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Race, Neighborhood Context, and Drug Enforcement: A Mixed-Method Analysis of Racial Disparities in Drug Arrests

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A dissertation submitted to the Graduate School at the University of Missouri-St. Louis in partial fulfillment of the requirements for the degree

Doctor of Philosophy in Criminology and Criminal Justice

May 2016

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Contents

List of Figures and Tables	2
Abstract	3
Acknowledgements	4
Chapter 1: Introduction	6
The War on Drugs	7
Racial Disparities Fuel Inequality	11
Goals of the Dissertation	
Chapter 2: Theoretical Frameworks and Literature Review	18
Differential Drug Involvement Theory	19
Differential Scrutiny Theory	24
Racially-Biased Policing Theory	27
Studies on Racial Disparities in Drug Arrests	36
Chapter 3: Setting of the Study: St. Louis, Missouri	42
History of Race Relations and Racial Segregation	45
Drug Enforcement in St. Louis	49
Chapter 4: Quantitative Component	53
Data	53
Measures	54
Analytic Strategy	64
Descriptive Parameters	68
Bivariate Results	77
Multivariate Results	82
Discussion	98
Chapter 5: Qualitative Component	105
Data	109
Sample	111
Analytic Strategy	117
Pathways to Drug Arrests	120
Pathways to Drug Arrests by Neighborhood Type	126
Pathways to Drug Arrests by Arrestee Race	136
Discussion	153
Chapter 6: Conclusions	158
Summary of Findings	159
Research and Theoretical Implications	
Policy and Practice Implications	
References	173
Appendix A: Multivariate Tables with Coefficients	187

Figures and Tables

Chapter 1: Introduction	
Figure 1.1 U.S. Rates of Adult Drug Arrests by Race, 1980-200710)
Chapter 2: Theoretical Frameworks and Literature Review	
Figure 2.1 National Data on Drug Use by Race and Type, 1979-200321	
Chapter 3: Setting of the Study: St. Louis, Missouri	
Table 3.1 Comparison of St. Louis with Five Midwestern Cities and the United States	1
Chapter 4: Quantitative Component	
Table 4.1 Descriptive Parameters for Population of Neighborhoods	
Figure 4.1 Racial Composition, Drug Arrests, and Drug Deaths across St. Louis N'hoods	30
Counts Table 4.6 Negative Binomial Regression Results for Race-Specific Drug Sale/Mftg. Arrest	
Counts Table 4.7 Negative Binomial Regression Results for Race-Specific Total Drug Arrests by Neighborhood Type	
Figure 4.2 Marginal Effects of Racial Composition on White Total Drug Arrests Figure 4.3 Marginal Effects of Racial Composition on Black Total Drug Arrests	
Chapter 5: Qualitative Component	
Figure 5.1 Stratified Random Sampling Scheme for Sample of 300 Drug Arrest Reports	Jg
Table 5.2 Descriptive Statistics of Drug Arrest Incidents by Neighborhood Type12 Figure 5.2 Distribution of the Pathways to Drug Arrests for Sample12	
Table 5.3 Pathways to Drug Arrests by Neighborhood Type	
Table 5.5 Pathways to Drug Arrests by Arrestee Race in Each Neighborhood Type14	
Appendix A: Multivariate Tables with Coefficients1	87

Abstract

Black-white racial disparities in drug arrests are large and longstanding in the U.S. criminal justice system, as black Americans are arrested for drug offenses at a rate nearly five times the rate of white Americans. Because drug offending data mostly show that blacks are no more likely than whites to use or sell drugs, racial disparities in drug arrests appear to be attributable to factors other than drug offending. This dissertation assesses whether neighborhood contextual factors can explain racial disparities in drug arrests across St. Louis neighborhoods between 2009 and 2013. Using mixed methods, the quantitative and qualitative components test leading explanations of the racial disparity problem: differential drug involvement theory, differential scrutiny theory, and racially-biased policing theory.

The findings refute differential drug involvement theory and show some evidence of differential scrutiny, although differential scrutiny cannot explain the racial disparity in drug enforcement. Instead, the results lend the greatest credence to racially-biased policing theory. Specifically, the multivariate statistical analysis shows that neighborhood racial composition is the strongest predictor of the racial disparity problem, net of neighborhood-level drug problems, violent and property crime, citizen calls for drug service, and social disorganization. Racially-biased drug enforcement manifests as racial incongruity, or "out-of-placeness," as citizens face the greatest risk for drug arrests when their race is incongruent with the neighborhood racial context.

Additionally, a grounded theory analysis of officers' narratives in drug arrest reports reveals qualitative differences in drug enforcement practices across racialized neighborhoods and between blacks and whites. Police tend to use reactive policing to initiate drug arrests in white neighborhoods and of white citizens. In contrast, police tend to use officer-initiated, more invasive policing practices in drug arrests of black citizens and in black and mixed neighborhoods. Officers sometimes justified initiating these proactive encounters based on characteristics of the neighborhood or citizens' demeanor, even when citizens were not engaging in prohibited behaviors. Thus, the excessive use of officer-initiated vehicle and pedestrian stops and officer surveillance of black people and in black and mixed neighborhoods appears to widen the net for blacks as drug arrestees. Findings from this dissertation suggest avenues for future research and have important implications for social change and police reform.

Acknowledgements

Reaching a critical milestone in one's life or career often evokes self-reflection. As I finalize this dissertation, I can't help but reflect on all the events that culminated to this moment and the people who helped me get here. One of my greatest influencers is my mother, to whom I am indebted. She raised me as a single mother in one of Chicago's roughest neighborhoods and modeled to me hard work, diligence, and integrity. I've learned from her how to persevere through adversities and to hold myself to a high standard. These qualities have helped me endure the PhD program. Without my mother, my life would've taken a different direction, and I wouldn't be here—finishing a dissertation or PhD. I also thank the rest of my family and friends for their support and keeping me grounded.

