April 2018
Volume: 15, **No**: 2, pp. 197 – 214
ISSN: 1741-8984
e-ISSN: 1741-8992
www.migrationletters.com

MIGRATION LETTERS

Article history: Received 29 June 2017; Accepted 29 November 2017

Immigration and Violent Crime in California, 1980-2012: Contextualization by Temporal Period and Race/Ethnicity

Ben Feldmeyer[±]
Darrell Steffensmeier[¥]
Casey T. Harris[§]
Shahin Tasharrofi[∞]

Abstract

In light of concerns surrounding the alleged link between immigration and crime, our goal is to investigate trends in violent crime rates by race/ethnicity within and between counties with differing degrees of immigration. Using unique data from California for the 1980 to 2012 period, we find (1) that after an initial decade of stability, violence rates fell beginning in the 1990s during a period of rapid immigration growth. Additionally, (2) this pattern is observed for all offenses, race/ethnic groups (including Hispanics), and was near uniform in counties with both high and low levels of immigrant concentration and growth. Despite fears of immigration fueled crime waves, our findings suggest that high immigration has not worsened the problem of violent crime and that places with both low and high immigrant concentrations and growth experienced parallel declines in crime from 1990 to 2012.

Keywords: immigration policy; Latino/as; crime; violence; media; stereotypes.

Introduction

Concerns in recent years about social problems like crime and violence in the United States have intertwined with another major social trend – the rapid increase in levels of immigration. These population shifts have stemmed largely from Mexico, as well as Central and South America, and have substantially contributed to growth of the Hispanic population, which is now the largest ethnic minority group in the United States (U.S. Census Bureau, 2017). As in prior waves of immigration (e.g., early 20th century), the recent immigration surge has become one of the most contentious issues on the nation's policy agenda. A sizable portion of the general public, along with many opinion makers, believe that recent immigration flows are harming the American way of life and contributing in particular to crime (Rumbaut & Ewing, 2007), including serious forms of violence like murder and robbery. Recent anti-

[±] Ben Feldmeyer, School of Criminal Justice, University of Cincinnati, Cincinnati, Ohio, United States. E-mail: ben.feldmeyer@uc.edu.
[¥] Darrell Steffensmeier, Department of Sociology and Crime, Law, and Justice, The Pennsylvania State University, University Park, PA, United States. E-mail: d4s@psu.edu.
[§] Casey T. Harris, Department of Sociology and Criminology, University of Arkansas, Fayetteville, AR, United States. E-mail: caseyh@uark.edu.
[∞] Shahin Tasharrofi, School of Criminal Justice, University of Cincinnati, Cincinnati, Ohio, United States. E-mail: tasharsn@mail.uc.edu.

immigrant policies across a number states and localities are based in large part on the assumption that rates of serious crime and violence are driven by immigration flows. As a result, and similar to what their predecessors had faced at the beginning of the 20th century, social scientists and policy makers are confronted with the task of trying again to understand the impact of immigration on our communities, on our criminal justice systems, and on the immigrants themselves.

In this paper we use California data (CAL) on violent crime and U.S. Census data documenting immigrant flows over the 1980 to 2012 time frame to investigate trends in both (a) levels of immigration and (b) rates of violent crime by race/ethnicity. Broadly, our goal is to provide a straightforward comparison of crime patterns in places with large and growing shares of immigration versus places with lower levels of immigration for the decades of the second great migration. The CAL data are strategic because (1) California is home to more immigrants than any other state (approximately 25 percent of the foreign-born population in the United States) (U.S. Census Bureau, 2017), and (2) California arrest data offer one of the longest running sources of data on Hispanic crime in the United States (i.e., 30 plus years of data) that also provide "clean" categories of White and Black offending that are not confounded with Hispanic arrests (see Steffensmeier et al., 2011). Furthermore, (3) Hispanic populations in California and in the CAL data largely reflect those of Mexican origin (84 percent in California) (Pew Research Center, 2014), which makes the CAL data particularly well-suited for addressing public fears and political rhetoric surrounding Mexican immigration's effects on crime. This sentiment about Mexican immigration was voiced perhaps most memorably during the 2016 presidential primary race when then candidate Donald Trump claimed, "When Mexico sends its people, they're not sending their best…They're bringing crime. They're rapists. And some, I assume, are good people" (Rappeport, 2015).

The current study addresses several gaps in extant research on immigration and violent crime. First, there has been a shortage of empirical studies examining the immigration-crime nexus over time (for a few exceptions, see Barranco et al., 2017; Ferraro, 2016; Martinez et al., 2010; Ousey & Kubrin, 2009; Wadsworth, 2010). Our study examines the immigration-violence issue across more than three decades. Second, most analyses of the immigration-crime link have focused on global or "total" measures of violent crime with little attention paid to possible subgroup differences, whereas our analysis considers possible unique effects by race and ethnicity (White, Black, and Hispanic). Third, most analyses examine the effects of immigration on violent crime net of macro-social controls (e.g., poverty, unemployment). Although this is common practice in social science analyses, the effects produced from these statistical models tend to mask the overall or total relationship between immigration and

crime. As such, prior analyses may be seen as less than satisfying for many opinion makers and the general citizenry, where concern rests on whether immigration leads to more/less crime overall (total effects) and not whether there is an immigration effect "net of statistical controls" (a direct effect). Thus, in the current analyses, we compare patterns and trends in violent crime between counties with (1) low versus high levels of immigration and (2) low versus high growth in immigrant populations. By comparing counties in California with varying immigrant concentration and growth, our analysis offers a clear, straightforward assessment of the overall immigration-violent crime link that is a central feature of longitudinal, macro-level comparative research.

