

The Trump Hypothesis: testing immigrant populations as a determinant of violent and drug-related crime in the United States

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Abstract:

Objectives. To test the “Trump Hypothesis”: whether immigrants are responsible for higher levels of violent and drug-related crime in the United States, as asserted by Donald Trump in his 2015 presidential campaign announcement. This is achieved using recent crime and immigration data, thus testing the common public perception linking immigrants to crime, and providing an updated assessment of the immigrant-crime nexus. *Methods.* Rates of violent crime and drug arrests by state are pooled for 2012-2014. These are compared against pooled statistics on foreign-born and Mexican nationals living in the United States, as well as estimates of undocumented foreign and undocumented Mexican population by state. The data is analyzed using correlation and multivariate regressions. *Results.* Data uniformly shows no association between immigrant population size and increased violent crime. However, there appears to be a small but significant association between undocumented immigrant populations and drug-related arrests. *Conclusions.* Results largely contradict the Trump Hypothesis: no evidence links Mexican or undocumented Mexican immigrants specifically to violent or drug-related crime. Undocumented immigrant associations with drug-related crime are minimal, though significant. The Trump Hypothesis consequently appears to be biased toward rhetoric rather than evidence.

Introduction

“When do we beat Mexico at the border? They’re laughing at us, at our stupidity. And now they’re beating us economically... The US has become a dumping ground for everyone else’s problems. These aren’t the best and finest. When Mexico sends its people, they’re not sending their best... They’re sending people that have lots of problems, and they’re bringing those problems to us. They’re bringing drugs. They’re bringing crime. They’re rapists. And some, I assume, are good people.”

To officially announce his Presidential bid on June 16, 2015, Donald Trump gave a speech likely to remain a part of his lasting legacy. Although he touched on a number of topics, particularly memorable was his claim that Mexican immigrants, seemingly coming to the United States at the behest of the Mexican government, are drug dealers, criminals and rapists. But to what extent is such a characterization true? While it may be largely accepted in academia that immigrants at worst show no greater propensity toward crime than native populations, popular dogma often identifies immigrant groups as criminal threats that society needs to protect itself from. Trump's declaration of a large criminal element coming primarily from Mexico, hereafter dubbed the "Trump Hypothesis", is the latest in a long line of assertions attempting to conflate immigration with criminal activity.

In a polarizing political era coupled with a polarizing campaign season, it is useful to consider once again to what extent immigrant populations may be associated with crime. Aside from testing the assertions of a prominent political candidate, this paper addresses the underlying and deep-seated notion that immigrants are disproportionately responsible for crime, updating previous findings with recent data. Although the Trump hypothesis is a contemporary iteration, the question of the immigrant-crime nexus is an old one. Given the considerable degree of attention the Trump Hypothesis has received (Murray, 2015; Sanneh, 2015; Victor, 2015), it is useful and necessary to reconsider immigrant associations with crime using recent data.

This paper consequently seeks to examine the "Trump Hypothesis" in detail, considering how migrants including Mexican nationals, documented and undocumented immigrants, affect crime rates. Looking at state-level data, this paper questions whether immigrants are associated with violent crime including murder and rape specifically, as well as drug-related crime including sales and possession. The Trump Hypothesis is tested first by running correlations with immigrant populations and crime rates, then regressing immigrant population data against violent crime rates and drug-related arrests, and finally running expanded regressions controlling for a variety of economic and demographic factors at the state level. Results are largely in line with prior research, indicating no significant association between immigrant population and violent crime, and a small, albeit significant, association between undocumented immigrant population and drug-related arrests. Such results provide evidence contradicting the major tenet of the Trump Hypothesis: that immigrants, by any measure of the group included here, are largely

responsible for crime in the United States. Consequently, this paper asserts that the Trump Hypothesis is driven much more strongly by rhetoric and ideology, rather than a careful consideration of immigrant-crime data.

This paper begins with a brief review of prior immigrant-crime research, followed by a discussion of how the Trump Hypothesis is operationalized in this instance and the data used to test it. Data analysis follows. The study concludes with a discussion of the results, their implications, and some of the limitations of this study.

Background

The association between immigration and crime has been a recurring theme in American popular culture and media for much of the country's history. That immigrants are often blamed for crime, and have been for a considerable period of time in the United States and in other countries, is perhaps not a surprising revelation. The immigrant-crime association has also been subject to considerable empirical investigation, particularly since the early 20th century. Early government-sponsored commissions such as the 1901 Industrial Commission, the 1911 US Immigration Commission and 1931 Wickersham Commission, for example, investigated the link between immigration and crime (Hagan et al, 2008; McDonald, 1997). Although these commissions found no significant relationship between immigrants and propensity to commit crime, the immigrant-crime connection has remained popularly compelling even through modern times. Evidence may point to little association between immigrants and crime, but public opinion continues to link them together.