My graduate school training at UMSL has helped me reach this milestone. My friends and family often question why I moved to St. Louis and chose to pursue a PhD at UMSL, and colleagues from other universities ask similar questions. I always respond by saying that I wanted to be the best criminologist I could be, so I needed to be trained by the best. And that's exactly who trained me: the best. The CCJ faculty at UMSL are beyond phenomenal and have inspired me to be a strong scholar as well as a good colleague and mentor. I extend my gratitude to Beth Huebner who has been a great mentor since my start in the program. She always made herself available to listen to my questions and concerns, and her advice and support have helped me navigate the PhD process. I express thanks to the CCJ professors who have shaped me intellectually in graduate classes and taught me the skills of a criminologist. These professors include: Bob Bursik, Beth Huebner, Richard Wright, Janet Lauritsen, Rick Rosenfeld, Lee Slocum, Finn Esbensen, and Kristin Carbone-Lopez. Moreover, I would like to thank the qualifying exam committee—Bob Bursik, Elaine Doherty, and Michael Campbell. The qualifying exams definitely prepared me for the dissertation and the research publication process, and the committee's critiques and suggestions have helped me think critically about my work beyond the qualifying exams.

Nearly two years ago, Roland Chilton charged several criminologists throughout the country to empirically study racial disparities in drug arrests in their respective cities. Rick Rosenfeld enthusiastically responded to this charge and invited graduate students to tackle the research question. Sherri Schaefer and I responded to Rick's invite, and the three of us met weekly and worked diligently for a year on projects related to this topic and presented findings at the 2014 American Society of Criminology meeting. I enjoyed the topic so much that I expanded one of the projects and made it my dissertation. I thank Roland for his bold charge and for imploring researchers to address an important problem. And I thank Rick for his enthusiastic reply and invite to address the research question. I lend credit to Roland and Rick for my dissertation topic.

Speaking of Rick, I am indebted to him for being one of my greatest intellectual influencers and a phenomenal mentor and chairperson. He has been incredibly supportive and generous with his time and expertise, such as helping me gain access to data,

connecting me with resources, reviewing drafts of my work, and providing sage advice. Additionally, I thank him for advocating for me. His optimistic disposition and belief in me have made it easier to navigate this challenging PhD process.

Finishing a dissertation is no small feat, and it's easier to do so with the right committee. I am fortunate for the guidance of Rick, Janet Lauritsen, Michael Campbell, and Rod Brunson during this journey; Rick, for all the reasons just mentioned in addition to his substantive and methodological expertise; Janet, for her quantitative methodological expertise and good critical eye; Michael, for his historical expertise, insightful ideas, and enthusiasm for the topic; and Rod, for his expertise in race and policing and qualitative research methods. I thank them for their critiques, which have helped me improve my work, and being responsive and available to answer my questions. I also appreciate their support during my time on the job market a few months ago. They wrote lots of letters of recommendation, gave sound advice, and vouched for me off record. I am grateful for my advisory committee.

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To everyone, thank you.

Chapter 1: Introduction

"...A national drug law enforcement strategy that casts a wide net..."
-Office of National Drug Control Policy, 1989, pg. 18

One of the most pervasive social problems in the United States is the overrepresentation of black Americans in the criminal justice system. Though whites comprise most of the nation's arrestees (Reitzel 2011, 169), blacks are overrepresented in the criminal justice system relative to their small makeup of 13% of the U.S. resident population (Rastogi et al. 2011; U.S. Census Bureau 2014). Blacks account for almost one-third of the nation's arrests, including 38% of violent crime arrests, 30% of property crime arrests, and 32% of drug crime arrests (Uniform Crime Report 2012). These arrest percentages more than double blacks' representation in the U.S. Looking at prison populations, 37% of male prisoners and 23% of female prisoners are black (Carson and Golinelli 2013). This overrepresentation translates to stark imprisonment rates. Black males have an imprisonment rate six times the rate for white males (2,841 vs. 463 per 100,000, respectively), and the imprisonment rate for black females more than doubles the rate for white females (115 vs. 49 per 100,000, respectively) (Carson and Golinelli 2013). Consequently, one in three black men, compared to one in 17 white men, have a lifetime risk of imprisonment, and one in 18 black women, compared to one in 111 white women, face such risk (Ghandnoosh 2015, 11).

Researchers have been only partly successful in explaining racial disparities in the criminal justice system. For example, evidence shows that blacks' disproportionate involvement in violent offending explains racial disparities in arrests and incarceration for violent crimes (Elliott and Ageton 1980; Lauritsen 2010; Sampson and Lauritsen

1997; Huizinga, Loeber, and Thornberry 1994; Katz 1988). Relatively rare offenses, violent crimes (e.g. murder, non-negligent manslaughter, rape, robbery, and aggravated assault) comprise 4% of the nation's total crime (Uniform Crime Report 2012). While scholars can explain racial disparities in arrests and incarceration for violent crimes, the sources of racial disparities in arrests for non-violent crimes—the majority of the nation's crimes—remain less understood. This is particularly the case for drug arrests, which contain relatively large black-white racial disparities that have persisted for decades (Blumstein 1982; Langan 1985; Tonry and Melewski 2008). Evidence on drug offending patterns shows that blacks are no more likely to use or sell drugs than whites (Mitchell 2009; Mitchell and Caudy 2013). Therefore, racial disparities in drug arrests cannot be explained by drug offending and appear to be unwarranted. If drug offending cannot explain why blacks are disproportionately punished for drug crimes, then what factors can explain this racial disparity? This dissertation seeks to empirically answer this important, unresolved inquiry.