Immigration-Crime Research

There has been a steady growth in studies using both individual and ecological data to assess the relationships between contemporary immigration flows and risky behaviors such as crime or violence. The general finding from individual-level studies (e.g., studies based on self-reported behavior of individuals) is that prevalence levels for risky behaviors like violence among recent immigrants, and especially Hispanics, are similar or even lower than among native-born populations (Bui, 2009; Greenman & Xie, 2008; Vega et al., 1993; 1998; 2011). The findings from ecological studies across spatial units like neighborhoods or cities, which rely mainly on police-recorded incidents of crime or violence (e.g., homicide), are generally consistent with the self-reported data. These studies indicate that the effect of immigration on community rates of violence is either neutral or is generally in the direction of lowering levels of violent crime (Ousey & Kubrin, 2009, 2017; Feldmeyer & Steffensmeier, 2009; Harris & Feldmeyer, 2015; Martinez, 2002; Martinez et al., 2010; Wadsworth, 2010).

However, the extant ecological research on immigration and violence is largely limited to cross-sectional analyses that focus on violence for the population as a whole. In contrast, few if any studies assess ecological effects of immigration on rates of violence across low versus high immigrant destination places and across race-differentiated rates (White, Black, Hispanic comparisons) over time. The ecological impact of immigration is potentially complex. Even if immigrants themselves do not frequently engage in violence or commit other law-violating behavior, immigration flows may either increase or lessen rates of violent behaviors by disrupting or improving social conditions within communities. Furthermore, research suggests that immigration effects on violent crime may be contextualized by race. Specifically, several recent studies indicate that higher immigrant presence has either small protective effects or no impact on White and Hispanic rates of violence (Feldmeyer & Steffensmeier, 2009), but others suggest it may increase Black rates of violence particularly in areas characterized by high levels of Black unemployment (Shihadeh & Barranco, 2010).

Theoretical Foundations

Our conceptual framework and methodological approach are guided by prominent comparative-ecological perspectives that social scientists and health scholars have used to anticipate the possible consequences of immigration on social problems like violent crime. Scholars first applied these theories to earlier waves of European immigration in ways that highlighted the potential adverse effects – at least in the short-term – between immigrant presence and detrimental social outcomes (e.g., crime, suicide, mental illness). However, the basic tenets of the theories are immigration-crime neutral, plausibly arguing that immigration may increase, decrease, or have neutral or offsetting effects on crime.

First, *strain-disorganization* perspectives, which focus on the challenges and stresses that immigrants may face in their new environment, suggest that immigrants may have more opportunities and pressures toward crime than U.S.-born populations. Scarcity of resources and high levels of social and economic strains (underfunded schools, high poverty rates, and strains associated with adjustment to a new language and way of life) could lead to greater offending among immigrants settling in disadvantaged communities. Moreover, these perspectives suggest that, even if immigrants themselves do not have high levels of criminal offending, the influx of new residents with a different language, culture, and few economic resources could increase overall levels of offending among all residents. According to this perspective, immigration flows may destabilize the local community and reduce its economic resources in ways that make it more difficult to control or address social problems like crime (see reviews in Feldmeyer, 2009; Lee et al., 2001; Ousey & Kubrin, 2009).

In contrast, a second "immigrant revitalization" approach considers how *social capital* resources, such as kinship ties and business entrepreneurship may be linked with immigration and strengthened in ways that decrease violent crime because they mitigate or offset the strain and disorganizing forces that earlier scholars associated with immigration. This relatively recent perspective suggests that traditional interpretations built from observations of White Western European immigrants and stressing the potential criminogenic effects of immigration are less relevant for recently arriving Latin American immigrants (Alba & Nee, 1997; Portes & Rumbaut, 2006). Instead of "destabilizing" neighborhoods, immigrants may "revitalize" communities by contributing to protective community-level forces and institutions (e.g., traditional family structures, attachments to the labor force) that provide residents with buffers against violence (Martinez et al., 2010; Ousey & Kubrin, 2009). Immigration attracts new businesses, churches, social services, and economic growth that may cater to the growing immigrant population but could benefit all members of the community. Taken together, these perspectives (along with the violent

crime literature more generally) suggest the possibility of multiple influences of immigration on violent crime with revitalizing effects for some population groups, potential destabilizing or harmful effects for others, or a combination of these effects that offset to produce little overall effect of immigration on violent crime even across population subgroups.

The Current Study

Drawing on these themes, we address the following questions in our assessment of California's violent crime trends over the 1980 to 2012 period as disaggregated by low versus high immigrant counties: (1) What are the overall trends in violence and immigration and do they vary by low versus high immigrant locales? (2) Are crime patterns over time consistent across race/ethnic groups? In interpreting our findings, we focus in particular on the broader question of how immigrant flows are associated with race/ethnic-disaggregated violent crime. To the extent that trends show greater declines in violent crime in high than low immigration counties, we might infer that recent immigrant flows have tended to reduce violent crime in California (whereas a smaller decline in trends would suggest that the recent flows have tended to increase violent crime). If trends are similar across types of immigrant contexts (low versus high), we then would be more inclined to conclude that recent immigrant flows have had mostly neutral effects on recent crime trends and/or that the rates of both sets of counties are influenced by similar social and legal forces, independent of any unique effect that might be attributed to immigrant flows. Additionally, different trends by racial or ethnic group would suggest that immigration has unique effects on violence across demographic subgroups.

Data

Data on arrests for violent offenses disaggregated by race/ethnicity, county, and year are drawn from the California Uniform Crime Reporting program (CAL) for the 1980 to 2012 period (Steffensmeier et al., 2011). Unlike the FBI's Uniform Crime Reports (UCR) and many other commonly used crime databases, CAL offers Hispanic identifiers and provides more than thirty years of data on Hispanic arrests,[1] as well as a coding for the arrestee's race (White, Black, Asian, Native American) for all offense categories and all years covering the 1980 to 2012 period. Thus, CAL provides "clean" counts of arrests for White and Black groups that are not confounded with Hispanic figures (see

[1] Other than a handful of years in the 1980s and post-2013 (which have limited coverage across agencies; United States Department of Justice, 1986; 2015), the UCR offers no information on Hispanic crime. Instead, Hispanic arrests in the UCR and other official crime databases are commonly classified as "White" (more than 90%) or as one of the other racial categories (Steffensmeier et al., 2010; 2011). Offender's race in the CAL database is determined primarily based on self-identification (California Department of Justice 2006). However, racial/ethnic categorization practices may vary across jurisdictions when offenders do not self-identify their race/ethnicity.

