Minority Police Representation and Crime across Different Racial/Ethnic Neighborhoods

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Abstract: To date, there has been scant research considering how racial/ethnic representation in local police agencies contributes to crime across different types of neighborhoods. Drawing from research on racial residential segregation, political representation, and neighborhood crime, I use data from the Law Enforcement Management and Administrative Statistics (LEMAS) and the National Neighborhood Crime Study (NNCS) to argue that differences in violent crime rates across neighborhoods are less pronounced in cities with greater levels of minority police representation. Drawing on arguments that connect political and social representation to local levels of violence, I propose that higher levels of minority police representation reduce the gaps in violent crime between minority and White neighborhoods is not due to higher levels of arrest or crime in White neighborhoods or to variations in policing practices. Rather, I suggest that it is due to higher levels of social cohesion and trust in predominately African-American and Latino neighborhoods located in cities with larger minority police representation.

Introduction

Late in the summer of 2014, television screens across the United States were filled with startling images coming out of Ferguson, MO. Following the tragic police shooting of 18-year old Michael Brown, residents of the predominately African-American suburb of St. Louis took to the streets in protest of what was later deemed to be the systemic mistreatment of their community at the hands of the local police department (U.S. Department of Justice (DOJ) 2015). News coverage of the Ferguson Police Department response to early reports of vandalism and looting revealed a stark contrast between the race of the protestors and that of the officers controlling the area. Indeed, while the town of Ferguson was over 60 percent African-American, the police force counted only three minorities out of 54 total officers (Leber 2014). These numbers are not unusual, as police department across the country face struggles recruiting and retaining minority police officers (Eitle, Stolzenberg, and D'Alessio 2005; Leber 2014).

Despite the potential connection between police racial composition and rates of violent and property crime across U.S. neighborhoods, it has rarely been the subject of any criminological research. Existing research has explored the relationship at the city-level or tested the effects of police racial composition on arrest rates disaggregated by offender race and ethnicity. To date, research has yet to consider how racial/ethnic representation in local police agencies contributes to violent crime across different types of neighborhoods. While extant research offers insight into police culture across distinct geographic and political entities, it overlooks important local structural features that are important to our understanding of race and violent crime . For example, we are unclear as whether or how minority representation on the police force represents minority incorporation and symbolic representation that may counteract perceptions of over- and underpolicing in different local areas ((Weitzer 2011). This paper adds to the current literature by considering how minority representation on local police forces contributes to differences in rates of violent across racially and ethnically distinct neighborhoods.

There are several reasons why neighborhoods are an important unit of analysis when examine the relationship between police demographics and violent crime. Given a legacy of racial residential segregation in the United States, individuals are likely to live in neighborhoods dominated by people with similar racial and economic backgrounds (Krivo, Peterson, and Kuhl 2009; Massey and Denton 1993; Peterson and Krivo 2010). Moreover, police practices vary from

neighborhood to neighborhood in ways that are shaped by social structural factors, even within the same department (Weitzer 2011). Consequently, when police departments do not reflect the demographics of local populations, this influences both the practices of the police department and the accompanying attitudes of local residents regarding the legitimacy of the police and the law itself (Carr, Napolitano, and Keating 2007; Kirk and Papachristos 2011; Tyler and Fagan 2011; Weitzer 2011).

Drawing on theories of racial/ethnic neighborhood stratification and modes of social and political incorporation, this paper makes several contributions to the current literature on formal social control and neighborhood violence. I consider how police racial composition influences levels of neighborhood crime, an important but untested unit of analysis in the policing literature. I then use cross-level interactions to examine whether minority representation on the police force can reduce the gap in violent crime rates between predominately minority (African-American, Latino, and Integrated) and White neighborhoods. Using data from the National Neighborhood Crime Study (NNCS) and the Law Enforcement Management and Administrative Statistics (LEMAS) 2000 survey, this project seeks to answer the following two questions. First, how is city the racial composition of the police force relative to the city associated with neighborhood rates of violent and property crime? Second, how does the racial composition of the police force relative to the city condition the disparities in criminal activity across different racially and ethnically distinct neighborhoods?

Conceptual Framework

Racial Composition of Police Force and Neighborhood Violence

There has been limited criminological research on the association between minority representation on the police force and rates of violent and property crime. Comparisons of arrests rates across different cities suggests that the racial composition of the police force may not be associated with overall levels of arrests, but does influence the arrest rates of certain racial and ethnic groups. Slovak (1986) found that, after controlling for other police organizational factors and appropriate city-level covariates, the racial composition of the police force was not associated with the arrest rates of 42 large U.S. cities. More recently, research examining the effects of police racial and ethnic composition on the arrest rates of Whites, African-Americans,

and Latinos has yielded mixed results. For example, police departments with relatively large African-American compositions have higher arrest rates and are more likely to arrest Whites relative to African-Americans (Eitle, Stolzenberg, and D'Alessio 2005). Despite these findings, we know little about how the racial composition of city police departments influences differences in the rates of violent crime across different types of neighborhoods. Drawing from recent research on racial residential segregation and crime and the importance of city-level political and social context, I discuss why minority police representation may be associated with lower rates of crime in some types of racially and ethnically distinct neighborhood and not in others. Moreover, I suggest that, because of factors associated with the social and political incorporation of minorities, particularly into the police department, may moderate the vast disparities in levels of crime across different types of neighborhoods.