THE WAR ON DRUGS

The War on Drugs from the 1980s provides the backdrop to the topic of racial disparities in drug arrests. This political shift was a key force behind burgeoning arrest and incarceration rates and increased racial disparities in the criminal justice system, particularly for drug crimes (Mitchell 2009; Tonry 1995). Throughout the 1800s and 1900s, the U.S. imposed many variations of the War on Drugs to suppress racial and ethnic groups of color (Provine 2007). Reminiscent of these racialized anti-drug initiatives, President Ronald Regan launched an unprecedented, consequential War on Drugs during the 1980s. This period was characterized by media frenzy, public panic, and

political fervor surrounding drug use and drug trafficking, particularly of crack cocaine that emerged in urban areas where blacks were more likely to live. Fueling this frenzy were the deaths of Len Bias and Don Rogers, two young black star athletes, who died from a cocaine overdose within a week (Mitchell and Lynch 2011). Capitalizing the momentum, media sources touted the dangers of crack cocaine, linked crack use to violence and other crimes, and argued that crack reached unprecedented proportions. Thousands of stories about cocaine appeared in the nation's prominent newspapers, many proclaiming the so-called crack epidemic (Trebach 1987). Politicians and the media propagated negative associations between crack and other social problems, and many of these associations were based on unfounded evidence, such as crack-using mothers giving birth to crack babies who would later suffer from permanent brain damage and low IQ scores and alleging that the crack epidemic was spreading from inner cities to middle-class suburbs (Mitchell and Lynch 2011). Moreover, the War on Drugs shifted the public's perceptions about the significance of drug problems and the profile of drug offenders. In 1985, for example, 1% of respondents identified drug use as the most important problem in America at that time; this increased to 10% of respondents in 1986 and then to 65% of respondents in 1989 who identified drug use as the most important problem, despite the fact that drug use, including cocaine use, had been decreasing for several years prior to 1989 (Reinarman and Levine 1997, 24). Moreover, racial stereotypes reeked as the media linked crack use to black Americans. Reeves and Campbell (1994) found that prior to the War on Drugs, 60% of the cocaine users and sellers shown on the television news were white, which reversed after 1986 when news stations depicted 66% of the cocaine users and sellers as people of color. Consequently,

public opinion studies revealed the public's stereotyping of drug offenders as black.

Burston, Jones, and Roberson-Saunders (1995) found that 95% of respondents in a survey in Washington D.C. envisioned the typical drug user or drug trafficker as a black person.

Media frenzy, political propaganda, and hysteria among the public about drugs, especially crack, spurred unprecedented responses to drug crime and the legislation of a series of harsh anti-drug policies. As such, Congress enacted the Anti-Drug Abuse Acts of 1986 and 1988, which reflected the punitive shift in drug enforcement, such as imposing deportation penalties for alien drug traffickers, mandatory minimum prison sentences of 10 years for first time drug offenders, and life sentences for drug offenses, to name a few (99th Congress 1986; 100th Congress 1988). Moreover, the federal laws distinguished between crack cocaine and powder cocaine by imposing the same penalty for one gram of crack as the penalty for 100 grams of powder cocaine. Adding to these statutes, the National Drug Control Strategy (ONDCP 1989) comprised laws that explicitly targeted street-level drug offenders—who tend to be people of color—who use and sell small quantities of drugs in public spaces. In doing so, the federal law overlooked drug offenders in closed drug markets who tend to be white users or dealers who handle large quantities of drugs (Dunlap, Johnson, and Manwar 1997). Furthermore, the federal government instituted laws, such as the 1994 Omnibus Crime Bill (103rd Congress 1994), that funded billions of dollars to states that enacted a range of anti-drug initiatives and penalties, such as building more prisons, enacting drug-free school zone laws that stiffened the sentences of mostly offenders of color, and instating aggressive law enforcement practices (Ghandnoosh 2015; Mitchell 2009).

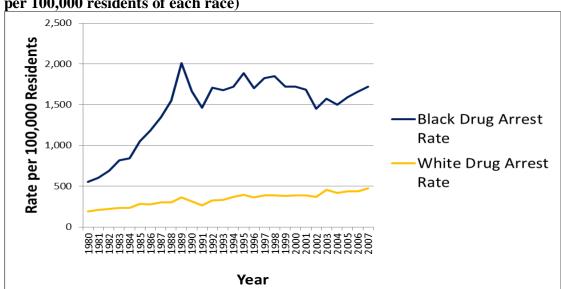


Figure 1.1 U.S. Rates of Adult Drug Arrests by Race, 1980-2007 (rates calculated per 100,000 residents of each race)

Retrieved from: Human Rights Watch (2009), http://www.hrw.org/en/node/81105/section/4