Recent events attempting to play off the immigrant-crime connection include the 1994 passage (and later repeal) of Proposition 187 in California, requiring among other things immigration status checks for individuals in police custody (Martin, 1995). Following the 1995 Oklahoma City bombing, perpetrated by a natural-born US citizen no less, Congress severely tightened immigration laws in the name of fighting terrorism (Johnson, 2003: 47). Pat Buchanan's 1996 Presidential bid was predicated on building a wall across the US-Mexico border. The Patriot Act, passed in the wake of the September 11, 2001 terrorist attacks, gave the attorney general broad powers over immigrant residency, effectively legitimizing indefinite detention for any foreign national labeled a "terrorist" under a broad definition with little legal review (McCarthy, 2002: 449). Arizona's 2010 immigration law allows police to check the immigration status of anyone stopped or arrested, in spite of strong opposition from the Obama administration (Liptak, 2012). Similarly, Joe Arpaio, long-serving Sheriff of Maricopa County, Arizona, has garnered considerable national attention with his immigration-focused policing efforts (Romero, 2011). Donald Trump's presidential campaign, and more specifically the Trump Hypothesis, are now new additions to the list.

While conservative groups often point to the real costs associated with crimes committed by immigrants (see for example FAIR, 2015; Family Security Matters, 2015; Hahn, 2015), the larger and more fundamental question is whether immigrants, documented or undocumented, are disproportionately more likely to commit crime than the native population. This is the heart of the assertion of the Trump Hypothesis as well: that immigrants are either entering the country already as criminals or they are highly criminally-prone. All groups in a society commit crimes to some extent, immigrants being no exception. However, if immigrants are indeed disproportionately responsible for crime, perhaps greater investment in border security would be worthwhile as Trump suggests.

Empirical investigations considering associations between immigration and crime typically show there to be no significant relationship. Early authors writing on the topic, such as Sutherland (1924), in fact proposed that immigrants to the United States actually have significantly lower crime rates compared to the native population. Subsequent generations of immigrants, as they become more acculturated, may have higher rates of crime but they remain below native population levels. Others, such as Shaw and McKay (1942) posit that the socially disorganized urban neighborhoods where immigrants usually settle, characterized by poverty, residential mobility and structural disadvantage, are largely to blame for criminal propensities rather than immigration itself. McKay (1965) later went on to more strongly assert the neighborhood connection, claiming place of residence plays a major role in delinquency, while immigrant status reduced propensity toward crime if anything.

A number of scholars have since taken on the immigrant-crime question, producing very similar results (see for example Butcher & Piehl, 1998; Bradshaw et al, 1998; Hagan & Palloni, 1999; Hagan et al, 2008; McDonald, 1997). Namely, researchers usually find either no significant relationship between crime and immigration, or they find that immigrants are less likely to commit crimes compared to natives. These results hold steady across country-level analyses (Tonry, 1997; Yeager, 1997), as well as national-level (Chen & Zhong, 2013; Mears, 2001), city-level (Bradshaw et al, 1998; Martinez & Lee, 2000; Ousey & Kubrin, 2009) and neighborhood-level studies (Alaniz et al, 1998; Sampson et al, 2005). A number of possible explanations for this phenomenon have likewise been suggested, such as immigrant self-selection resulting in hard-working individuals making a positive contribution to the host economy (Borjas, 1987; Cobb-Clark, 1993; Model, 1995), immigrant optimism and determination in the face of hardship and disadvantage (Kao & Tienda, 1995; Martinez, 2006), and close family and community ties reducing the propensity to commit crime (Ousey & Kubrin, 2009; Sampson et al, 2005).

For the sake of this paper, however, the main concern is to determine whether or not the Trump Hypothesis holds up to empirical scrutiny. The focus is not on the underlying causes of or antecedents to immigrant crime. Instead, the concern is whether Donald Trump, in fact, uncovered the determining factors significantly linking immigrant status to violent and drug-related crime in contradiction to the previous research. Does foreign, specifically Mexican nationality or undocumented status, play a role in criminal propensity as the Trump Hypothesis suggests? This is where we next turn our attention.

Data

Since immigrants “bring crime”, as Trump notes, we first need to define both immigrants and crime in order to analyze the connection. The Trump Hypothesis is both brief and rather simple. It does not specify explicitly whether immigrants coming to the United States are documented or undocumented. Rather, Trump asserts that Mexico “sends its people”. This could encompass both documented and undocumented immigration. Although Trump singles out Mexican nationals, he later notes in his speech that such criminally-prone immigrants are “coming from more than Mexico”. In fact, Trump contends that they are “from all over South and Latin America, and probably from the Middle East. But we don’t know because we have no protection and we have no competence” (Washington Post, 2015). Since we do not know where these immigrants are coming from, and we apparently have no competence to discern this, it is probably a good idea to test for immigrants in general as well.

Crime is likewise vaguely defined in the Trump Hypothesis. However, Trump does note that immigrants are “drug dealers” and “rapists”. This provides some indication of the nature of crime Trump has in mind. According to the Trump Hypothesis, immigrants would not be prone to committing white collar crime, for example. A reasonable assumption would be that the Trump Hypothesis refers mainly to violent and drug-related crime.