Steffensmeier et al., 2010; 2011).[2] Moreover, the CAL data are well suited for the current project because they provide race/ethnic-disaggregated information for offenses other than homicide (versus the Supplemental Homicide Reports and National Violent Death Reporting System). Data on county immigrant populations for the years 1980, 1990, and 2000 are drawn from the U.S. Census Bureau's decennial files (for Figures 1 and 3 and supplemental analyses) and the American Community Survey for 2012 (for Figure 2).

Violence Measures

Using CAL data, the current analysis focuses on the four violent index crimes of homicide, rape, robbery, and aggravated assault, as well as the Violent Index combining all four violence measures. Our analysis focuses on these five offense categories because they are generally regarded as reliable measures of serious violent crime and are less susceptible to concerns about enforcement biases associated with arrest data, especially for homicide and robbery (but less so for rape) (see LaFree et al., 2008; Steffensmeier et al., 2010; 2011).

Unit of Analysis and Immigration Contexts

The unit of analysis is the county, which we use because (a) county boundaries are stable over time, (b) they can easily be separated into low and high immigrant contexts, and (c) they provide greater coverage of California arrests than analyses focusing only on select cities or urban areas. We distinguish "high" immigration counties (the top third of all California counties) from "low" immigration counties (the bottom two-thirds) using the percent of their population that was foreign-born in 2012, which ranges from a low of 7.6 to a high of 36.8. It is important to note that categorizations of "high" and "low" immigrant counties remained highly consistent over time, in which only four counties switched from high to low (or vice versa) between 1980 and 2012. Los Angeles (LA) County was removed from the "high" and "low" categories because it was an extreme outlier in terms of both population size and arrest rates across the series.[3] After assigning counties to the "high" or "low" categories, we pooled their arrest counts and calculated White, Black, and Hispanic annual arrest rates for each of the four offenses and the Violent

[2] In preliminary analyses, we examined Asian crime patterns but found that Asian populations and arrests were largely isolated to a small handful of counties in California (more than 70% of the Asian population was in 9 counties). Asian arrests were also extremely rare for serious offenses like homicide and robbery. As a result, Asian arrest trends showed little variation over time or between high and low immigrant counties – i.e., they had rates at or near zero for many counties and time points with occasional sharp spikes in years when a few arrests did occur.

[3] Including Los Angeles in any grouping dramatically increased the pooled arrest rates for any category in which it was placed, but the substantive findings concerning the time trends did not change for any of the offenses or race/ethnic groups. Notably, Los Angeles would have been in the "high" percent foreign-born group (due to its consistently large share of foreign-born residents) but in a "low" growth category in supplemental analyses examining immigrant growth and violence (due to small percent increases in its immigrant population). Results for Los Angeles County are available upon request.

Index.[4] Notably, in supplemental analyses, we explored six alternative methods for classifying "high" versus "low" immigrant counties (including comparisons of high/low rates of immigrant growth, which are presented in the results section), each of which produced substantively similar findings to those shown here.[5]

Analytic Strategies

In order to examine and compare arrest trends across immigrant contexts, we use two strategies. First, we provide visual plots of immigration trends and plots of annual arrest rates for the "high" and "low" groups, disaggregated by race/ethnicity and offense type for the 1980 to 2012 period. All arrest rates are plotted with three-year moving averages in order to smooth out year-to-year fluctuations in each series and to offer a clear and straightforward method of examining both overall levels of offending and changes in arrests over time in counties with "high" versus "low" levels of immigration.

Second, we use Augmented Dickey-Fuller (ADF) time series analyses to formally test for changes in the arrest gap between the "high" and "low" group for each offense and race/ethnic-group. As an advanced econometric time-series method, the ADF test assesses whether shifts occurring over time represent convergence/divergence in rates between "high" and "low" counties. In doing so, the ADF test evaluates whether there are *systematic and statistically significant* year-to-year changes in arrest patterns across all data points throughout the 1980 to 2012 period, while accounting for (a) random fluctuations or "shocks" in the offense series, (b) the long-term effects of these shocks, and (c) autocorrelation of residuals that can create random walks with the appearance of real upward or downward trends that are not statistically significant (for more detailed treatments of ADF methods, including the application to crime trends, see Britt, 2001; Hamilton, 1994; LaFree, Baumer, & O'Brien, 2008; O'Brien, 1999; Steffensmeier et al., 2011).[6]

---

[4] All rates were calculated based on the at-risk population, ages 10-64.

[5] These six alternative methods for classifying "high" and "low" immigration counties included the following: (a) "high" and "low" based on those above and below the mean percent foreign-born, (b) "high" and "low" based on foreign-born growth in a county (percent increase) from 1980 to 2012, (c) three groupings of "high," "moderate," and "low" based on percent foreign born in 2012, (d) three groupings of immigrant growth based on "high," "moderate," and "low" percent increase in the foreign-born population from 1980-2012, (e) "high" and "low" based on percent foreign-born in 1980, and (f) "high" and "low" based on the number of foreign-born residents in a county. All of these methods produced substantively similar results, though some (especially those with greater numbers of categories) showed greater volatility from year to year for rare offenses like homicide and robbery.