Data source: Uniform Crime Report

As depicted in Figure 1.1, in 1980 before the drug war, the black drug arrest rate was 554 per 100,000 black residents compared to the white drug arrest rate of 190 per 100,000 white residents, a ratio of three black drug arrests for every one white drug arrest (Human Rights Watch 2009). During the peak of the drug war in 1989, drug arrest rates increased for both groups, but most dramatically and more rapidly for blacks: 2,009 per 100,000 blacks and 363 per 100,000 whites, an increased ratio of five and a half black drug arrests for every one white drug arrest (Human Rights Watch 2009). Contemporary drug arrest rates still reflect these stark racial disparities across the U.S. In 2007—21 years after President Reagan launched the War on Drugs—the average black-to-white disparity ratio in the U.S. was 4.98; 17 states had disparity ratios above that average (Mitchell and Lynch 2011, 144–145). Racial disparity ratios vary across states, but there is no state where the white drug arrest rate exceeds the black drug arrest rate (Mitchell and Lynch 2011, 144–145). Additionally, state and federal prison populations rose for

drug offenses. There were 48,391 incarcerated drug offenders in 1985 prior to the War on Drugs, which increased to 326,700 incarcerated drug offenders by 2003, an increase of 575% (Mitchell 2009). Of the 22,000 newly admitted inmates with a drug offense as their most serious conviction in 1985, 39% were black and 38% were white. By 2003, of the 112,000 newly admitted inmates with a drug offense as their most serious conviction, 53% were black and 30% were white (Mitchell 2009). In addition, the average time served in prison for drug crimes rose from 14 months in 1983 to 24 months in 2001, a 70% increase during this period (Western 2006).

RACIAL DISPARITIES FUEL INEQUALITY

"The Nixon campaign in 1968, and the Nixon White House after that, had two enemies: the antiwar left and black people. You understand what I'm saying? We knew we couldn't make it illegal to be either against the war or black, but by getting the public to associate the hippies with marijuana and blacks with heroin, and then criminalizing both heavily, we could disrupt those communities. We could arrest their leaders, raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course we did."

-John Ehrlichman (President Nixon's Chief Domestic Advisor), 1994 Source: (Baum 2016)

Ultimately, the War on Drugs was deemed a racially-biased policy that declared war on black people and exacerbated preexisting racial disparities (Alexander 2010; Miller 1996; Mitchell 2009; Provine 2011). As such, blacks' overrepresentation in drug arrests, especially if unwarranted, constitutes a serious social problem. First, disproportionately targeting blacks contradicts America's values of fairness, justice, and equality. In the same vein, such racial profiling violates federal civil rights laws and the 4th and 14th Amendments of the Constitution that protect against unreasonable policing practices and guarantee equal protection. Indeed, the federal government has determined

that simply stopping or ticketing black Americans at disproportionately high rates is unconstitutional. For example, the U.S. Supreme Court ruled that New York City's stop-and-frisk practices racially-profiled blacks and Hispanics and violated their constitutional rights (*Floyd et al v. City of New York* 2013). The U.S. Department of Justice recently found the Ferguson Police Department in Missouri to violate constituents' 4th and 14th Amendment rights by disproportionately stopping and ticketing black divers, among other problematic practices (U.S. Department of Justice Civil Rights Division 2015). Thus, unwarranted, racially-disparate drug arrests could also fall in line with these other unconstitutional practices.

Contact with the criminal justice system can be life-altering. Blacks' overrepresentation as drug arrestees disproportionately exposes them, their families, and communities to potentially serious, long-term collateral consequences that compound racial and socioeconomic inequality in the U.S. (Holzer, Raphael, and Stoll 2004; Pager 2007; Pettit and Western 2004; Travis 2005; Western, Pettit, and Guetzkow 2002). Simply being arrested can create psychological and financial strain and result in job loss. Arrestees who are able will need to post bond while those less fortunate might remained jailed. In addition, blacks' disproportionate contact with the police intensifies already strained relations between the police and black community and can easily translate into perceptions of procedural injustice (Gau and Brunson 2010; Gau and Brunson 2015). Perceptions of procedural injustice, such as racial profiling, foster crime by eroding the legitimacy of the police and undermining the capacity of officers to influence citizens' behavior and control crime (Tyler 2006). Additionally, being disproportionately stopped and arrested can entangle blacks into a cycle of offending and criminal justice

involvement. Negative perceptions of the police can amplify antisocial attitudes and offending behaviors in the long term (Slocum, Wiley, and Esbensen 2016).

The collateral consequences of criminal justice contact worsen when drug arrestees are subsequently convicted, imprisoned, and must reintegrate into society. A criminal record can create a barrier to gainful employment, especially for blacks who already experience racial discrimination in the workforce, even without a criminal record (Pager 2007). Further, because the drug war extended beyond the criminal justice system to other social institutions, drug felons are restricted from benefits that even violent and sex offenders can attain, such as food stamps, cash assistance, and financial aid for college (100th Congress 1988; 104th Congress 1996). Because ex-offenders experience economic hardships, they often rely on family members for primary support, which can be stressful for families, especially those that were already fragile. Additionally, many states prohibit felons from voting. Blacks' overrepresentation among the disenfranchised has strong implications for communities of color whose voices and interests are muted in the political process, reducing their political power. In addition, removing large percentages of blacks from the population undermines family formation in the black community. It jeopardizes existing marriages and reduces marriage prospects (Braman 2004; Carlson and Cervera 1992; Comfort 2009), and black children face a greater risk for being reared in single-parent households and experiencing a host of adverse consequences associated with parental incarceration (Gaston 2016; Wakefield and Wildeman 2011; Western and Wildeman 2009). Further, incarcerating large percentages of blacks destabilizes black communities and erodes informal social control, leaving black communities vulnerable to crime (Clear 2007; Rose and Clear 1998).

Disproportionately arresting black Americans for drug offenses can translate into a vicious cycle of impediments for arrestees, families, communities, and the larger society. Many of these impediments are criminogenic and can confer long-term harm and inhibit socioeconomic mobility. Racially-disparate collateral consequences that stem from racial disparities in drug arrests perpetuate racial, social, and economic inequality in America, erode the economic and social buffers that prevent crime, and reinforce the system of white supremacy that has continually oppressed blacks. Therefore, longstanding, ostensibly unwarranted racial disparities in drug arrests constitute a substantial social problem that requires scholarly attention and possibly appropriate policy and police reforms.