Additionally, timing should be considered. The Trump Hypothesis makes no historical assertions nor mentions prior waves of immigration. Rather, the Trump Hypothesis uses the present tense to describe how immigrants are “bringing crime”. It can consequently be assumed that the Trump Hypothesis refers to the current immigration context. Recent data should suffice for the purpose outlined here.

To test the Trump Hypothesis, we then need to compare crime statistics to documented and undocumented immigrant population sizes using recent data. Here we test for an association between immigrant populations, violent crime and drug-related crime at the state level. This is an aggregate measure of the immigrant-crime relationship, one that excludes individual-level factors. Essentially, we are comparing crime rates in states with

relatively large levels of immigration to states with relatively small levels. Because the Trump Hypothesis paints a broad picture of immigrants as criminals, this is an appropriate level of analysis to test the hypothesis. The Trump Hypothesis is, after all, a blanket assertion of a national phenomenon. National-level data is thus required to validate or refute it.

Because the Trump Hypothesis, as presented, is simple and makes no explicit qualifications for outside indicators or mitigating factors, the analysis here begins with basic tests of association between immigrant populations and crime: namely a zero-order correlation and simplified regression analysis. The main concern here, after all, is with immigrant populations and any relationship they may have to crime rates. However, the literature notes a host of measures that may have some bearing on crime, including a state's mean age, gender balance, and general education level (Butcher & Piehl, 1998, Sampson et al, 2005). These factors are subsequently controlled for as a more nuanced, additional test of the Trump Hypothesis.

Four immigrant classifications are used in this analysis: the overall foreign population, Mexican population, undocumented immigrant population and undocumented Mexican population. To more clearly define immigrant classifications, the foreign population category includes any individual who was not a US citizen at their time of birth. This includes naturalized citizens, refugees, legal immigrants, some categories of non-resident immigrants, as well as undocumented immigrants. The Mexican national category is a subset of the foreign population grouping, considering only individuals having Mexican citizenship at birth. Undocumented immigrants include immigrants of any nationality residing in the country without legal documentation, either through undocumented entry or a loss of valid visa status. The undocumented Mexican immigrant population is likewise a sub-set of the total undocumented foreign population.

State-level foreign population and Mexican immigrant population data were obtained from the United States Census Bureau's American Community Survey (ACS), averaged for the years 2012 to 2014 (USCB, 2014). Obtaining the pooled result for three years rather than a single year helps to avoid any individual year anomalies and presents a somewhat more accurate picture in aggregate (Wadsworth, 2010: 539). The ACS is a nationally representative survey used for a variety of purposes, particularly to understand changing demographics in the country and to assist in the allocation of federal and state funds. Overall undocumented immigrant population estimates and undocumented Mexican immigrant population estimates were obtained from Migration Policy Institute data (2015). The Migration Policy Institute, a nonpartisan think tank, calculated illegal immigrant

population estimations, including breakdown by state and in many cases by nationality, based on ACS 2009-2013 data and 2008 Survey of Income and Program Participation data.

On the other side, crime data was obtained from Federal Bureau of Investigations' Uniform Crime Reporting (UCR) statistics by state, averaged for the years 2012 to 2014 (FBI, 2012a; 2013a; 2014a). The analysis here uses statistics from the "violent crime" category, consisting of murder and non-negligent manslaughter (hereafter noted as "murder"), rape, robbery and aggravated assault. Overall violent crime rates are considered, as well as breakdowns of the murder and rape sub-categories. Since Trump explicitly mentions rape, it warrants inclusion here. Trump also conflated illegal immigration with murder in a July 6, 2015 speech, where he attributed the murder of a San Francisco woman by an undocumented immigrant to poor immigration enforcement (Schleifer, 2015). Being one of the most serious violent crimes and connected to immigration by Trump, we test for specific connections to murder here as well. Rape statistics in the overall violent crime category as well as the rape category use the "legacy" UCR definition. A somewhat looser calculation of rape statistics was introduced in 2013, termed the "revised" definition (FBI, 2014b), although for the sake of comparability with previous years the legacy definition was included in the aggregate statistics. We use the legacy definition here to be consistent, although results are highly similar with either definition.

Drug-related crime data also come from UCR statistics, pooled again using 2012-2014 data. UCR data only provides actual arrest rates for drug crime, rather than total incidents as with violent crime. Drug arrests include both sales and possession, broken down by various categories of narcotics (FBI, 2012b; 2013b; 2014c). Subcategories of drug sales and drug possession are provided by UCR at the regional and national level, but not at state-level. Because Trump explicitly noted that immigrants are "drug dealers", this analysis breaks down drug arrests into the sales and possession subcategories. Regional level ratios were applied to state-level arrest numbers to obtain an estimate of the sales/possession distinction.