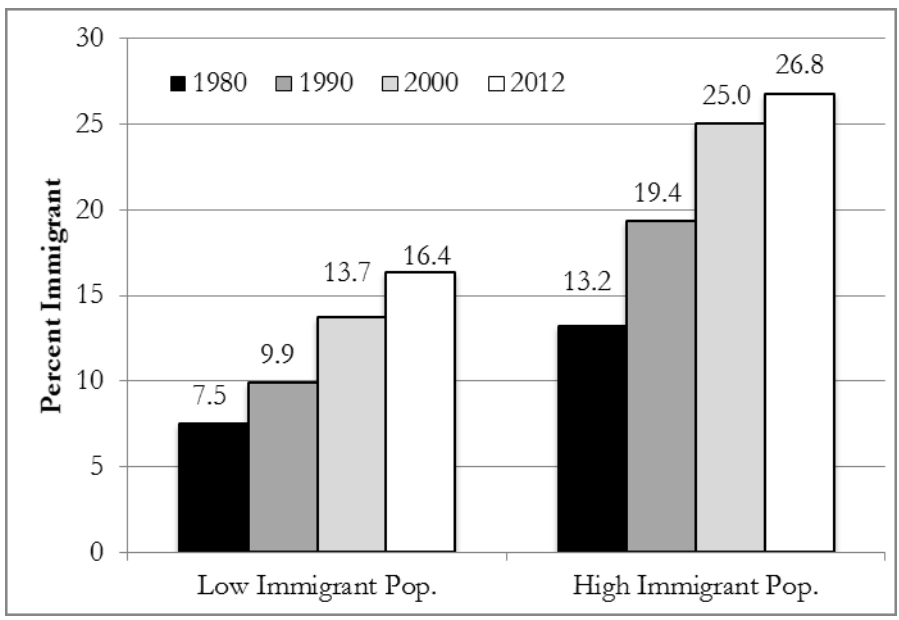
[6] In applying ADF tests, the arrest gap between "high" and "low" counties is measured using the logged arrest rate-ratio (high divided by low for each race/ethnic group and offense [see Table 1 for formula]). Results of the ADF test indicate whether the arrest gap between high and low counties has experienced significant divergence (widening gap), convergence (narrowing gap), or is stable/trendless.

In addition to the ADF tests, we estimated bivariate regressions between the "high" and "low" series in order to identify simple year-to-year relationships between violence rates in our two immigrant destination groups. The correlations produced from these regressions offer a straightforward tool for measuring the degree to which "high" and "low" county arrest rates are associated over time, where a maximum value of r = 1.0 reflects perfect uniformity in rates between 1980 and 2012. Notably, a high value would also suggest that the effects of immigration on violence are similar between high and low immigrant counties.

Results

Figure 1 provides a visual display of the percent foreign-born broken out by low and high immigrant counties in California. Notably, at all time points, the "high" immigrant counties have substantially greater shares of foreign-born residents than the "low" group. For example, immigrants comprise 26.8 percent of the population in high immigration counties in 2012, whereas the foreign-born percentage in low counties was 16.4 percent in 2012. Although different in terms of the level of percent foreign-born, both low and high immigrant counties experienced large and steady growth in immigrant populations from 1980 to 2012, more than doubling from 7.5 to 16.4 (low immigrant counties) and from 13.2 to nearly 27 percent (high immigrant counties).

Figure 1. Percent Immigrant over Time by County Type



We turn next to the central focus of our analysis – examining and comparing violence trends across "low" and "high" immigrant contexts over time. Figure 2 and offers visual plots of arrest rates for "low" and "high" immigrant counties, disaggregated by offense type and race/ethnicity. The plots reveal the following.

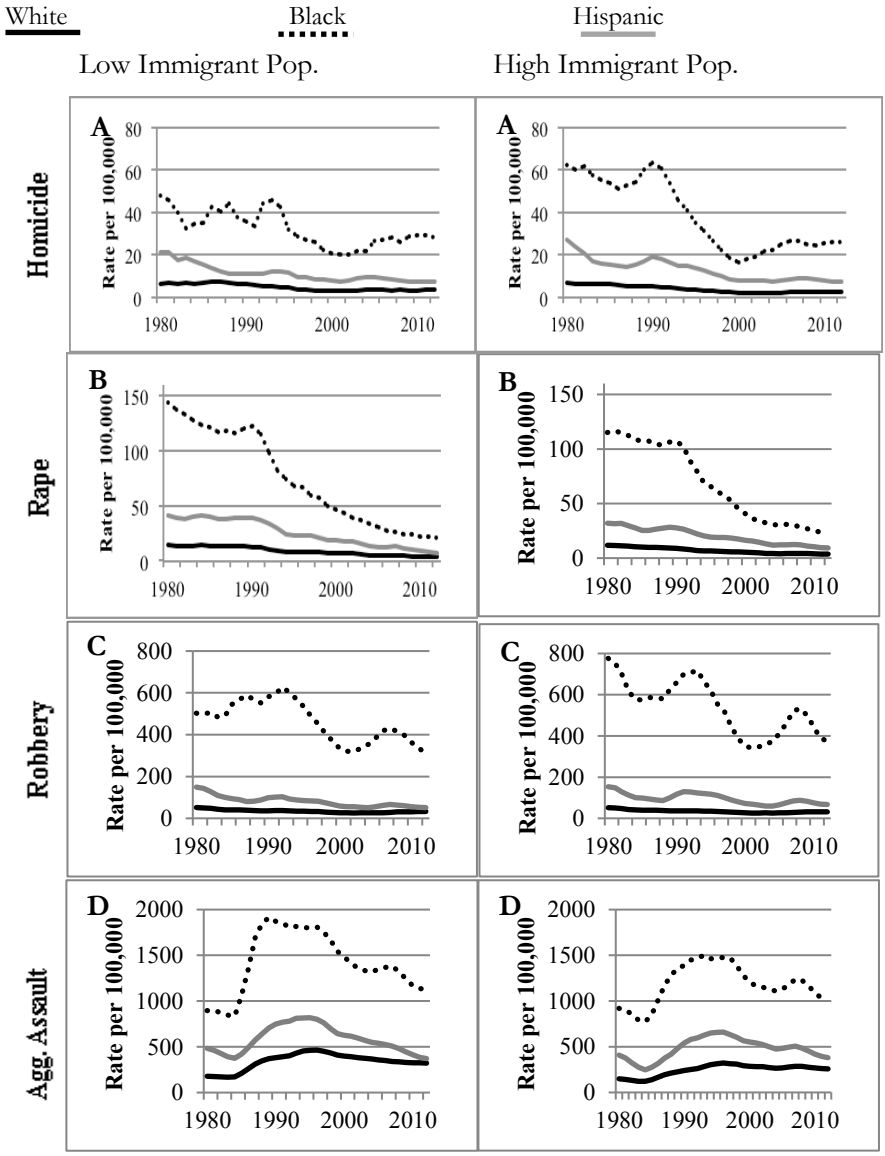
First, we find two distinct temporal periods or regimes showing (a) an initial decade of relative stability in violence (1980 to early 1990s), followed by (b) a period of consistent and sizable decline in violence (early 1990s to 2005 and beyond) with a short-term uptick in arrest rates around 2005. Notably, these two temporal patterns of stability and then decline are generally consistent across all five measures of violence. However, the declines from 1990 to 2012 are more consistent and steady for some offenses than for others. For example, homicide and rape arrest rates (and, to a lesser degree, robbery) experienced steady declines from 1990 to 2005, whereas aggravated assault and index violence (which is weighted heavily by aggravated assault) saw some upward shifts around 1990 before beginning a steady decline throughout the next two decades. In addition, the 2005 uptick in arrest rates was sharper for robbery and homicide than for rape and assault. However, on the whole, the two temporal patterns in arrest for violence are largely consistent across offense type.