GOALS OF THE DISSERTATION

Clearly, the drug war exacerbated preexisting racial disparities in criminal justice in a way that disproportionately affected black Americans. Yet, it is unclear what specific features of the drug war provided the impetus. Arrests are the entry point to the criminal justice system and account for 61% to 80% of black overrepresentation in prisons (Blumstein 1982; Langan 1985; Tonry and Melewski 2008). Because drug offending cannot explain racial disparities, examining the factors that influence officers' drug arrest decisions is a necessary endeavor. Despite the social, political, and criminological significance of the problem, few empirical studies have directly examined factors that might explain why officers disproportionately arrest blacks for drug crimes given the racial parity in drug involvement. So far, this developing body of research has found that factors other than drug offending, such as law enforcement practices, seem to explain the racial disparity. Such studies have employed many methodologies at various levels of

analysis (Beckett, Nyrop, and Pfingst 2006; Mitchell and Caudy 2013; Parker, Stults, and Rice 2005). However, to date, no empirical research has assessed this inquiry at the neighborhood level.

Police behave differently in different neighborhood contexts, and understanding the interplay between neighborhood context and drug enforcement practices might elucidate the racial disparity problem. For example, scholars have hypothesized that officers use aggressive or proactive policing tactics in crime-ridden neighborhoods while others argue that officers use less vigor in areas with high disadvantage and crime (Black 2010; Klinger 1997). Some research reports higher levels of police disrespect and use of force against citizens in economically disadvantaged neighborhoods (Mastrofski, Reisig, and McCluskey 2002; Terrill and Reisig 2003). Further, neighborhood racial composition can shape policing practices (Fagan and Davies 2000; Smith 1986; Stewart et al. 2009). Studies have found that the percentage of black residents is positively related to perceptions of neighborhood crime and disorder, controlling for actual levels of crime and disorder (Quillian and Pager 2001; Sampson and Raudenbush 2004).

This dissertation research examines whether neighborhood contextual factors can explain racial disparities in drug arrests. Focusing on drug arrests in St. Louis, Missouri between 2009 and 2013, it seeks to answer the following research questions: (1) Do neighborhood-level factors help explain racial disparities in drug arrests? (2) Can qualitative differences in drug enforcement practices across racialized neighborhoods and arrestee race help explain the racial disparity problem? Two components address these research questions. First, the quantitative component uses multivariate statistical techniques to assess whether neighborhood characteristics can explain racial differences

in drug arrests. Neighborhood characteristics include: the number of illicit drug overdose deaths as a proxy for drug involvement, violent and property crime, citizen calls for drug service, racial composition, residential instability, and economic disadvantage. Second, the qualitative component analyzes a sample of officers' narratives in drug arrest reports that correspond to the drug arrests in the quantitative analysis. Based on officers' descriptions of drug arrest incidents, the qualitative component explores whether the nature of drug enforcement varies by neighborhood racial context and by arrestee race. Variations in policing practices might be observed in the way drug arrests are initiated (e.g. from citizen complaints, calls for service, traffic stops, ongoing drug investigations, pedestrian stops), styles of policing (e.g. reactive, proactive), or factors that motivate officers' decisions to arrest. A rich supplement to the quantitative component, the qualitative analysis has the potential to reveal how variations in the nature of drug enforcement practices might contribute to racial disparities in drug arrests. Together, both components can potentially advance knowledge about racial disparities in the criminal justice system and inform policies that lead to more equitable policing and alleviate harm done to people of color, families, communities, and the larger society.

The next chapter—Chapter 2—explores three theoretical frameworks scholars have used to explain racial disparities in drug arrests, and it reviews extant research on this topic. Chapter 3 contextualizes this dissertation research by describing St. Louis, the setting of the study. It places emphasis on historical and political factors that gave rise to present-day neighborhood conditions and grounds our understanding of the racial disparity problem. Chapter 4 is devoted to the quantitative component of the dissertation. It discusses the data set, measures, analytic strategy, descriptive parameters, and bivariate

and multivariate results. Chapter 5 focuses on the qualitative component of the dissertation and describes the data, analytic strategy, and qualitative findings. The last chapter, Chapter 6, summarizes the major findings from the quantitative and qualitative components and discusses the implications for research and policy.

Chapter 2: Theoretical Frameworks and Literature Review

Researchers have offered three theories to explain racial disparities in drug arrests: differential drug involvement theory, differential scrutiny theory, and raciallybiased policing theory. According to differential drug involvement theory, groups of color are more likely to experience economic deprivation, making them prone to using and selling drugs in order to cope with poor economic conditions and other strains. Thus, scholars believe racial disparities in drug arrests reflect racial disparities in the extent of drug offending (Baumer 1994; Currie 1993; Duster 1997; Hagan 1994). Differential scrutiny theory posits that police deployment is concentrated in disadvantaged, crimeprone areas where blacks are more likely to live, which places blacks at greater risk for arrest (Engel, Smith, and Cullen 2012; Skogan and Frydl 2004; Tomaskovic-Devey, Mason, and Zingraff 2004). Scholars also contend that the public nature of urban drug markets adds to this increased scrutiny by making drug offenders more susceptible to police detection (Blumstein 1993; Coker 2003; Dunlap, Johnson, and Manwar 1997; Goode 2002; Human Rights Watch 2008; Ramchand, Pacula, and Iguchi 2006; Tonry 1995). Thus, differential scrutiny theory attributes the racial disparity problem to greater police surveillance in disadvantaged, crime-ridden, predominately black neighborhoods. The third explanation, racially-biased policing theory, hypothesizes that officers differentially police black people and black communities in order to protect white dominance (Blalock 1967; Liska and Chamlin 1984) or because of the implicit racial biases they hold against blacks (Alexander 2010; Beckett et al. 2005; Beckett, Nyrop, and Pfingst 2006; Ghandnoosh 2015; Human Rights Watch 2008; 2009). This chapter

provides an in-depth discussion of these three theories and the research that accompanies them. Then it discusses extant empirical research on the racial disparity problem.

