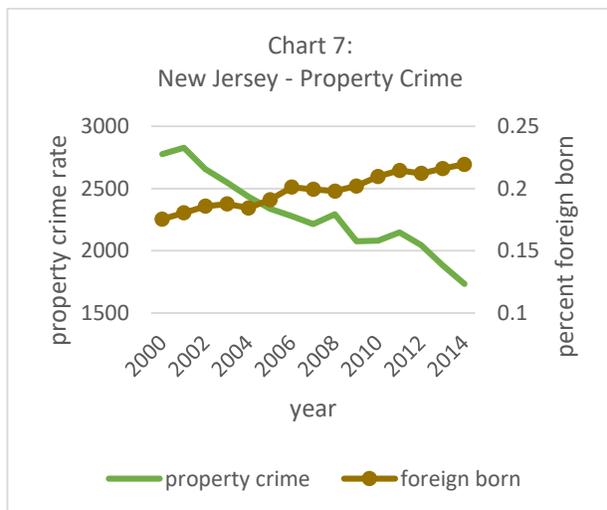
Descriptive statistics are presented on Table 1. For the period in question, the average percentage of state population that is foreign born is 8.2%.

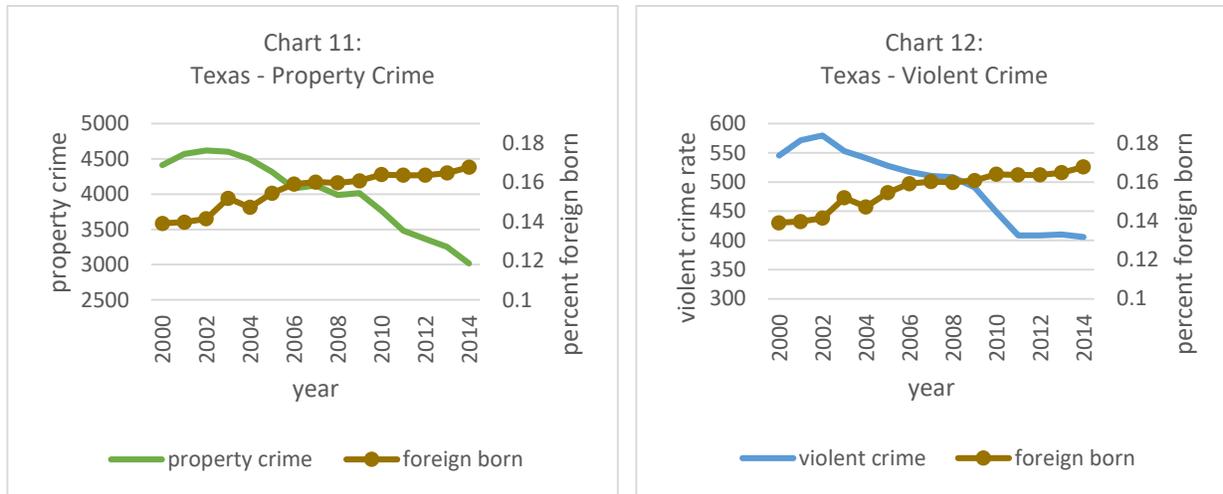


On Charts 1-12, data on the percent foreign born and the violent crime and property crime rates are presented for the six states with the highest percentages of foreign-born populations. It is possible to discern several interesting trends and relationships from



these charts. First, the percentage foreign born is relatively stable within a given state over the 14-year period examined. In California, for example, it only ranged from 26% to 28%. Second, it appears as if there is an inverse relationship between foreign-born populations and crime rates. As foreign-born populations increased, the crime rates fell. Hence, this summary data suggest that increased immigration is negatively associated with criminal activity at the state level.





As noted previously, a fixed effects model that controls for both state-level and year fixed effects was used. All observations were weighted using state-level population, standard errors were corrected using a clustering method (clustering was done at the state level), and a log-linear functional form was used. Weighted variables were used because crime rates fluctuate much more over time in less populated states. Weighting variables controls for this population-sensitive fluctuation. Given that state-level data was used, it was assumed that the percent foreign born is exogenous. Results are presented on Tables 2-8.