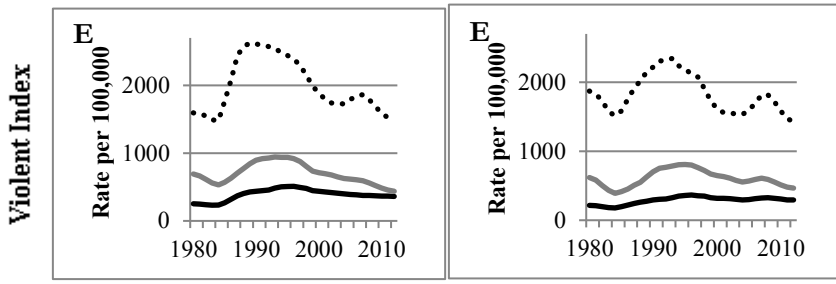
Second, we find that the trends in violence are remarkably similar across the low versus high immigration counties. Figure 2 shows that both low and high immigrant counties show the same two temporal patterns in violence described above – (a) an initial decade of stability in the 1980s followed by (b) a period of sharp decline in violence (1990s to 2005) with a short uptick late in some of the series.

Third, these patterns are mirrored across race/ethnicity with Whites, Blacks, and Hispanics experiencing similar upward and downward shifts in violence from 1980 to 2012, regardless of immigrant concentration. Notably, there are a few slight variations in the arrest series across race/ethnic groups. Black arrest rates saw more volatility in upward and downward shifts compared to the more stable and gradual shifts in Hispanic and White trends. However, outside these subtle differences, temporal trends in violence appear to move in uniform ways across race/ethnic groups and across differing immigrant contexts.

For a more robust comparison of violence trends across immigrant contexts, we turn to Table 1, which provides (1) the results of the ADF tests examining changes in the arrest gap between low and high immigrant counties and (2) correlations in arrest trends between low and high immigrant counties obtained from bivariate regressions. Recall, the ADF tests provide a means of assessing whether arrest rates across the low and high groups have experienced a widening gap (divergence), a narrowing gap (convergence), or have moved in tandem over time (trendlessness/stability in the arrest gap).

Figure 2. Trends in (A) Homicide, (B) Rape, (C) Robbery, (D) Agg. Assault, and (E) Index Violence Arrests for Low Immigrant Concentration and High Immigrant Concentration Counties





The results of the ADF tests reinforce the findings from the figures described above. For nearly every offense and race/ethnic category, the arrest gap between low and high immigrant counties was trendless, indicating that violence rates in the low and high groups moved in tandem. For all five White offense categories, low and high immigrant counties experienced parallel trends in violence, as indicated by the trendless arrest gaps shown in Table 1. Similarly, Black and Hispanic arrest trends were parallel across low and high immigrant counties for homicide, rape, and robbery. Thus, outside of two exceptions (Black and Hispanic assault and Index Violence, which is heavily weighted by arrests for assault), the results of the ADF tests provide strong evidence that the rate of change in arrests for nearly all offenses and race/ethnic groups did not systematically vary over time based on the size of the foreign-born population.[7]

To provide a more intuitive comparison, we turn to the correlation coefficients (r) shown in Table 1, which indicate the degree to which arrest trends are associated between low and high immigrant counties. The results again show strong parity in violence patterns between the low and high groups. Specifically, the correlations are all at or above r = .85, and the majority are above r = .90 (with some, like rape, reaching as high as r = .99), indicating that arrest rates in low and high counties were nearly uniform over time. Stated differently, patterns of arrests in high immigrant counties predict approximately 90 percent or more of the variation in arrest rates for low immigrant counties and vice versa. Furthermore, these patterns persist across race and ethnicity partitions, indicating the robust uniformity in trends. Taken together, the correlations and ADF test results reinforce the findings from the visual plots – for nearly all offenses and race/ethnic groups, high immigration counties experienced the

[7] A closer review of the Black and Hispanic assault and Violent Index series indicates that the divergence between high and low counties was likely due to differences in peak assault rates emerging in the early 1990s when low immigrant counties had much higher peak levels for Black and Hispanic assaults than did high immigrant counties. Yet, by 2012 these rates had fallen to similar levels in both high and low immigrant counties. Notably, these divergent effects were highly vulnerable to the number of lags estimated in the ADF tests and dropped in and out of significance depending on model specifications in preliminary analyses.

same patterns of stability (1980 to 1990s) and then decline (1990 to 2012) in violence rates observed in low immigration counties.