DIFFERENTIAL DRUG INVOLVEMENT THEORY

Some scholars argue that racial disparities in drug arrests reflect racial differences in the extent of drug involvement. Put simply, this hypothesis posits that blacks use and sell drugs more frequently than whites and, as a result, blacks are disproportionately arrested and punished because they are disproportionately involved in drugs (Baumer 1994). In addition, proponents of this theory believe that growing racial disparities in drug arrests in the 1980s stem from growing economic inequality between blacks and whites during that period. As a result, blacks were more likely to cope with stressors by using drugs or by gaining employment in the illicit drug market in order to generate income (Baumer 1994; Currie 1993; Duster 1997; Hagan 1994). If racial disparity in drug involvement is the primary cause of the racial disparity in drug arrests, as this theory asserts, we would expect blacks to have higher levels of drug involvement than whites, especially during the late 1980s when drug arrests, and racial disparities among them, began to soar. Nevertheless, when examining evidence of drug offending patterns by race, it generally shows similarities between black and white drug offending patterns over time, therefore refuting the differential drug involvement theory.

Arrest and incarceration statistics come from criminal justice agencies and reflect a combination of factors, including offending patterns, organizational practices, and discretionary decisions, and are likely biased estimates of offending (Lauritsen 2010; Walker, Spohn, and DeLone 2011). Alternate data sources, such as national self-report, social, and health data sources, curtail the potential biases reflected in official data and

are better suited to describe the extent of drug offending. Collectively, these data sources mostly reveal that blacks are no more likely to use or sell drugs than whites (Mitchell 2009; Mitchell and Caudy 2013; Ramchand, Pacula, and Iguchi 2006; Snyder and Sickmund 1999; Snyder and Sickmund 2006).

According to the National Longitudinal Survey of Youth, a nationally representative panel study of approximately 9,000 youth, whites are more likely to use and sell marijuana than blacks, and there are no racial differences in the selling of hard drugs (e.g. crack, cocaine, heroin) (Snyder and Sickmund 1999; 2006). Going a step further, Mitchell (2009) used the same dataset to test whether racial differences in drug use and drug sales can explain racial differences in arrests for drug possession and drug distribution. Mitchell found that although blacks were significantly less likely to use drugs (including hard drugs) than whites, blacks reported significantly more arrests for drug possession; specifically, 9% of black drug users and 7% of white drug users reported ever being arrested on a drug possession charge (Mitchell 2009, 61). Likewise, Mitchell's findings showed that blacks were significantly less likely to sell drugs (including hard drugs) than whites, but blacks were significantly more likely to report being arrested for drug distribution; specifically, 29% of black drug dealers versus 12% of white drug dealers were arrested on a drug distribution charge (Mitchell 2009, 62). Mitchell's analysis of data from the National Longitudinal Survey of Youth concluded that racial differences in drug involvement could not explain racial differences in drug arrests.

In the same vein, the National Household Survey on Drug Abuse, a representative sample of households, reports higher levels of drug use among non-Hispanic whites than

non-Hispanic blacks (SAMHSA 1998). Estimates from its successor, the National Survey of Drug Use and Health, show that in 2008, 80% of all self-reported drug users 18 years or older were white, and there were four white drug users for every one black drug user; whites comprised 78% of marijuana users, 84% of cocaine users, 80% of crack users, 91% of hallucinogen users, and 96% of inhalant users (Mitchell and Lynch 2011, 147).

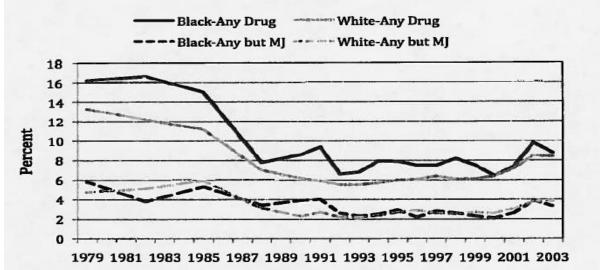


Figure 2.1 National Data on Drug Use by Race and Type, 1979-2003

Retrieved from: Mitchell and Lynch 2011, pg. 149 Data source: National Household Survey of Drug Use and National Survey of Drug Use and Health, various years

Some data sources provide trends of race-specific drug use patterns over time.