Additionally, to control for other factors commonly associated with crime rates, in the expanded regression analysis we introduce poverty rates, unemployment rates, median income, young adult concentration (individuals aged 15 to 24 years old), gender balance, and percentage completing at least a high school education at the state level. While additional measures may work as determinants of violent crime, we narrow our analysis here for the sake of simplicity. The primary concern is the effect of immigration on crime, controlling for some of the other major factors associated with crime. Poverty, median income rates, young adult concentration, gender balance and

percentage completing high school were obtained through US Census reporting, based again on ACS data and pooled 2012 to 2014 (USCB 2014). State unemployment rates 2012 through 2014 come from the Bureau of Labor Statistics (BLS, 2012; 2015). Table 1 below provides the full list of variables and their definitions.

Table 1: Variable Definitions

Crime, immigrant population data, poverty rates, unemployment rates, median income, young adult concentration, gender balance and percentage completing high school were thus calculated for all 50 states, as well as the District of Colombia. Undocumented immigrant and Undocumented Mexican immigrant statistics were not available in every instance, although 94% of states (48 out of 51) had undocumented immigrant estimates, and 80% (41 out of 51) had estimates for undocumented Mexican immigrants. To account for variations in state population size, crime rates and immigrant population sizes were standardized to incidents/individuals per 100,000 residents. Table 2 lists the descriptive statistics for all variables.

Table 2: Descriptive Statistics

Methodology

Thus far we have outlined a plan to test the Trump Hypothesis by comparing immigrant population sizes against violent crime and drug-related arrest rates by state. We first run simple tests, looking for correlations and simple associations, and later controlling for additional economic and demographic indicators. To reiterate the Trump Hypothesis in more explicit, testable terms, we start with the following hypothesis:

H1: Immigrant populations (all immigrants, Mexican nationals, all undocumented immigrants and/or undocumented Mexican nationals) have a positive effect on violent crime rates in the United States.

To specify somewhat narrower parameters of violent crime, we make two sub-hypotheses:

H1a: Immigrant populations (all immigrants, Mexican nationals, all undocumented immigrants and/or undocumented Mexican nationals) have a positive effect on murder rates in the United States.

H1b: Immigrant populations (all immigrants, Mexican nationals, all undocumented immigrants and/or undocumented Mexican nationals) have a positive effect on rates of rape in the United States.

In order to additionally consider associations with drug-related crime, the Trump Hypothesis should similarly be put into more testable terms in relation to drugs:

H2: Immigrant populations (all immigrants, Mexican nationals, all undocumented immigrants and/or undocumented Mexican nationals) have a positive effect on drug-related arrest rates in the United States.

Similarly, two sub-hypotheses follow based on the drug sales or drug possession sub-categories:

H2a: Immigrant populations (all immigrants, Mexican nationals, all undocumented immigrants and/or undocumented Mexican nationals) have a positive effect on drug sales arrest rates in the United States.

H2b: Immigrant populations (all immigrants, Mexican nationals, all undocumented immigrants and/or undocumented Mexican nationals) have a positive effect on drug possession arrest rates in the United States.

The preceding hypotheses thus allow for empirical tests of the Trump Hypothesis. In order to test these assertions, we first conduct correlations between the various independent variables: foreign population, Mexican population, undocumented population and undocumented Mexican population, with the dependent variables: rates of violent crime, the murder and rape subcategories, as well as drug arrest rates and the sales and possession subcategories. Also included in the correlations are the economic and demographic control variables: poverty rate, unemployment rate, median household income, young adult concentration, gender balance, and percentage completing high school. We subsequently run two sets of regression analyses: first a simple test of the Trump Hypothesis comparing immigrant populations to violent crime and drug-related arrests, then a more complex test incorporating controls for the economic and demographic factors noted above.

Results

Table 3 below provides the results of the zero-order correlation analysis. Most apparent, perhaps, is that there is no significant association between any of the measures of crime considered and any foreign population shown here. In some cases, such as the comparison of foreign population and rape, correlations are in fact negative, although not significant. Unemployment shows a strong association with murder (99% confidence), while poverty has a strong and positive correlation with all facets of violent crime as measured here. In other words, higher unemployment is associated with higher rates of murder, while higher rates of poverty have a significant relationship with all categories of violent crime. Interestingly, higher male concentrations are negatively correlated with both violent crime in general and murder in particular (99% confidence for both), while completion of high school is also negatively associated with murder (99% confidence). The only variable showing any kind of significant correlation with drug-related crime is age (negative and 90% to 95% confidence).

Table 3: Correlations with Violent Crime

While correlations allow for consideration of basic relationships between variables, they are quite limited in the conclusions that can be drawn. For one, it is very rare that a bivariate association alone would have sufficient explanatory power. Correlation can give some indication of a relationship, but regression provides more detailed measures of independent variable effects on a dependent variable. We start first with a simple regression model, testing for foreign population associations with violent crime and drug-related crime. In keeping with the original and broad intent of the Trump Hypothesis, other control factors are first omitted. Tables 4 and 5 provide the regression results.

Table 4: Regression Results – Violent Crime

Table 5: Regression Results – Drug Arrests

Regression results are presented in three sections, each with a different dependent variable: the rates of violent crime, murder and rape (Table 4), as well as drug-related arrests and the sales and possession subcategories (Table 5). Each section subsequently contains four models, one for each immigrant population designation: overall foreign population, Mexican population, undocumented immigrant population and undocumented Mexican immigrant population.