Table 1. Augmented Dickey Fuller (ADF) Tests and Pearson's Correlations (r) for Trends in High vs. Low Immigrant Population Counties for California Race-Specific Violent Arrests, 1980-2012

	White			*Black*			*Hispanic*		
Offense	ADF Test		r	ADF Test		r	ADF Test		r
Homicide	-.003	Trendless	.957	-.006	Trendless	.847	-.003	Trendless	.885
Rape	.002	Trendless	.976	.002	Trendless	.996	.006	Trendless	.980
Robbery	.002	Trendless	.966	.002	Trendless	.882	.001	Trendless	.934
Agg. Assault	.002	Trendless	.931	.004*	Divergence	.941	.008*	Divergence	.874
Violent Indx.[a]	.001	Trendless	.912	.004*	Divergence	.894	.006*	Divergence	.878

* p<.05, ** p<.01, *** p<.001

Note: Based on unit root tests, all series were treated as difference stationary except as marked. Following LaFree, Baumer, and O'Brien (2006), difference stationary series were estimated by regressing the first differenced series on an intercept and any necessary additional lagged differences. Non-differenced stationary series were regressed on a constant, linear trend, and any necessary autoregressive terms to adjust for autocorrelation in the series. The Augmented Dickey–Fuller first differenced equation is specified as $yt - yt - 1 = \alpha + \delta 1(yt - 1 - yt - 2) + \delta 2(yt - 2 - yt - 3) + ... \mu t$.

a. We bracket off the Violent Index category because it is heavily weighted by the large volume of arrests for aggravated assault.

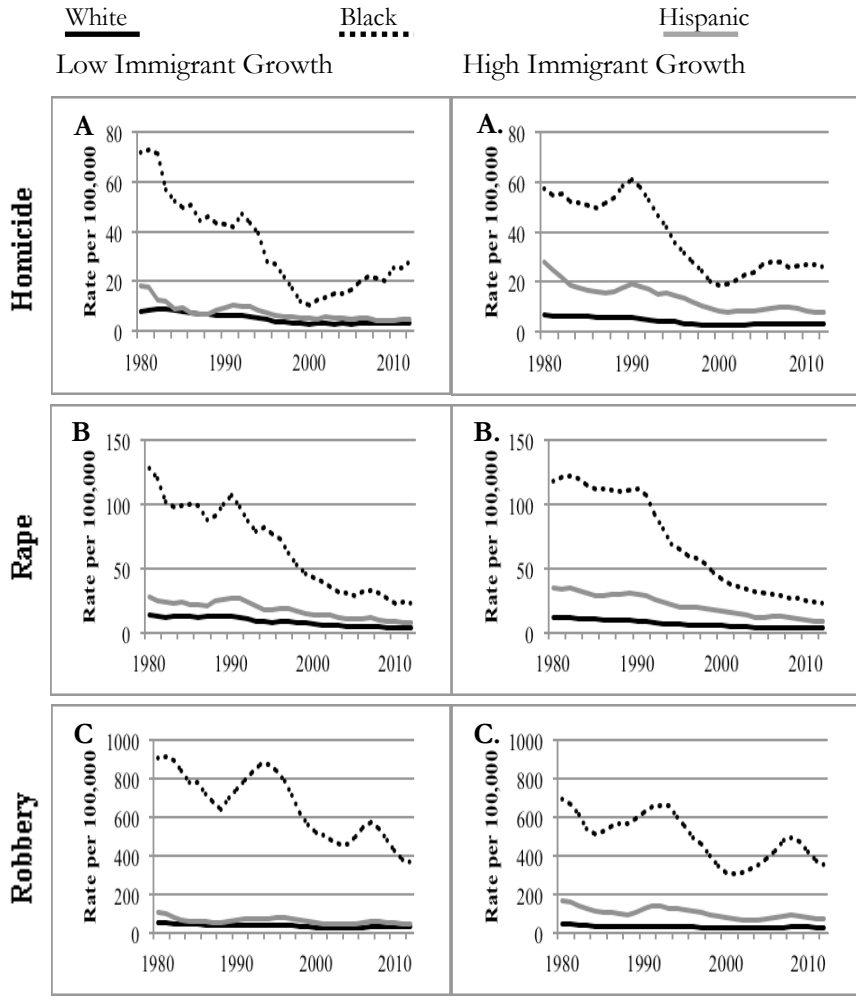
The analysis presented thus far compares trends in violence across places with varying levels of immigrant concentration. However, it is also important to consider how *changes or growth* in immigration are related to violence trends over the 1980 to 2012 period. To address this issue, we replicate our earlier analysis but divide counties into "high immigrant growth" and "low immigrant growth" categories based on their percent change in foreign-born populations covering the 1980 to 2012 time frame. Similar to our earlier categories, high growth counties included the one-third of counties with the largest percentage increase in immigration covering the study period, and low immigrant growth counties included the remaining counties with the lowest percentage increases in foreign-born populations.[8]