The Racial Structure,of Neighborhood Crime

Recent, scholars have illustrated how racial residential segregation generates an uneven distribution of important resources needed to prevent criminal violence across different types of neighborhoods (Krivo, Peterson, and Kuhl 2009; Massey and Denton 1993; Peterson and Krivo 2010). Briefly, racial residential segregation creates a tiered system of neighborhood inequality in which important social and economic resources are distribution according to racial and ethnic composition. As a result, predominately White neighborhoods and predominately African-American neighborhoods fall at polar extremes for a number of social problems, including levels of disadvantage and crime, with majority Latino and Integrated neighborhoods falling somewhere in between (Krivo et al. 2009; Peterson and Krivo 2010). While scholars have typically attributed differences in rates of violent crime to differences in local social structure, particularly rates of poverty and concentrated disadvantage, more recent work has demonstrated the influence of extralocal factors, including political and economic opportunities.

Cities whose local political and economic actors share similar backgrounds as their residents are better able to incorporate residents of minority neighborhoods. For example, cities with histories of immigration and immigrant populations provide language and employment services to newly arriving immigrants (Lewis and Ramakrishnan 2007; Portes and Rumbaut 2006). These services potentially stimulate an immigrant revitalization process, wherein large concentrations of foreign-born and co-ethnic minority residents contribute to relatively lower

violent crime rates in disadvantage local areas (Lyons, Vélez, and Santoro 2013; Ramey 2013). Furthermore, representative political structures are observed to be more responsive to resident needs in minority neighborhoods, including concerns about violence and crime ((Lewis and Ramakrishnan 2007; Portes and Rumbaut 2006). Indeed, in cities with greater African-American political representation and political participation, the often observed positive association between neighborhood level racial concentration and violence is reduced to near zero (Vélez, Lyons, and Santoro 2015).

Modes of Incorporation

Historically, the relationship between local law enforcement and residents of minority neighborhoods has been somewhat of a paradox. While residents in predominately White neighborhoods are likely to have ambivalent or positive relationships with the police, those in predominately African-American and Latino neighborhoods report that law enforcement is simultaneously harsh and overbearing, yet unresponsive and dismissive of the needs of the community (Weitzer 2011). For example, residents of African-American and Latino neighborhoods routinely report feeling targeted by law enforcement, including disproportionate use of policies such as "stop and frisk" that rely on officer discretion (Anderson 1999; Rios 2011). Additionally, minority neighborhoods have higher levels of police abuse of authority and use of deadly force (Weitzer 2011). On the other hand, when residents of minority neighborhoods are in need of police assistance, they report extremely long response times, poor and disrespectful service, and a lack of effort in helping victims or solving local crime problems (Carr, Napolitano, and Keating 2007; Kirk and Papachristos 2011; Weitzer 2011). The result of this paradox is a loss of legitimacy on behalf of local law enforcement and problematic levels of social trust and legal cynicism in local minority communities.

A number of studies suggest that levels of social trust are relatively low among African-American or Latino residents who do not feel they have a voice in local government (Bobo and Gillam 1990; Portes and Rumbaut 2006). For example, civic engagement and participation in community organizations in minority neighborhoods is higher in cities with greater levels of minority incorporation (Bobo and Gillam 1990). Not only do higher levels of trust in a neighborhood foster ties to the local city government, including police departments, but it improves local levels of collective efficacy and help to protect disadvantaged minority

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neighborhoods from higher levels of violence (Sampson 2012; Sampson, Raudenbush, and Earls 1997; Vélez, Lyons, and Santoro 2015).

In addition to influences local levels of participation and trust, disproportionate minority representation on local police forces increases local levels of legal cynicism. Residents of many African-American and Latino neighborhoods believe that the local police are either unwilling or incapable of replying when they are needed, but seem to be more than prepared to stop and question them as potential "suspects" or for other purposes (Weitzer 2011). This engenders collective legal cynicism in a neighborhood, in which local residents no longer feel they can trust or rely on the police. Higher levels of legal cynicism are associated with higher neighborhood crime rates. When the law and law enforcement lose legitimacy in local areas with high legal cynicism, residents' attitudes may be more favorable to crime or other deviant activities (Sampson 2012). For example, if police departments are not seen as responsive to local crime events, residents are more likely to take matters into their own hands as a means of protection or dispute resolution (Anderson 1999; Kirk and Papachristos 2011).

There are two important reasons why greater minority representation would improve the legitimacy of local law enforcement in minority communities and thereby contribute to different levels of crime in different types of neighborhoods. First, greater minority representation increases the diversity of experience within the department (Eitle, Stolzenberg, and D'Alessio 2005; Paoline 2003). This diversity of experience can help to eliminate stereotypes of minority communities and their residents as criminal and change preexisting practices (Eitle, Stolzenberg, and D'Alessio 2005). As a result, police departments with more African-American police officers may be less likely to aggressively police African-American neighborhoods or police other neighborhoods with equal vigor (Eitle, Stolzenberg, and D'Alessio 2005). In addition to influencing police attitudes and procedures, the racial composition of the police force can also influence levels of violence through its effects on the attitudes of local neighborhood residents.