One example is the Monitoring the Future dataset, a nationally representative sample of high school seniors. Data from Monitoring the Future found that during every year between 1975 and 2010, black high school seniors had lower rates of illicit drug use in the past year than their white and Hispanic counterparts (Johnston et al. 2011). Moreover, blacks reported lower levels of each type of illicit drug use than other races every year during this period. Illicit drug types included: marijuana, crack, other cocaine, heroin, inhalants, hallucinogens, and methamphetamine. Because Monitoring the Future is a

school-based sample, students who have a greater likelihood of drug use (e.g. dropouts, chronic absentees) were excluded, which might underestimate the prevalence of drug use in the sample. Overcoming this limitation, data from the National Household Survey of Drug Use and the National Survey of Drug Use and Health tell a similar story. Mitchell and Lynch (2011) compiled longitudinal trends of drug use by race and drug type between years 1979 and 2003, as displayed in Figure 2.1. These trends show that blacks reported slightly more illicit drug use throughout the period; the largest racial disparity during the series was a black-white difference of 4 percentage points. However, when excluding marijuana from the analysis, black and white rates of drug use were very similar, indicating that blacks were more likely to use marijuana, but not other drugs, than whites. Adding to these themes, the Food and Drug Administration and Centers for Disease Control and Prevention recently uncovered evidence of a heroin epidemic, especially for non-Hispanic whites. Analyzing data from the National Survey on Drug Use and Health and the National Vital Statistics System, the agencies found that between 2002 and 2013, heroin use rates per 1,000 non-Hispanic whites significantly increased 114% (from 1.4 in 2002-2004 to 3.0 in 2011-2013) while rates per 1,000 blacks and Hispanics decreased 15% (Jones et al. 2015). Rates of heroin use among non-Hispanic whites nearly double the rates for their counterparts (3.0 versus 1.7, respectively, per 1,000). Together, drug use trends show that black drug use declined and converged with white drug use over time, even after 1980 when drug arrests—and racial disparities among them—began increasing. These studies contradict trends that show sustained and growing racial disparities in drug arrests over time and refute differential drug involvement theory.

Despite the fact that these national datasets capture involvement in hard drugs (e.g. heroin, crack/cocaine), some researchers argue that the prevalence of drug involvement in these sources might not reflect the kinds of serious drug use that could lead to an arrest (Goode 2002; Western 2006) and recommend the use of other measures of serious drug use, such as drug-involved emergency room visits and accidental drug overdose deaths. The Drug Abuse Warning Network monitors the number of drug-related emergency room visits in a nationally representative sample of 24-hour emergency departments. Of the 1.3 million emergency room visits for illicit drugs in 2011, 51% of patients were white, 31% were black, and 11% were Hispanic (SAMHSA 2013, 27–30). These estimates showed that whites comprised the largest group of illicit drug users of marijuana, heroin, cocaine, amphetamines, methamphetamines, and hallucinogens, but blacks' representation among drug users more than doubled their presence in the general U.S. population. Another indicator of serious drug use is fatal drug overdose. A study in New York City between 1990 and 1998 found that black and Latino rates of fatal drug overdose were consistently higher than those of whites during the time period, especially for cocaine-related deaths. In 1998, fatal drug overdose rates were 21.3 per 100,000 blacks, 18.9 per 100,000 Latinos, and 15.2 per 100,000 whites (Galea et al. 2003). While drug-related emergency room visits and fatal drug overdoses offer an additional source of data on drug offending, they could be a function of accident proneness (Martínez, Rosenfeld, and Mares 2008) or differential access to resources for those who survive (i.e. wealthy users might have private doctors) (Beckett, Nyrop, and Pfingst 2006).

With the exception of emergency room data and accidental drug overdose data, the evidence shows that blacks are no more involved in drugs than whites. In the few

instances where blacks have greater drug involvement than whites, the racial disparity in drug involvement is minuscule relative to the racial gap in drug arrests. Together, these data sources call into question differential drug involvement theory and suggest that factors other than the extent of drug offending account for stark racial disparities in drug arrests and incarceration.

Though support for differential drug involvement theory is limited, this dissertation must still consider the hypothesis. This is because national data on drug offending are gathered from individuals and averaged to compute national averages.

National averages might mask geographical differences in drug offending across places. In other words, though there are no racial disparities in drug offending among individuals at the national level, drug involvement might be concentrated in the most disadvantaged places where blacks are more likely to frequent and where police are more likely to patrol. By including a measure of drug overdose deaths—a proxy for the distribution of serious drug involvement—this dissertation will be able to assess the validity of differential drug involvement theory at the neighborhood level by determining whether there is variation in drug involvement across racially-characterized neighborhoods and by assessing whether neighborhood-level drug involvement predicts racial differences in drug arrests when controlling for relevant covariates.

DIFFERENTIAL SCRUTINY THEORY

Unlike differential drug involvement theory which focuses on quantitative differences in black and white drug offending, differential scrutiny theory argues that differential police deployment, coupled with racial differences in the *nature* of drug offending, puts people of color at greater risk for arrest and explains the racial disparity

problem (Mitchell and Lynch 2011). Also known as the "deployment hypothesis," differential scrutiny theory contends that police presence is greater in disadvantaged neighborhoods characterized by high crime rates, particularly violent crime, and large volumes of citizen complaints (Engel, Smith, and Cullen 2012; Warren et al. 2006). People of color are more likely to live in such areas. Thus, the heavy deployment of officers to areas where blacks are more likely to live and frequent increases the risk for police detection. Further increasing police scrutiny is the visible and violent nature of drug involvement in disadvantaged neighborhoods. In such areas, drug use and drug dealing are more likely to occur in public places (e.g. street corners) and semi-public places (e.g. drug houses) that are visible to police rather than in private places where whites are more likely to use and deal drugs (Blumstein 1993; Coker 2003; Dunlap, Johnson, and Manwar 1997; Goode 2002; Human Rights Watch 2008; Ramchand, Pacula, and Iguchi 2006; Tonry 1995). In addition, drug transactions that occur publicly in disadvantaged areas tend to be characterized by frequent, small transactions between strangers whereas drug transactions in private spaces tend to involve the exchange of large quantities of drugs among acquaintances (Dunlap, Johnson, and Manwar 1997; Ramchand, Pacula, and Iguchi 2006). Taken together, law enforcement's tendency to heavily patrol predominately black neighborhoods and the public nature of drug offending in such areas expose disadvantaged areas—and the people frequenting them to greater police surveillance, increasing the risk of black arrest and decreasing the risk of white arrest.