TABLE 2. FIXED EFFECTS REGRESSION RESULTS VIOLENT CRIME RATE

<i>Variable</i>	<i>Coefficient</i>	<i>Standard Error</i>
Intercept	6.09	30.24***
Percent Foreign Born	-0.442	-0.64
Percent Black	4.47	6.93***
Real Per Capita Income	0.0000002	0.04
Percent College Graduates	0.118	0.48
Unemployment Rate	-0.398	-0.98
Percent Age 18-24	-0.583	-1.85*
Percent Age 25-34	0.283	0.62
Population Density	-0.0047	-9.59***
Per Capita Alcohol Consumption	0.204	5.71***
Per Capita Prison Population	0.00024	3.07***
Per Capita Police Personnel	0.000053	0.57

Notes:

R<sup>2</sup> = 0.958

p-value <= 0.01 \*\*\*, 0.05 <= p-value <= 0.1 \*



TABLE 3. FIXED EFFECTS REGRESSION RESULTS PROPERTY CRIME RATE

<i>Variable</i>	<i>Coefficient</i>	<i>Standard Error</i>
Intercept	8.042	52.44***
Percent Foreign Born	0.0385	0.07
Percent Black	0.339	0.69
Real Per Capita Income	0.0000031	0.63
Percent College Graduates	0.0807	0.43
Unemployment Rate	0.00049	0.01
Percent Age 18-24	-0.518	-2.15**
Percent Age 25-34	-0.163	-0.47
Population Density	-0.00072	-1.92*
Per Capita Alcohol Consumption	0.00924	0.34
Per Capita Prison Population	0.00013	2.17**
Per Capita Police Personnel	0.00013	1.84*

Notes:

R<sup>2</sup> = 0.956

p-value<=0.01 \*\*\*; 0.01< p-value < 0.05 \*\*; 0.05 <= p-value<=0.1 \*

TABLE 4. FIXED EFFECTS REGRESSION RESULTS RAPE RATE

<i>Variable</i>	<i>Coefficient</i>	<i>Standard Error</i>
Intercept	3.72	15.04***
Percent Foreign Born	-1.84	-2.17**
Percent Black	4.05	5.12***
Real Per Capita Income	0.0000088	1.10
Percent College Graduates	-0.203	-0.67
Unemployment Rate	-0.679	-1.36
Percent Age 18-24	0.0603	0.16
Percent Age 25-34	0.541	0.97
Population Density	-0.0041	-6.74***
Per Capita Alcohol Consumption	0.00489	0.11
Per Capita Prison Population	0.00034	3.50***
Per Capita Police Personnel	0.000075	0.65

Notes:

R<sup>2</sup> = 0.931

p-value<=0.01 \*\*\*; 0.01< p-value < 0.05 \*\*

TABLE 5. FIXED EFFECTS REGRESSION RESULTS ROBBERY RATE

<i>Variable</i>	<i>Coefficient</i>	<i>Standard Error</i>
Intercept	4.72	19.79***
Percent Foreign Born	-1.12	-1.36
Percent Black	3.142	4.11***
Real Per Capita Income	0.0000017	0.22
Percent College Graduates	-0.201	-0.69
Unemployment Rate	0.721	1.50
Percent Age 18-24	-0.0412	-0.11
Percent Age 25-34	0.952	1.77*
Population Density	-0.00268	-4.61***
Per Capita Alcohol Consumption	0.125	2.95***
Per Capita Prison Population	0.0001	1.11
Per Capita Police Personnel	-0.00006	-0.55

Notes:

R<sup>2</sup> = 0.969

p-value<=0.01 \*\*\*; 0.05 <= p-value<=0.1 \*

TABLE 6. FIXED EFFECTS REGRESSION RESULTS AGGRAVATED ASSAULT RATE

<i>Variable</i>	<i>Coefficient</i>	<i>Standard Error</i>
Intercept	5.446	21.58***
Percent Foreign Born	0.116	0.13
Percent Black	5.48	6.79***
Real Per Capita Income	-0.0000012	-0.14
Percent College Graduates	0.356	1.16
Unemployment Rate	-0.682	-1.34
Percent Age 18-24	-0.92	-2.33**
Percent Age 25-34	0.365	0.64
Population Density	-0.0056	-9.05***
Per Capita Alcohol Consumption	0.274	6.11***
Per Capita Prison Population	0.00022	2.27**
Per Capita Police Personnel	0.00007	0.59

Notes:

R<sup>2</sup> = 0.954

p-value<=0.01 \*\*\*; 0.01 < p-value < 0.05 \*\*

TABLE 7. FIXED EFFECTS REGRESSION RESULTS MURDER RATE

<i>Variable</i>	<i>Coefficient</i>	<i>Standard Error</i>
Intercept	0.603	1.77*
Percent Foreign Born	-1.117	-0.95
Percent Black	1.549	1.42
Real Per Capita Income	0.0000046	0.41
Percent College Graduates	0.324	0.78
Unemployment Rate	-1.44	-2.11**
Percent Age 18-24	-0.756	-1.42