Recently, scholars have pointed to the racial and ethnic composition of local social control institutions as important signs that minorities are more or less incorporated into local political and social structures., For example, if police departments are seen as representative of the local community, they are more likely to be viewed as legitimate sources of authority by residents of predominately Black and Latino neighborhoods (Lyons, Vélez, and Santoro 2013;

Theobald and Haider-Markel 2009). On the other hand, when the police department does not reflect the racial demographics of the city, their decisions are viewed with suspicion, disproportionate policing and arrests are viewed as symbols of systemic racism, and the law itself loses legitimacy as local residents become cynical of local government (Tyler and Fagan 2011). According to this mode of incorporation thesis, greater minority representation on the local police force should reduce the gap in local rates of violence across racial and ethnic neighborhoods by improving the legitimacy of the law and reducing legal cynicism.

Hypothesis

> H1: Minority police representation will be negatively associated with levels of neighborhood crime.

> H2: The negative association between minority police representation and levels of neighborhood crime will be stronger in African-American and Latino neighborhoods than in White neighborhoods.

Data and Methods

Sample

Data for this project comes from the National Neighborhood Crime Study (NNCS). The NNCS compiles Uniform Crime Report (UCR) data for violent and property crime for 9,563 census tracts across a nationally-representative sample of 91 cities with populations over 100,000 in 1999. Because two cities did not report tract-level data for the dependent variables, the current analysis is restricted to 8,994 tracts in 89 cities. Data on the racial composition of a city's police department and policing strategies was collected from the Law Enforcement Management and Administrative Statistics (LEMAS) 2000 survey.

Dependent variable

Following prior research using the NNCS (Peterson and Krivo 2009; Ramey 2013), the dependent variable, *violent crime*, is measured as a three-year (1999-2001) average count of tract-level homicides and robberies. Although the Uniform Crime Reports (UCR) also includes forcible rapes and aggravated assaults, I exclude these crimes from the analyses presented below because of data availability and reliability concerns. First, eleven cities do not provide tract-level

data for these crimes, significantly reducing sample size. Moreover, prior research suggests that homicide and robberies are more reliable than assault and forcible rape when it comes to identifying the location where the crime occurred (Peterson and Krivo 2009; Rand 2009)[2]. The strategy of using multiyear counts is a common practice in criminological research to minimize the impact of annual fluctuations in rare events at small levels of aggregation (Krivo, Peterson, and Kuhl 2009).

City-level independent variables

The central independent variable in this analysis is *minority police representation*. This measure is designed to capture the relative incorporation of minorities, including African-Americans, Latinos, and Asians, into the local police force. I constructed this variable using a ratio of the percentage of sworn police officers that are African-American, Latino, or Asian versus the percentage of the total city population that was African-American, Latino, or Asian. In the formula presented, m_j and p_j represent the number of minority polices and total police officers respectively groups residing in city j while M and P are the total number of minorities and residents in the total city population. A value of one on this scale constitutions perfect minority representative (e.g. 15 percent of the police force and 15 percent of the city population is African-American, Latino, or Asian) and values lower than one indicate an underrepresentation and values above one indicate overrepresentation. Given the relatively small range of the variable, I use a standardized version in all regression analyses.

$$MPR_{ab} = \left[.5 * \sum_{j=1}^{n} | \frac{m_j}{M} / \frac{p_j}{P} | \right] * 100$$

Tract-level independent variables

The key tract-level measure is a series of dummy variables indicating *neighborhood racial-ethnic composition*. Neighborhoods are defined as White (n=4,303), African-American (n=1,841), or Latino (n=1,342) if the respective group constitutes at least a 50 percent share of the local population. Tracts where no specific group makes up at least half the population are considered to be Integrated (n=1,142)[1]. The NCDB (GeoLytics 2003) provides tract-level census data from 1990, normalized to 2000 tract boundaries. This allows me to measure recent growth and decline in immigrant concentration at the tract-level over time while avoiding issues with

official boundary changes over time. While this is not a longitudinal study of violent crime rates, I use the 1990 measures in the NCDB to define new and established immigrant destinations and create measures of recent immigrant growth, an important feature of new destination immigrant communities, on neighborhood violence.

Tract-level control variables

In addition to neighborhood type, measures of *neighborhood disadvantage, residential instability* and *neighborhood immigrant concentration* are included in the models as control variables. Neighborhood disadvantage is an index composed of the average of summed z-scores for six variables that measure the percent of the tract population that is: employed in secondary sector, low-wage jobs; employed in professional or management careers (reverse-coded); jobless and in the working age population (16-64); living in female-headed households; over 25 years with at least a high school diploma (reverse-coded); and living below the poverty line ($\alpha = .92$). I measure residential instability using an index of the average of summed z-scores for the percentage of housing units that are renter occupied and the percentage of the tract population that lived in a different residence in 1995 ($\alpha = .63$). Neighborhood immigrant concentration is measured using the percentage of the tract population that was foreign-born. Additionally, I control for the percent of the tract that is male between 15 and 34 years old (*percent young males*) to control for the population deemed to be the most crime prone in the neighborhood. Finally, yo account for the potential clustering of violent crime in U.S. cities, I include a spatial lag of the logged violent crime rates of the surrounding tracts.