This first regression attempt demonstrates very little in the way of statistical significance. The highest level of significance achieved is at the 90% confidence level, showing a weak positive association between undocumented immigrants and violent crime overall, and a weak negative relationship between foreign population size and rape. The explanatory power of this model is quite limited as well, with the constants retaining significance and the R square values remaining very low. In its most basic form, the Trump Hypothesis appears to have weak explanatory power. Consequently, we look next to an expanded regression model, incorporating a number of common control factors including state poverty rates, unemployment rates, median income, young adult population size, gender balance and education level. Tables 6 and 7 show the expanded regression results.

Table 6: Regression Results – Violent Crime, Expanded

Table 7: Regression Results – Drug Arrests, Expanded

Starting with violent crime (Table 6), the expanded regression results indicate either non-statistically significant relationships between immigrant population size and crime, or a significant negative relationship, as in the case of the overall foreign population and the murder rate. There is additionally a weak but positive association (90% confidence) between undocumented Mexican population and violent crime. Poverty is almost uniformly

strongly associated with violent crime, while median income appears to have a positive relationship with violent crime and murder rates. The ratio of males in a state shows a negative association with overall violent crime and murder, although a positive and reasonably strong relationship with rape. Rates of high school education completion also appear to have a positive association with rape figures. R square values are reasonably high in all instances, although lowest in model considering rape.

Drug-related crime (Table 7) shows a somewhat different picture. Of primary concern here is that all foreign population associations are positive and in some cases statistically significant at the 95% confidence level. The undocumented immigrant population in particular maintains a positive and significant association with all three classifications of drug arrests. The Mexican population additionally has a positive association, significant at the 90% confidence level, with overall drug arrest rates and drug possession. While significant and positive, associations are weak. For example, holding all other factors constant, this model predicts a state with an undocumented immigrant population 50% higher than the mean (3578 per 100,000 versus the 2385 per 100,000 mean) would have only 60 more arrests per 100,000 residents. With a mean drug arrest rate at 381 per 100,000 residents, an arrest rate of 441 per 100,000 marks only an 8.6% increase. R square values are also moderate in relation to drug arrests, and constants retain significance throughout. This model consequently has comparatively weaker explanatory power than the model considering violent crime rates.

Discussion

Testing the Trump Hypothesis as originally espoused with a basic zero-order correlation and simplified regression analysis, we find no significant relationships between immigrant population rates, violent crime or drug-related crime rates. Considering the way it was originally presented, the data here in its most basic iteration does not validate the Trump Hypothesis at the state level. A simple test of the effect of foreign population size on crime rates, in other words, yields no significant relationship.

When controlling for other factors in addition to foreign population size, the picture changes somewhat. For one, poverty appears to have the strongest relationship to violent crime rates, although male population size in particular also appears to be strongly associated with higher rates of rape. Almost universally, foreign population size has no association with violent crime rates, murder or rape. The lone exception is the undocumented Mexican population showing a weak association at the 90% confidence level with overall violent crime. However, when looking at murder and rape in particular, that already weak association loses significance. Based on this data, we do

not find a relationship between immigrant population size by any measure and violent crime, even when controlling for a variety of economic and demographic factors.

Compared to violent crime, drug crime rate tests provide somewhat different results. In this instance, the expanded regression did indeed show a significant but small association with Mexican nationals and undocumented immigrants in particular. There does appear to be a positive relationship between drug arrest rates, including sales and possession, and undocumented immigrant population size at the state level according to this data. However, the relative impact of this association remains weak. As noted above, a substantial increase in the state undocumented immigrant population results in only a minor estimated increase in drug arrest rates. Given the significant degree of unexplained variance in the drug crime models, we can see that while undocumented populations may have some relationship to state-level drug crime, there are likely other factors that are much more strongly associated.

Referring back to the hypotheses used to test the efficacy of the Trump Hypothesis here, we cannot demonstrate a significant relationship in *H1* comparing immigrants to violent crime, and only a weak relationship at best in *H2* for undocumented immigrants and drug-related crime. It should be noted that even in this instance, the relationship does not single out Mexican nationals as done in the Trump Hypothesis, but is only applicable to the broad population of undocumented immigrants. As tested here, we find no evidence in support of the Trump Hypothesis as it pertains to violent crime, and at most marginal evidence supporting a relationship to drug-related crime. Trump likely did not, in fact, uncover the determining factors linking immigration to violent and drug-related crime, particularly in regards to undocumented immigration coming primarily from Mexico. The findings in this case are consequently largely in line with the extant research on the immigrant-crime nexus. That is, there is no significant association between immigration and violent crime, while perhaps a weak association between undocumented immigration and drug-related crime at best.