Percent Age 25-34	-0.208	-0.27
Population Density	0.00149	1.79*
Per Capita Alcohol Consumption	0.154	2.54**
Per Capita Prison Population	0.00072	5.41***
Per Capita Police Personnel	-0.00027	-1.73*

Notes:

R<sup>2</sup> = 0.919

p-value<=0.01 \*\*\*; 0.01< p-value < 0.05 \*\*; 0.05 <= p-value<=0.1 \*

TABLE 8. FIXED EFFECTS REGRESSION RESULTS BURGLARY RATE

<i>Variable</i>	<i>Coefficient</i>	<i>Standard Error</i>
Intercept	7.08	36.19***
Percent Foreign Born	0.749	1.11
Percent Black	1.17	1.87*
Real Per Capita Income	-0.000011	-1.67*
Percent College Graduates	-0.325	-1.36
Unemployment Rate	0.778	1.97**
Percent Age 18-24	-0.659	-2.15**
Percent Age 25-34	-0.226	-0.51
Population Density	-0.0022	-4.58***
Per Capita Alcohol Consumption	-0.0479	-1.38
Per Capita Prison Population	0.00019	2.49***
Per Capita Police Personnel	0.00017	1.82*

Notes:

R<sup>2</sup> = 0.963

p-value<=0.01 \*\*\*; 0.01< p-value < 0.05 \*\*; 0.05 <= p-value<=0.1 \*

These results suggest that the percentage of the state’s population that is foreign born has no statistically-significant effects on most crimes. In fact, the percent foreign born only has a significant effect on the state-level rape rate and that effect is negative. Hence, states with larger foreign-born populations actually have lower rates of rape. These results thus indicate that increased immigration is not associated with an increase in criminal activity, hence validating the findings of most prior studies.

Regarding the control variables, the variables that were statistically significantly in the majority of regressions include the following: percentage of the population that is Black, per capita alcohol consumption, and population density. These results are consistent with the findings of prior studies.

**CONCLUSION**

Immigration was an important topic in the recent presidential election. President Trump typically campaigned against increased levels of immigration, especially illegal

immigration. In order to stem the flow of migrants, President Trump has proposed building a wall along the entire U.S.-Mexican border, reducing the number of refugees admitted into the U.S., and possibly even reducing the number of H-1B visas. The reasons given for the reducing the flow of migrants range from economic issues (migrants taking jobs from U.S. citizens) to security concerns (preventing terrorists from entering the U.S.). Another reason for reducing the flow of migrants is the belief that immigrants, and especially illegal immigrants, commit relatively more crimes than the native-born populace. In fact, one of Donald Trump's first executive orders created the Victims of Immigration Crime Enforcement Office within the U.S. Immigration and Crime Enforcement. This office's primary purpose is to acknowledge and serve the needs of crime victims and their families who have been affected by crimes committed by criminal aliens.

Early sociological theories somewhat support the view that increased immigration levels result in more crime. Most of those theories, however, have been refuted by recent empirical evidence that shows that increased immigration does not result in more crime. In fact, many prior studies found that increased immigration actually results in a reduction in criminal activity. This prior research has several shortcomings, including the use of micro-level, decennial data. Given that most of this prior research used city-level or metro-level data, the impact of increased immigration on smaller cities and rural areas was ignored.

In order to address these deficiencies in the research, the present study estimated the impact of foreign-born populations on state-level crime rates. The use of state-level data allowed for the use of annual data and greatly reduced the likelihood that immigration was endogenous in the estimating methodology. Using state-level data for the period 2000-2014, the present study found that the percent of the state's population that is foreign born has no statistically-significant effects on a wide variety of crime rates, both violent and property. In fact, the higher the state's percentage of foreign born, the lower is its rape rate. These results are significant in that they validate the findings of most of the prior research in this area even though the level of geographic analysis used in this study is very different and is much more at the macro-level than that used in prior studies. In addition, the only recent study that found a somewhat positive relationship between increased immigration and crime used county-level data and found this positive relationship in a 2SLS model for only one crime (robbery).

Although the present study has its shortcomings, it is significant nonetheless in that it is one of the few studies that examines crime at the state level and yet still does not find a positive relation between immigration (percent foreign born) and crime. These findings clearly repudiate the oft-mentioned belief, unsupported by empirical evidence that



increased immigration results in more crime. It is important to note that undocumented aliens are included in the estimated counts of foreign-born populations used in the present study. Therefore, although the current data do not allow for segregation by citizenship or documented status, the results of the present study suggest that even higher levels of undocumented aliens should not result in increased levels of criminal activity. Hence, current policies on the deportation of undocumented aliens should be reconsidered, especially in light of the evidence that increased levels of immigration do not result in increased levels of criminal activity.

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