City-level control variables

I control for policing practices thought to be associated with trust in local law enforcement and levels of crime using a variable measuring *police-public contact*. I created this variable using information from LEMAS on whether or not the department: 1) met regularly with advocacy groups, school groups, business groups, senior citizen groups, domestic violence groups, tenants' associations, local public agencies, youth service organizations, neighborhood associations, or religious groups; or 2) surveyed city residents regarding public satisfaction, public perceptions of crime, personal experiences of crime, and trends in police reporting. Responses for each question were coded "1" for yes and "0" for no and then summed to create the variable used in the current analysis. Higher scores on the variable indicate a greater

willingness on behalf of local law enforcement to engage local residents about crime and disorder.

Additional control variables include the percent of the city that is non-Latino black (*city-level percent black*), Latino (*city-level percent Latino*), and the percentage of males between 15 and 34 years old (*city-level percent young males*). Since larger cities tend to have higher rates of violent crime, I also include a measure of *city-level population* (logged to account for heavy positive skew). Finally, measures for census region (*South and West)* account for the links between both levels of violence and population.

To account for significant variation in immigrant concentration within each destination, I include *city-level immigrant concentration*, measured as the percentage of the city that is foreign-born. Moreover, I include several city-level controls found to affect neighborhood crime in the past. C*ity-level disadvantage* is measured using a scale analogous to neighborhood disadvantage ($\alpha = .92$). To capture instability at the city-level, I include *percent movers*, i.e., the percentage of the city population that lived in a different residence in 1995. A measure of *manufacturing employment*, defined as the percent of the employed civilian population age 16 and over employed in manufacturing industries, captures labor market activity of the city. I control for racial residential segregation using the Dissimilarity Index (*D*), a common measure for segregation. Both *Black/White segregation* and *Latino/White segregation* are controlled. Segregation has been shown to influence neighborhood violence for neighborhoods of all racial and ethnic composition (Krivo, Peterson, and Kuhl 2009; Peterson and Krivo 2010) and may influence the behavior and attitudes of local police departments (Eitle, Stolzenberg, and D'Alessio 2005; Paoline 2003).

Analytic strategy

I estimate multilevel models using HLM 7 with tracts at level 1 and cities at level 2. Because I am analyzing rare events within small level 1 units, I estimate a nonlinear Poisson model with variable (tract population) exposure with counts of either violent or property crime as my dependent variable. A nonlinear Poisson model analyzes count response variables. Specifying these counts with variable exposure sets the coefficient for tract population to "1," adjusting the count dependent variable by the population of the tract, making the analysis one of violent crime rates (crimes per population) across neighborhoods (Osgood 2000). A common assumption of the Poisson model is equal means and variances of the dependent variable. Since

the variance of my dependent variable is considerably larger than the mean, I control for overdispersion at level 1. Poisson models with overdispersion in HLM are analogous to a negative binomial model. Continuous variables are grand-mean centered in the analysis, indicating that coefficients can be interpreted as the effects of changes from the overall mean in the sample. Furthermore, coefficients for all city-level variables can be interpreted as contextual effects on neighborhood-level violence, net of any neighborhood-level effects.

Results

[INSERT TABLE 1]

Table 1 descriptive statistics for all variables used in the analysis. Notably, violent and property crime rates were much higher for predominately minority neighborhoods than they are for White neighborhoods. Turning to our central city-level independent variables, there seems to be noticeable underrepresentation of minorities in U.S. municipal police forces. For all neighborhoods, a value of .65 indicates that American law enforcement agencies are less than 2/3 the levels of parity that would suggest equal representation. Furthermore, there seems to be little difference in exposure to racially unrepresentative police forces across neighborhood types. The average White and Integrated neighborhood in the United States is located in cities with lower than average minority police representation and the average African-American and Latino neighborhood is in a city with slightly above average minority police representation.

[INSERT TABLE 2]

Table 2 presents coefficients and standard errors for multilevel Poisson models (with variable exposure) of violent crime in U.S. neighborhoods. Model 1 demonstrates that there are significant and sizable differences in violent crime rates across different types of neighborhoods. Controlling for other relevant neighborhood and city-level factors, predominately African-American neighborhoods have violent crime rates that are, on average, 20 percent $[100*(e^{.184*1})-1]$ higher than White neighborhoods. Similarly, violent crime rates in Integrated neighborhoods are 16.7 percent $[100*(e^{.154*1})-1]$ higher than those in White neighborhoods. On other hand, the average violent crime rate of Latino neighborhoods is just 4 percent $[100*(e^{.041*1})-1]$ than White neighborhoods and this difference fails to reach statistical significance (p=0.255).

Turning to the central city-level variable, neighborhoods in cities with police minority representation that is one standard deviation above the national mean actually have slightly higher violent crime rates than neighborhoods in cities with relatively low minority police representation. However, the coefficient representing the association between police force minority representation and violent crime is relative small and non-significant. This finding suggests that, for all U.S. neighborhoods, the composition of the police force is not associated with levels of violence.