Where does this leave the Trump Hypothesis and campaign pronouncements explicitly linking immigrants to violent and drug-related crime? Given that research discounting the immigrant-crime connection is almost as old as the declarations that immigrants disproportionately cause crime, this is an issue likely to remain in the public spotlight and continue to periodically flare up. The immigrant-crime relationship, as noted by Sayad (2004: 278-282) is a highly symbolic issue, one largely resistant to empirical evidence (Chen & Zhong, 2013: 220). As long as the United States continues to admit foreign nationals in any capacity, they are likely to remain a convenient target, especially during a campaign season with a crowded field of competitors. Candidates have to distinguish themselves

somehow, and there is little doubt that the Trump Hypothesis, for better or worse, served to distinguish its primary proponent.

This research makes its contribution not only in testing old assumptions about immigrants and crime using some of the most recent data available, but also in testing the new Trump Hypothesis and by extension one of the more attention-grabbing pronouncements by a political candidate. That such pronouncements largely fail to withstand empirical scrutiny may not perhaps come as a surprise, but they are worth investigating lest the public buy into campaign rhetoric at face value.

Some discussion of the limits to this study is also necessary. For one, this analysis only looks at crime using government statistics, which likely have some inherent bias. Rape remains notoriously under-reported, where the National Crime Victimization Survey, for example (ICPSR 2013), notes almost four times as many incidents of rape and sexual assault compared to UCR data. Perhaps more problematic here is the use of drug-related arrest rates. Relying solely on arrest rates rather than overall crime rates biases data only to those cases solved by arrest. It gives little indication of overall crime rates, and introduces additional reliability problems when considering differential levels of state-level enforcement. Another problem with the data here is the lack of state-level statistics for drug sale and possession. Overall drug-related arrests were available for each state, but only the regional breakdown of sales versus possession arrests. There could potentially be more state-level variation in the sales/possession arrest rates that is not accounted for here. As such, murder rates likely represent the most accurate group of data here, as there is less likelihood of murder figures to be misreported or misrepresented (Levitt 2004, 165; Wadsworth 2010, 538).

Limitations aside, there are significant advantages to using UCR data. Reporting standards are uniform, making definitions consistent across states and providing for accurate comparison. Government crime statistics are much more reliable indicators than incarceration rates and self-reported crime alone, for example. Some crimes indeed remain underreported and risk being mislabeled in official government statistics. However, other measures of crime bring their own significant limitations as well. While not perfect, Uniform Crime Statistics do at least give a good, comparative indication of the crimes we are concerned with here.

There can additionally be some shortcomings in using the state as the level of analysis. By concentrating on the state, the sample size is by definition somewhat small. Looking at cities, for example, could have greatly increased the sample size. However, city-level analysis runs into issues of selection bias in deciding which cities to include. City-level estimates of illegal immigrant populations can also be difficult to obtain in some instances and

reporting may not be standardized. With a state-level analysis we are able to include all cases, avoiding selection bias, and obtain estimates of illegal immigrant populations for the vast majority using a standardized estimation. We were still able to demonstrate statistical significance in many instances, although a larger sample would have certainly increased the efficacy of the results.

Choice of variables is an additional limitation to the analysis. The measure of immigrant population used includes only immigrant stock averaged over several years. Immigrant flows are not considered. Control variables are likewise limited, where a variety of factors aside from immigrant status and some demographic and economic indicators can influence a state's level of violent and drug-related crime. There is also likely to be some endogeneity between state poverty rate, unemployment and median income levels. However, taking into account Achen's (2005) caution against over-loading the regression model, we aim for a parsimonious test of immigrant populations against violent crime rates with straightforward results, balanced for good measure with some of the major explanatory factors identified in the literature.

Finally, some caution should be taken in consideration of the ecological fallacy (Robinson, 1950; Selvin, 1965). This analysis presents state-level results attempting to test for connections between immigrant populations and crime. Results do not indicate individual immigrant or non-immigrant propensity toward violent or drug-related crime, even in the instances where there were statistically significant relationships at the state level. As such, we cannot determine whether differences in crime rates come from immigrants committing more or less crime than native populations. We merely note statistically significant relationships, in aggregate, at state-level.

Going forward, future research can refine some of the tests here, particularly in regard to drug-related crime. Should detailed statistics of incidents rather than arrests be available, the extent of any existing relationship between immigrant populations and drug crime can be clarified. Likewise, others can further test the Trump Hypothesis using municipal or neighborhood-level data, should viable estimates of illegal immigrant populations and a feasible selection methodology be available. Larger studies of the immigrant-crime nexus may be further necessary. Although findings have been generally consistent for a long period of time in the United States, the periodic update of this line of research is worthwhile, especially at times when the country mulls immigration policy reform.

Conclusion

While political campaigns and popular media may be galvanized by colloquial statements linking immigration to crime, empirical evidence continues to point toward a more nuanced reality. This paper has tested a

recent iteration of the popular immigrant-crime argument, in this case a major tenant of the Donald Trump presidential campaign, dubbed here the “Trump Hypothesis”: that immigrants are disproportionately likely to commit violent and drug-related crime in the United States. By comparing immigrant populations to violent and drug-related crime rates by state, results demonstrate little support for the Trump Hypothesis. There is no apparent link between immigrant populations and violent crime, although there is some evidence of a small but significant association between undocumented immigrants and drug-related crime. These findings cast some doubt on the claims of the Trump Hypothesis, particularly assertions that undocumented Mexican immigrants are disproportionately “rapists” and “bring drugs”. Although the Trump Hypothesis will in all likelihood continue as a flashpoint of the 2016 Presidential campaign, it is useful and worthwhile to determine whether such campaign claims, and likewise popular sentiment, can withstand empirical scrutiny.