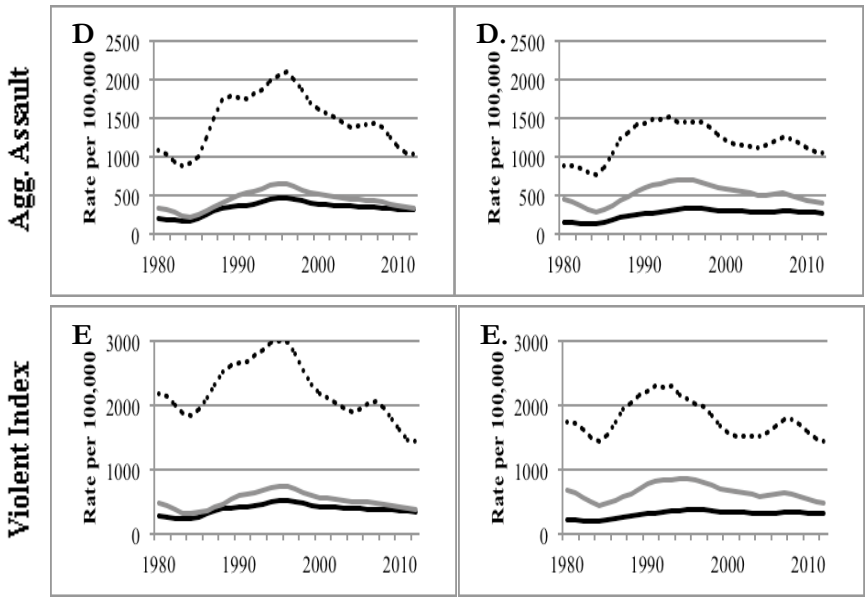
The results of this supplemental analysis are shown in Figure 3. As seen in our earlier analysis, we again find that violence trends were remarkably consistent across counties with differing immigrant contexts. Counties with the fastest

[8] All counties in California experienced growth in immigration from 1980 to 2012, but counties varied widely in the percent increase seen during this period. Notably, there was only modest overlap between counties that had high immigrant concentration based on 2012 numbers and those that had high growth. In fact, counties with consistently large immigrant populations in both 1980 and 2012 were often considered low growth counties because they saw little relative change in their immigrant percentage over time.

immigrant growth from 1980 to 2012 experienced nearly the same trends in violence seen in counties with little or lower levels of immigrant growth. Across nearly all offenses and race/ethnic groups examined here, we again

Figure 3. Trends in (A) Homicide, (B) Rape, (C) Robbery, (D) Agg. Assault, and (E) Index Violence Arrests for Low Immigrant Growth and High Immigrant Growth Counties





see a short period of stability (1980s) followed by a period of declining violence (1990 to 2012) in places with both high and low immigrant growth. Furthermore, as Figure 3 illustrates, trend patterns closely parallel the trends observed in our earlier comparisons of counties with "high" versus "low" levels of immigrant concentration. Taken together, the results of Figures 2 and 3, as well as Table 1, confirm that across places with both high and low immigrant concentration and growth, violence rates (for all race/ethnic groups and offenses) have declined in nearly identical ways.

Conclusions

In light of concerns surrounding the link between immigration and crime, our goal here has been to investigate trends in rates of violent crime by race/ethnicity within and between California counties with differing degrees of immigration. Our findings broadly revealed, first, that after an initial decade of stability (1980s), violence rates in California counties generally fell during a period of steady and rapid immigrant growth (post-1990s). Second, these two temporal patterns were observed for all offenses, race/ethnic groups (including Hispanics, of which the immigrant population in California is predominately composed), and most importantly, in counties with both large and small shares of immigrants. Thus, the relative size and growth in the immigrant population did not seem to shape violence trends for any of the groups or offenses examined. Notably, this mirrors the findings from the recent meta-analysis by Ousey and Kubrin (2017) suggesting that levels of immigration have on balance been a neutral (and not criminogenic) force in driving contemporary patterns

of crime. Third, although, it is unclear precisely how much immigration impacted the downward trends in violence seen during the 1990s and 2000s, our analysis provides no evidence that crime rates are systemically higher in places of concentrated immigration or that violence has increased in places with more immigrants. Rather, serious violence rates declined in both sets of counties after 1990, and places with large or growing concentrations of immigrants did not fare any worse (or better) than places with smaller or more stable shares of the foreign-born. Thus, while immigration may have contributed to this crime decline (see Sampson, 2008), the parity in trends across low and high immigrant contexts also suggests that the crime decline of the 1990s and early 2000s may have been driven to a greater degree by other social and economic shifts that affected places with both large and small levels of immigration.

Notably, we acknowledge several caveats of the current study that should be addressed in future research. Like most official crime data sources, coding of race/ethnicity (especially for Hispanics) may include inconsistencies across agencies or over time in how arrestees are categorized. It is possible that use of the Hispanic code may have grown over time as agencies became more accustomed to it and to the growing Hispanic populations within California from 1980 to 2012. However, if anything, this suggests a conservative bias in our findings, given that the CAL data showed steady declines in Hispanic arrests over time (despite any artificial inflation that could have occurred from increased use of Hispanic codes). Moreover, it is unlikely that changes in race/ethnicity coding across agencies or over time biased our findings comparing immigrant contexts given that (1) arrest rates were generally stable and then declined *for all race/ethnic groups* and (2) this pattern was *nearly identical across both high immigration and low immigration counties*. However, future studies that replicate these analyses using other sources of crime data (victimization, self-report) would be useful for extending knowledge on long-term trends in immigration and crime.

Although California is advantageous for examining Hispanic (especially Mexican-American) trends in violence and for examining areas of high immigrant concentration, research should extend these analyses to less traditional immigrant destination states and to other offenses. Likewise, analyses of crime that disaggregate "Hispanic" ethnicity by national origin and that examine the growing shares of Asian immigrant populations are needed. Last, future studies should consider alternative ways for distinguishing "high" versus "low" immigrant areas to more fully explore how year-to-year immigrant growth shapes crime within and across locales. As noted in the methods section, we examined six alternative methods for classifying "high" and "low" immigrant contexts in preliminary analyses, and included a supplemental analysis comparing high versus low immigrant *growth* over time. The results

were consistent across all of these specifications, indicating that areas with larger immigrant populations and greater immigrant growth had similar violence trends as counties with fewer immigrants and slower immigrant growth. However, further analyses that provide more rigorous year-by-year time series analyses will be important for identifying how changing immigrant contexts have (or have not) shaped contemporary trends in violent crime. Until then, our findings suggest that, in contrast to fears of immigrant-fueled crime waves, high immigrant concentrations have not worsened or exacerbated the problem of violent crime. Rather, areas of both high and low immigration appear to have been subject to the same sets of social forces that have driven down serious violence throughout the late 20th and early 21st centuries.