Several control variables significantly predict levels of neighborhood violence. At the tract-level, neighborhoods with higher rates of violence in the surrounding neighborhoods have significantly higher violent crime rates. Moreover, neighborhoods with greater levels of disadvantage and residential instability have higher crime rates. On the other hand, neighborhoods with greater levels of immigrant concentration have significantly lower crime rates than similar neighborhoods with lower immigrant concentration. At the city-level, Black/White segregation and population size is positively associated with violent crime rates while higher levels of manufacturing employment are related to significantly lower levels of local violence.

Notably, city police minority representation has little to no relationship with local levels of violence in all US neighborhoods. However, prior research suggests that this association is most likely not consistent across different neighborhood types. For example, residents of White neighborhoods are likely to be less effected by the racial composition of the police force than are residents of Black or Latino neighborhoods (Weitzer 2011). To test for this possibility, Model 2 for violent crime considers how minority police representation influences local rates of violent crime across different racial/ethnic neighborhoods. Similar to Model 1, the "main effects" of the neighborhood type dummies for Black and Integrated neighborhoods are significant and positive, suggesting that, in cities with mean levels of minority police representation (.65), these places have significantly higher crime rates than do majority White neighborhoods. Furthermore, the non-significant "main effect" of minority police representation (i.e. when the three neighborhood dummy variables are all equal to zero) suggests that minority police representation is not associated with crime in White neighborhoods. However, the significant and negative interaction term for two of the three dummy interactions suggests that higher levels of minority

police representation reduce the gap in expected violent crime between African-American and Latino neighborhoods, respectively, relative to majority White neighborhoods.

The results of Model 2 demonstrate the ways in which police minority representation influences violent crime across different types of neighborhoods.   In White neighborhoods, a one standard deviation difference in police representation is associated with 2.5 percent $[100*(e^{.(.025+(0*1)}-1]$ higher violent crime rates. Similarly, a one standard deviation difference in minority police concentration is associated with 1 percent $[100*(e^{.(.025+(-.016*1)}-1]$ percent higher violent crime rates in Integrated neighborhoods. On the other hand, in minority neighborhoods where one group (e.g. Blacks or Latinos) comprises the majority, there is a negative relationship between police minority representation and local rates of violent crime. In predominately African-American neighborhoods, a similar one standard deviation difference is associated with 3 percent $[100*(e^{.(.025+(-.056*1)}-1]$ percent lower violent crime rates. A similar difference in predominately Latino neighborhoods is associated with 4 percent $[100*(e^{.(.025+(-.068*1)}-1]$ percent lower violent crime rates. Furthermore, in cities with greater levels of minority police representation, the gap in violent crime across White and minority neighborhoods is significantly reduced. For example, in these cities, violent crime rates in African-American and Integrated neighborhoods are just 14 percent $[100*(e^{.(.188+(-.056*1)}-1]$ and 15 percent $[100*(e^{.(.025+(-.016*1)}-1]$ higher than White neighborhoods, respectively. Indeed, in these cities, Latino neighborhoods have slightly lower crime rates (1.2 percent $[100*(e^{.(.188+(-.056*1)}-1]$) than similarly situated White neighborhoods. To help demonstrate this finding, I turn to Figure 1 displaying expected violent crime rates for different racial/ethnic neighborhoods in the United States.

[INSERT FIGURE 1]

Figure 1 displays expected violent crime rates in White, African-American, Latino, and Integrated neighborhoods at different levels of minority police representation. The x-axis in Figure 1 displays values of minority police representation at one standard deviation above and below the mean. In cities where minority police representation is one standard deviation below the mean (.45), the average expected violent crime rates in African-American neighborhoods (31 per 10,000 population), Latino neighborhoods (27 per 10,000 population), and Integrated neighborhoods (28.5 per 10,000 population) are noticeable higher than those in White neighborhoods (5.95 per 10,000 population). These disparities are not as pronounced in cities

with greater levels of minority police representation. For example, at one standard deviation above mean minority police representation, the violent crime rates of Latino and White neighborhoods are essentially the same (24 per 10,000 population) and the differences in expected crime rates between crime rates in African-American and Integrated neighborhoods and those in White neighborhoods is reduced as well.

Conclusion

This paper takes advantage of a large dataset of U.S. cities and neighborhoods to examine the association between the racial and ethnic composition of police departments and rates of neighborhood violent and property crime. Drawing from research on racial residential segregation, political representation, and neighborhood crime, I demonstrate the ways in which the racial and ethnic composition of a city's police force is associated with violent and property crime rates across different types of neighborhoods. Results suggest that, while police force diversity may not directly reduce violent crime in all neighborhoods, it is associated with lower arrest rates for violent and property crime in predominately minority neighborhoods. Findings have larger implications for both scholarship on neighborhoods and violent crime as well as important policy implications at an important time in history.