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Table 1: Variable Definitions

Variable	Definition
Violent Crime	Incidents of murder, rape (legacy definition), robbery and aggravated assault per 100,000 individuals
Murder	Incidents of murder and non-negligent manslaughter per 100,000 individuals
Rape	Incidents of rape (legacy definition) per 100,000 individuals
Drug Arrests	Number of drug arrests per state, including sales and possession, per 100,000 individuals
Drug Sales	Number of arrests per state for drug sales, per 100,000 individuals
Drug Possession	Number of arrests per state for drug possession, per 100,000 individuals
Foreign Population	Size of state foreign-born population per 100,000 individuals
Mexican Population	Size of state Mexican-born population per 100,000 individuals
Undocumented Immigrants	Estimated number of state undocumented immigrants, per 100,000 individuals
Undocumented Mexican Immigrants	Estimated number of state undocumented Mexican immigrants, per 100,000 individuals
Poverty Rate	State poverty rate
Unemployment	Percentage of workers unemployed in state
Median Income	State median household income
Age 15-24	Percentage of state residents, ages 15 to 24
Male	Percentage of male state residents
HS Education	Percentage of state residents over age 25 with at least a high school degree

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max	Obs
Violent Crime	356.64	179.70	114.9	1281.9	51
Murder	4.26	2.52	1.4	15.9	51
Rape	40.42	17.05	12.6	125.4	51
Drug Arrests	381.46	162.17	5.87	676.22	51
Drug Sales	67.08	29.09	1.02	124.27	51
Drug Possession	313.93	135.18	4.85	559.46	51
Foreign Population	8960.26	6070.53	1419.45	26899.35	51
Mexican Population	2135.2	2540.39	54.05	11041.21	51
Undocumented Immigrants	2385.13	1623.71	269.64	7914.95	48
Undocumented Mexican Immigrants	1440.28	1215.56	29.88	5514.90	41
Poverty Rate	15.16	3.36	8.7	24	51
Unemployment	6.66	1.55	2.9	9.3	51
Median Income	53130.24	8842.84	37963	72483	51
Age 15-24	14.03	0.75	12.4	16.17	51
Male	48.86	0.76	46.00	51.38	51
HS Education	87.61	3.21	81.20	92.27	51

Table 3: Correlations with Violent Crime and Drug-Related Arrests

	Violent Crime	Murder	Rape	Drug Arrests	Drug Sales	Drug Possession
Foreign	0.1660	-0.0583	-0.2569	0.1017	0.1008	0.0977
Mexican	0.0568	-0.1071	0.2401	0.1443	-0.0198	0.1797
Undocumented	0.1865	0.0620	-0.1831	0.2103	0.1483	0.2174
Undoc Mexican	0.0275	-0.1148	0.1593	0.1693	0.0078	0.2043
Poverty	0.3620**	0.5350***	0.3714**	-0.1109	-0.2028	-0.0929
Unemployment	0.2843*	0.446***	-0.1436	-0.1549	-0.1410	-0.1591
Income	0.0231	-0.1580	-0.2743*	-0.0368	0.0220	-0.0551
Age 15-24	0.2430	0.2866*	0.2787*	-0.2784*	-0.3388**	-0.2708*
Male	-0.6431***	-0.6658***	0.1135	0.0968	0.0366	0.1255
HS Education	-0.2362	-0.4193***	0.0551	-0.1391	-0.0828	-0.1504

* = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$

Table 4: Regression Results – Violent Crime

	Violent Crime				Murder				Rape			
	M1a: Foreign	M2a: Mexican	M3a: Undoc	M4a: Undoc Mexican	M1b: Foreign	M2b: Mexican	M3b: Undoc	M4b: Undoc Mexican	M1c: Foreign	M2c: Mexican	M3c: Undoc	M4c: Undoc Mexican
Constant	303.22***	342.19***	309.36***	382.67***	4.13***	4.24***	3.79***	5.10***	33.94***	29.42***	33.92***	27.18***
Foreign	0.01				0.00				-0.00*			
Mexican		0.01				0.00				0.00		
Undoc			0.03*				0.00				-0.00	
Undoc Mexican				0.00				-0.00				0.00
N	51	51	48	41	51	51	48	41	51	51	48	41
R2	0.0544	0.0216	0.0937	0.0008	0.0029	0.0016	0.0332	0.0132	0.0979	0.0039	0.0535	0.0254

* = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$

Table 5: Regression Results – Drug Arrests

	Drug Arrests				Drug Sales				Drug Possession			
	M1a: Foreign	M2a: Mexican	M3a: Undoc	M4a: Undoc Mexican	M1b: Foreign	M2b: Mexican	M3b: Undoc	M4b: Undoc Mexican	M1c: Foreign	M2c: Mexican	M3c: Undoc	M4c: Undoc Mexican
Constant	374.51***	357.48***	346.84***	359.49***	66.29***	66.55***	63.56***	68.21***	308.23***	290.28***	283.38***	290.32***
Foreign	0.00				0.00				0.00			
Mexican		0.01				0.00				0.01		
Undocumented			0.02				0.00				0.02	
Undocumented Mexican				0.02				0.00				0.02
N	51	51	48	41	51	51	48	41	51	51	48	41
R2	0.0008	0.0299	0.0298	0.0287	0.0003	0.0004	0.4696	0.0001	0.0008	0.0420	0.0329	0.0417

* = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$

Table 6: Regression Results – Violent Crime, Expanded

	Violent Crime				Murder				Rape			
	M1a: Foreign	M2a: Mexican	M3a: Undoc	M4a: Undoc Mexican	M1b: Foreign	M2b: Mexican	M3b: Undoc	M4b: Undoc Mexican	M1c: Foreign	M2c: Mexican	M3c: Undoc	M4c: Undoc Mexican
Constant	-279.02	-160.85	-288.34	7309.37**	29.91	15.07	26.77	70.29*	-614.62***	-638.28***	-626.03***	-262.71*
Poverty Rate	53.73***	52.64***	54.14**	40.96**	0.65***	0.66***	0.62***	0.63**	3.19***	3.12**	3.24***	3.01***
Unemployment	11.23	11.52	6.76	-11.15	0.32	0.23	0.26	0.00	0.63	0.45	0.7	-1.29
Median Income	0.01**	0.01**	0.02**	0.01	0.00***	0.00**	0.00**	0.00	0.00	0.00	0.00*	0.00
Age 15-24	27.11	27.66	32.65	-19.42	0.29	0.50	0.51	-0.00	4.04*	4.57**	5.06**	1.31
Male ratio	-45.51	-49.45	-45.88	-192.36***	-0.92**	-0.74*	-0.96**	-1.72**	7.71***	7.78***	7.66***	0.87
HS Education	9.43	10.60	9.02	20.79*	-0.08	-0.01	0.01	0.04	1.42*	1.68**	1.48*	2.08***
Foreign	-0.00				-0.00**				-0.00			
Mexican		0.00				-0.00				-0.00		
Undocumented			-0.00				-0.00				-0.00	
Undocumented Mexican				0.04*				-0.00				0.00
N	51	51	48	41	51	51	48	41	51	51	48	41
R2	0.4651	0.4657	0.4597	0.5929	0.6504	0.6270	0.6138	0.6508	0.4412	0.4318	0.4893	0.5007

* = p<0.1, ** = p<0.05, *** = p<0.01

Table 7: Regression Results – Drug –Related Arrests, Expanded

	Overall Drug Arrests				Drug Sales				Drug Possession			
	M1a: Foreign	M2a: Mexican	M3a: Undoc	M4a: Undoc Mexican	M1b: Foreign	M2b: Mexican	M3b: Undoc	M4b: Undoc Mexican	M1c: Foreign	M2c: Mexican	M3c: Undoc	M4c: Undoc Mexican
Constant	6302.39***	7517.40***	5356.03**	7741.52**	1466.19***	1595.03***	1306.09***	1490.06**	4848.19**	5939.88***	4066.60**	6237.99***
Poverty Rate	-45.63**	-51.98***	-45.59**	-36.70	-10.63***	-11.23***	-10.38***	-8.01**	-36.04**	-41.79**	-36.27**	-29.69
Unemployment	-29.94	-24.93	-36.81*	-36.69	-4.25	-3.68	-5.05	-5.30	-25.62	-21.14	-3138*	-31.02
Median Income	-0.01*	-0.01**	-0.02***	-0.01	-0.00**	-0.00**	-0.00***	-0.00	-0.01*	-0.01**	-0.01**	-0.01
Age 15-24	-11.68	-16.65	-14.68	-60.99	-3.26	-3.96	-4.28	-11.83	-8.95	-13.31	-10.94	-49.83
Male ratio	-40.45	-68.95*	-43.53	-64.34	-12.48**	-15.31**	-12.72**	-11.60	-26.56	-52.29	-29.43	-50.65
HS Education	-25.48*	-21.81*	-10.36	-25.16*	-4.73**	-4.47**	-2.36	-5.26**	-21.24*	-17.86*	-8.54	-2049*
Foreign	0.00				0.00				0.00			
Mexican		0.02*				0.00				0.02*		
Undocumented			0.05**				0.01**				0.04**	
Undocumented Mexican				0.03				0.00				0.03
N	51	51	48	41	51	51	48	41	51	51	48	41
R2	0.2462	0.2878	0.3365	0.2912	0.3243	0.3359	0.3754	0.3274	0.2392	0.2883	0.3368	0.2963

* = p<0.1, ** = p<0.05, *** = p<0.01