References

Alba, R., & Nee, V. (1997). Rethinking assimilation theory for a new era of immigration. *International migration review*, *31,* 826-874.

Barranco, R., Harris, C.T., & Feldmeyer, B. (2017). Revisiting violence in new destinations: Exploring the drop in Latino homicide victimization in emerging immigrant communities, 2000 to 2010. *Sociological Spectrum*, 37, 1-19.

Britt, C. L. (2001). Testing theory and the analysis of time series data. *Journal of Quantitative Criminology, 17*, 343-357.

Bui, H. (2009). Parent-child conflicts, school troubles, and differences in delinquency across immigration generations. *Crime & Delinquency, 55*, 412-441.

California Department of Justice. 2006. *Crime in California*. Division of California Justice Information Services, Bureau of Criminal Information and Analysis. Sacramento, CA.

Feldmeyer, B. (2009). Immigration and violence: The offsetting effects of immigration on Latino violence. *Social Science Research, 38*, 717-731.

Feldmeyer, B., Harris, C. T., & Scroggins, J. (2015). Enclaves of opportunity or "ghettos of last resort?" assessing the effects of immigrant segregation on violent crime rates. *Social Science Research, 52*, 1-17.

Feldmeyer, B., & Steffensmeier, D. (2009). Immigration effects on homicide offending for total and race/ethnicity-disaggregated populations (White, Black, and Latino). *Homicide Studies*, *13*, 211-226.

Ferraro, V. (2016). Immigration and crime in the new destinations, 2000–2007: A test of the disorganizing effect of migration. *Journal of Quantitative Criminology, 32*, 23-45.

Greenman, E., & Xie, Y. (2008). Is assimilation theory dead? The effect of assimilation on adolescent well-being. *Social Science Research, 37*, 109-137.

Hamilton, J. (1994). *Time Series Analysis*. Princeton, NJ: Princeton University Press.

Harris, C. T., & Feldmeyer, B. (2015). A shot of morality? Hispanic immigration, religious contextual characteristics, and violence. *Sociological Spectrum, 35*, 229-253.

LaFree, G., Baumer, E. P., & O'Brien, R. (2008). Still separate and unequal: A city-level analysis of the black-white gap in homicide arrests since 1960. *American Sociological Review, 75*, 75-100.

Lee, M. T., Martinez Jr., R., & Rosenfeld, R. (2001). Does immigration increase homicide? Negative evidence from three border cities. *The Sociological Quarterly, 42*, 559-580.

Martinez Jr., R. (2002). *Latino homicide: Immigration, violence, and community*. New York: Routledge.

Martinez Jr., R., Stowell, J. I., & Lee, M. T. (2010). Immigration and crime in an era of transformation: A longitudinal analysis of homicides in San Diego neighborhoods, 1980-2000. *Criminology, 48*, 797-829.

O'Brien, R. (1999). Measuring the Convergence/Divergence of 'serious crime' arrest rates for males and females: 1960-1995. *Journal of Quantitative Criminology, 15*, 97-114.

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

Ousey, G. C., & Kubrin, C. E. (2017). Immigration and crime: Assessing a contentious issue. *Annual Review of Criminology, 1*, 1-22.

Pew Research Center. (2014). Characteristics of the Population in California, by Race, Ethnicity and Nativity: 2014.

Portes, A., & Rumbaut, R. (2006). Immigrant America. Berkeley.

Rappeport, A. (2015). Looking back at Donald Trump's 2015. *The New York Times*. Retrieved from http://www.nytimes.com/2015/12/31/us/politics/donald-trump-moments.html

Rumbaut, R. G., & Ewing, W. (2007). The myth of immigrant criminality. *Immigration Policy Center. Spring*.

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

Shihadeh, E. S., & Barranco, R. (2010). Latino employment and black violence: The unintended consequence of U.S. immigration policy. *Social Forces, 88*, 1393-1420.

Steffensmeier, D., Feldmeyer, B., Harris, C. T., & Ulmer, J. T. (2011). Reassessing trends in black violent crime, 1980-2008: Sorting out the "Hispanic effect" in uniform crime reports arrests, national crime victimization survey offender estimates, and U.S. prisoner counts. *Criminology, 49*, 197-251.

Steffensmeier, D., Ulmer, J. T., Feldmeyer, B., & Harris, C. (2010). Scope and conceptual issues in testing the race-crime invariance thesis: Black, white, and Hispanic comparisons. *Criminology, 48*, 1133-1170.

U.S. Census Bureau. (2017). *Annual Population Estimates*. Washington, DC: United States Census Bureau.

United States Department of Justice. (1986). *Crime in the United States, 1986*. Washington, DC: Government Printing Office.

United States Department of Justice. (2015). *Crime in the United States, 2015*. Washington, DC: Retrieved June 1, 2017 from https://ucr.fbi.gov/crime-in-the-u.s/2015.

Vega, W. A., Alderete, E., Kolody, B., & Aguilar-Gaxiola, S. (1998). Illicit drug use among Mexicans and Mexican Americans in California: The effects of gender and acculturation. *Addiction, 93*, 1839-1850.

Vega, W. A., & Sribney, W. M. (2011). Understanding the Hispanic health paradox through a multi-generation lens: A focus on behavior disorders. In G. Carlo, L. J. Crockett & M. A. Carranza (Eds.), *Health disparities in youth and families* (pp. 151-168) Springer New York. doi:10.1007/978-1-4419-7092-3_7

Vega, W. A., Zimmerman, R. S., Warheit, G. J., Apospori, E., & Gil, A. G. (1993). Risk factors for early adolescent drug use in four ethnic and racial groups. *American Journal of Public Health, 83*(2), 185-189.

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