Results did not support the first hypothesis, that greater minority police representation will be associated with lower rates of neighborhood crime. Indeed, while never reaching statistical significance, rates of neighborhood violent and property crime were slightly higher in cities with a more diverse police force. However, results from cross-level interaction models provides support for the second hypothesis, that minority police representation is likely to be associated with lower rates of violent crime in minority, but not White, neighborhoods. Indeed, African-American and Latino neighborhoods in cities with relatively high minority police representation have 20 percent and 35 percent lower violent crime rates than similar neighborhoods in cities with predominately White police forces. Drawing from arguments that connect political and social representation to local levels of violence, including legal cynicism, I suggest that these findings are due to lower levels of violent and property crime in predominately

African-American and Latino neighborhoods located in cities with larger minority police representation.

Finally, results support my third hypothesis, that greater levels of minority police representation reduce the gaps in violent and property crime between minority and White neighborhoods. Indeed, the significant difference in violent crime rates between predominately Latino and White neighborhoods is completely erased in cities whose police force are one standard deviation above mean police force representation. Given the lower crime rates in minority neighborhoods and non-significant associated between minority police force representation and crime in White neighborhoods, I argue that this reduction is more a function of lower arrest rates in minority neighborhoods and not the heightened policing of White neighborhoods.

Notably, while the association between minority police representation and rates of violence was significant and varied across different types of neighborhoods, there was no significant relationship in White neighborhoods. Additionally, there was no effect of policing strategies on violent crime. It appears that factors associated with symbolic representation may be more important in determining levels of violence than policing strategies, either in the form of increased policing in White neighborhoods or attempts at community involvement across place.

Findings from this paper provide both impetuses for future research on policing, neighborhoods, and violent crime, as well as hold important policy implications. Importantly, research on policing and rates of crime cannot ignore important neighborhood level factors, particularly differences in racial composition across local areas. Given extremely high and protracted levels of segregation in U.S. cities, White and non-White neighborhood occupy different social spaces that, in turn, have important implications for crime and policing (Peterson and Krivo 2010). Similarly, research comparing rates of violence across neighborhoods must continue to take into account important contextual factors at the city-level, particularly those associated with formal social control, such as policing (Kubrin and Weitzer 2003; Weitzer 2011). Future research should incorporate the role of other important social institutions (e.g. city council, local chambers of commerce; schools) into studies of violent crime across

neighborhoods. Doing so will allow to not only examine how other forms of minority political incorporation influence levels of violent and property crime in minority neighborhoods, but will help to isolate the independent and unique relationship with policing and neighborhoods.

While these findings reveal the important relationship between policing, race, and violent crime across different types of places, several shortcomings need to be addressed in future research. First, conclusions regarding causality cannot be made from cross-level analysis. Consequently, I cannot rule out potentially spurious factors that may drive both rates of violence and police minority representation. It is possible that legal cynicism not only influences local levels of violence, but may also influence the willingness or ability of minorities to join law enforcement in the first place. For example, residents of legally cynical, predominately minority neighborhoods may discourage young African-American or Latinos from joining the police for fear of "selling out" or abandoning the neighborhood (Weitzer 2000). Nevertheless, while I cannot claim that minority police representation *causes* lower violent crime rates, the policy implications and robustness of the findings merit discussion.

Additionally, because I chose to use categories of neighborhoods, rather than continuous measures of racial composition, the current analysis risks missing out on important details associated with smaller differences in racial and ethnic composition. For example, the relationship between policing strategies and representation, racial composition, and violence may look difference in neighborhoods with 15-20 percent African-American residents than it does in tose with 50 percent or 80 percent African-American residents. Despite this issue, past research has demonstrated that police minority incorporation does not moderate the linear relationship between continuous measures of racial composition and local rates of violence (Vélez, Lyons, and Santoro 2015; Lyons, Vélez, and Santoro 2012). Furthermore, the use of the 50 percent cut-off allows for the inclusion of Integrated neighborhoods, an important and understudied unit of analysis in criminological research.

Finally, while these findings have important policy implications, they are somewhat tempered by other important factors regarding police departments and minority groups. First, as mentioned earlier, African-American and Latino residents that are suspicious of police and police motives are less likely to join the police force (Weitzer 2000). Second, other, non-crime factors may prevent police departments from diversifying. For example, in 2009, lawyers argued

in front of the Supreme Court that required written and oral examinations served to prevent the hiring and promotion of minority officers and presented unfair and unreasonable obstacles to joining local police departments (Ricci v. DeStefano 2009). Consequently, despite the potential for police diversity to lower violent crime rate and improve community relations, there may still be intractable barriers that local areas must first overcome.

These caveats notwithstanding, this paper provides important information about the relationships between police and neighborhood demographic factors and local rates of violence. Findings from this study provide further reason for cities to continue attempts at diversity, including the possibility of changing entrance or hiring requirements. As American cities continue to grow and diversify, it is extremely important that its social control institutions do so as well.

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Table 1. Descriptive statistics for variables used in analysis [a]

	White Neighborhoods		African-American Neighborhoods		Latino Neighborhoods		Integrated Neighborhoods		All Neighborhoods	
Dependent variable										
Annual Violent Crime Rate per 1000 (1999-2001)	26.180	47.902	97.551	84.071	51.591	56.104	50.011	59.959	48.512	66.269
Annual Homicide Rate per 1000 (1999-2001)	0.521	1.337	4.080	4.846	1.874	2.832	1.313	2.061	1.595	3.106
Annual Robbery Rate per 1000 (1999-2001)	25.565	47.279	93.132	81.934	49.559	54.059	48.420	58.716	46.737	64.439
Tract-level independent variables										
Neighborhood Disadvantage	-0.628	0.520	0.816	0.686	0.764	0.506	0.111	0.573	-0.011	0.865
Percent employed in secondary/low-wage sector	13.293	6.340	25.450	8.883	24.363	6.976	20.303	7.419	18.496	9.019
Percent employed in professional/managerial sector	41.751	15.794	22.194	10.470	16.203	8.052	28.863	12.432	32.009	16.918
Percent jobless and in working age population	24.993	7.936	46.127	11.393	44.598	8.395	35.253	9.620	33.837	13.107
Percent living in female-headed households	9.702	5.217	33.221	11.486	18.471	7.025	16.571	7.252	16.989	11.841
Percent over 25 with HS diploma	87.174	9.930	67.094	11.841	48.158	13.565	72.215	12.311	75.031	18.001
Percent living under poverty line	10.361	9.005	30.310	14.795	27.006	11.161	20.012	10.715	18.427	14.005
Residential Instability	-0.077	0.914	-0.108	0.780	0.250	0.744	0.390	0.818	0.027	0.870
Percent renters	40.478	24.268	55.713	22.557	59.877	22.356	57.834	23.469	48.962	25.047
Percent moved in last 5 years	53.254	14.848	43.560	12.099	51.446	11.403	56.671	12.660	51.349	14.198
Percent Foreign-born	10.673	8.451	4.943	7.194	42.092	15.238	27.037	14.641	16.308	16.389
Percent Young Males	15.951	6.555	12.907	3.346	18.293	3.769	17.624	5.272	15.868	5.743
Spatially lagged violent crime rate	29.256	31.711	95.899	57.006	54.558	38.996	50.188	43.046	50.169	48.484
City-level independent variables										
Police force minority representation	63.635	23.332	66.622	15.941	67.238	17.511	62.701	18.168	64.693	20.509
Percent minority officers	22.342	13.052	38.530	17.328	38.638	16.063	29.317	13.268	29.191	16.366
Percent minority residents	35.561	16.858	56.426	17.483	56.216	13.711	46.299	15.251	44.568	18.954
Police-Public contact	9.637	3.820	9.322	3.459	10.411	4.416	9.895	3.968	9.719	3.876
Percent in police force (total population)	24.042	9.120	35.704	11.612	26.015	9.174	24.865	9.617	26.958	10.822
Percent Black	19.341	14.362	42.075	19.121	16.608	12.823	19.833	13.941	23.894	18.012
Percent Latino	16.221	14.085	14.351	13.608	39.607	14.314	26.465	14.492	20.674	16.572
Black/White Segregation	54.805	16.980	68.508	11.228	62.638	17.142	58.471	16.258	59.414	16.766
Latino/White Segregation	43.420	14.120	49.959	12.351	55.713	11.756	51.404	12.170	47.726	13.965
City Disadvantage	-0.048	0.679	0.709	0.692	0.495	0.575	0.215	0.672	0.231	0.737
Percent employed in secondary/low-wage sector	16.561	2.606	18.702	2.785	17.084	2.025	16.899	2.420	17.145	2.678
Percent employed in professional/managerial sector	35.499	6.451	31.784	7.317	32.979	5.120	34.946	6.284	34.248	6.632
Percent jobless and in working age population	30.572	5.311	36.272	5.260	36.660	4.974	33.539	5.695	33.103	5.952
Percent living in female-headed households	13.957	3.911	19.870	5.319	15.081	3.321	14.878	4.006	15.520	4.789
Percent over 25 without HS diploma	80.157	7.058	74.218	5.483	70.620	7.435	75.817	7.242	76.876	7.723
Percent living under poverty line	15.669	5.137	20.519	4.176	19.480	4.131	17.584	4.895	17.537	5.193
City Manufacturing	11.595	4.142	12.411	4.765	12.054	2.866	11.872	3.882	11.876	4.103
City Residential Instability	0.026	0.713	-0.107	0.642	0.328	0.494	0.284	0.605	0.077	0.673
Percent renters	46.997	9.583	51.740	7.306	54.249	8.655	51.991	9.174	49.765	9.399
Percent moved in last 5 years	53.122	5.404	48.596	5.070	52.112	4.272	53.016	4.726	51.982	5.400
Percent Foreign-born	14.232	9.854	12.752	10.348	29.775	13.284	21.858	11.262	17.249	12.257
Percent Young Males	16.496	2.186	15.829	1.651	16.699	1.419	16.742	1.886	16.415	1.965
Population	798,157	935,138	1,090,804	1,002,851	1,936,722	1,408,176	1,159,313	1,203,853	1,079,354	1,137,909
Suburban	7.63%		0.88%		7.06%		8.38%		6.19%	
South	32.42%		33.92%		27.29%		29.25%		31.55%	
West	30.83%		5.32%		55.84%		42.41%		30.61%	
n (Tracts)	4,519		1,937		1,345		1,193		8,994	
n (Cities)										

[a] All variables reference 2000 data unless otherwise noted

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Table 2. Multilevel Poisson Models (with variables exposure) of Neighborhood violent crime   (NNCS, 2006)

| | Violent Crime | | | | | |
| | Model 1 | | | Model 2 | | |
	β	*	S.E.	β	*	S.E.
Neighborhood Racial/Ethnic Type[a]						
African-American	0.184	***	0.050	0.188	***	0.051
Latino	0.041		0.045	0.050		0.042
Integrated	0.154	***	0.030	0.155	***	0.031
Police force minority representation	0.006		0.013	0.025		0.015
x African-American				-0.056	*	0.024
x Latino				-0.068	*	0.028
x Integrated				-0.016		0.025
Tract-level Control variables						
Neighborhood Disadvantage	0.215	***	0.024	0.218	***	0.025
Residential Instability	0.189	***	0.022	0.190	***	0.022
Immigrant Concentration	-0.065	***	0.016	-0.066	***	0.016
Percent Young Males	0.002		0.002	0.002		0.002
Spatially lagged violent crime rate	0.633	***	0.025	0.630	***	0.025
City-level Control variables						
Police-Public contact	0.018		0.019	0.022		0.019
Percent in police force (total population)	-0.001		0.002	0.000		0.002
Percent Black	0.003		0.002	0.003		0.002
Percent Latino	0.000		0.002	0.000		0.002
Black/White Segregation	0.004	*	0.002	0.004	*	0.002
Latino/White Segregation	-0.002		0.001	-0.002		0.002
City Disadvantage	-0.009		0.041	-0.015		0.042
City Manufacturing	-0.008	*	0.004	-0.008	*	0.004
City Residential Instability						
City Immigrant Concentration	0.006		0.034	0.012		0.034
Percent Young Males	-0.016		0.009	-0.019	*	0.009
Population (logged)	0.067	**	0.019	0.066	**	0.019
Suburban[b]	-0.064		0.070	-0.079		0.071
South[c]	-0.074		0.041	-0.068		0.042
West[c]	-0.028		0.048	-0.031		0.049
Intercept	-6.052	***		-6.050		
Level-1 variance	0.011	***		0.011		
Level-2 variance	6.857			6.834		

[a] reference is White neighborhoods

[b] reference is Central city
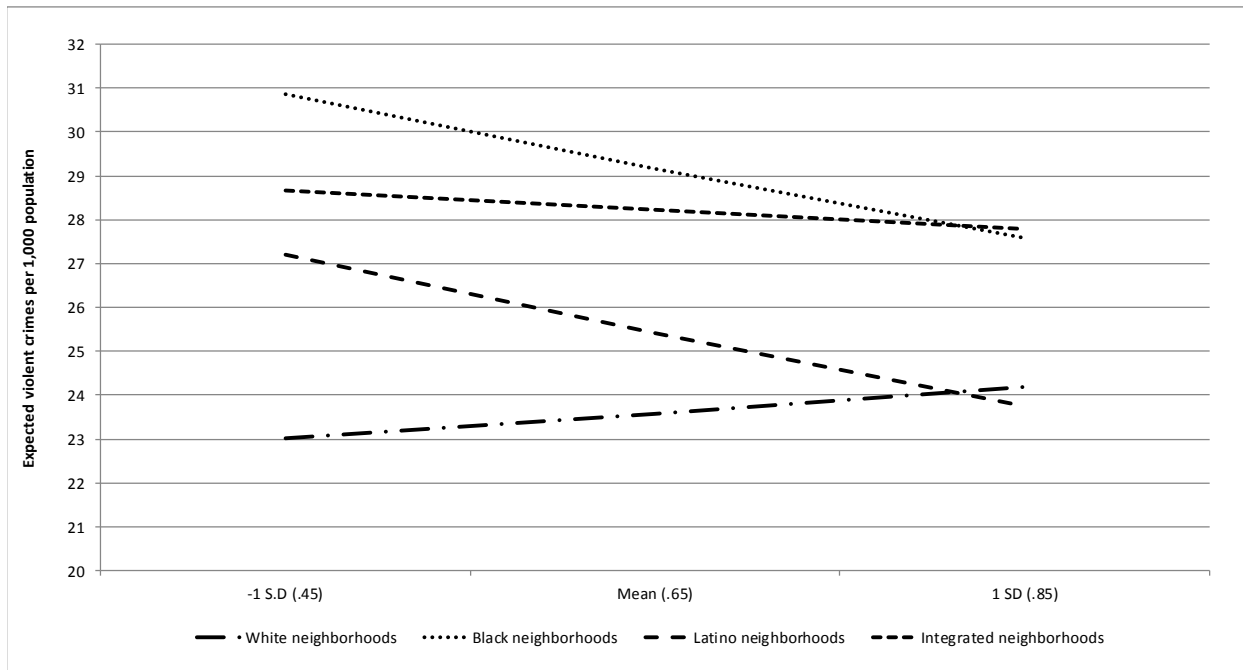
[c] reference is Midwest and Northeast

Figure 1. Expected violent crime rates for varying levels of Minority Representation in the Municipal Police Department for White, Black, Latino, and Integrated Neighborhoods