Legislation, public pressure, and fear of crime influence police organizations, and police organizational structure and policies, in turn, influence police behavior (Reitzel

2011). Police administrators are more likely to concentrate police enforcement and directed patrol practices in high crime areas (Engel, Smith, and Cullen 2012). Increasingly, police agencies rely on workload formulas based on crime reports and citizens' calls for service in order to identify high-crime areas. Crimes reported to the police and citizens' calls for service have historically shaped workload formulas, such as determining the size of police beats and the location of patrols (Coe and Wiesel 2001; Cordner 1979; Orlando Winfield Wilson 1941). In effort to reduce crime, agencies deploy rapid, focused personnel and resources to areas signaling the most need (Leonard 1982; Skogan and Frydl 2004; Weisburd et al. 2003; Willis, Mastrofski, and Weisburd 2004; Wilson 1963). A series of experimental-based studies have demonstrated the crime-reduction utility of such popularized hot spots policing and problem-oriented policing (Braga et al. 1999; Rosenfeld, Deckard, and Blackburn 2014; Sherman, Gartin, and Buerger 1989; Weisburd and Green 1995).

In addition to differential police deployment, researchers have pointed to race and neighborhood differences in the nature of drug offending. In their large-scale ethnographic study of crack, cocaine, and heroin dealers, Dunlap, Johnson, and Manwar (1997) found two distinct types of drug-selling careers: inner-city drug dealing and middle-class drug dealing. Dealers from both types were typically youths or young adults, but inner-city dealers often lacked access to private settings and usually sold drugs in small quantities in public locations to buyers they did not know. In contrast, middle-class drug dealers almost always sold drugs in large quantities to a consistent base of customers whom they knew. Another characteristic distinguishing these two types of dealers was the use of violence. Violence was typically rare for middle-class dealers, but

violence was common among inner-city drug dealers. Research consistently demonstrates a strong relationship between urban drug markets and violent crime (Baumer et al. 1998; Martínez, Rosenfeld, and Mares 2008; Ousey and Lee 2004). Ramchand, Pacula, and Iguchi (2006) also found evidence of racial differences in the nature of drug offending. They examined the purchase patterns of marijuana users from the 2002 National Survey on Drug Use and Health and found that blacks were significantly more likely to engage in risky purchasing patterns. Specifically, the researchers found that compared to whites, blacks were nearly twice as likely to buy marijuana outdoors, three times more likely to buy marijuana from a stranger, and more likely to buy marijuana away from their homes. Together, the concentration of police deployment and the visible and violent nature of drug markets in disadvantaged neighborhoods expose groups of color to greater police scrutiny and increase their risk for drug arrest.

This dissertation considers differential scrutiny theory in some respect. The quantitative analysis examines whether economic disadvantage, violent and property crime, and citizen calls for drug service are related to drug arrests when controlling for other relevant factors. A positive association between these neighborhood characteristics and drug arrests would suggest that disadvantaged, crime-prone neighborhoods with high calls for service attract police deployment and increase the likelihood of drug arrest.

RACIALLY-BIASED POLICING THEORY

Overlapping with differential scrutiny theory, racially-biased policing theory departs from focusing on racial differences in the nature of drug offending and focuses strictly on policing practices. Whereas differential scrutiny theory partly attributes seemingly race-neutral policing strategies to racial disparities in drug arrests, racially-

biased policing theory contends that racial disparities in drug arrests are a function of racial biases by police agencies and officers. In other words, the theory argues that policy makers, police agencies, and police officers have explicit or implicit racial biases that shape their construction of policies, perceptions of crime problems, and responses to crime in a way that disproportionately targets people of color (Alexander 2010; Beckett et al. 2005; Beckett, Nyrop, and Pfingst 2006; Ghandnoosh 2015; Human Rights Watch 2008; 2009).

Racially-biased policing is central to current national discourse and civil unrest surrounding a series of police killings of unarmed black men across the country. During a speech at Georgetown University in February 2015, FBI director James Comey openly acknowledged that police officers widely rely on racial biases as mental shortcuts in policing, and their behaviors stemming from those biases have strained their relationship with communities of color (Comey 2015). He is the first FBI director to ever speak publicly about racial biases in policing. Nearly a month later, the U.S. Department of Justice released findings from its investigation of the Ferguson Police Department and Ferguson Municipal Courts in the suburb of St. Louis, Missouri. The investigation uncovered substantial evidence of unconstitutional police practices, unduly harsh punishments, and explicit racial biases and stereotyping by police and court staff, such as officials' use of racist epithets and "...emails circulated by police supervisors and court staff that stereotype racial minorities as criminals, including one email that joked about an abortion by an African-American woman being a means of crime control" (U.S. Department of Justice Civil Rights Division 2015, 5). The federal investigation highlighted that blacks' disproportionate contact with Ferguson's criminal justice

officials "...cannot be explained by any difference in the rate at which people of different races violate the law...[but] at least in part because of unlawful bias against and stereotypes about African Americans" and "...discriminatory intent in violation of the Fourteenth Amendment" (U.S. Department of Justice Civil Rights Division 2015, 5). These present-day tensions between law enforcement and black citizens are embedded in three and a half centuries of lawful racism, subjugation of black Americans, and racialized policing practices, starting with law enforcement's early role as slave patrols during the slavery era (Ivanov 1985; Jones-Brown 2007; Reichel 1988).

RACIAL CONFLICT THEORIES

Racial Threat Hypothesis

Racially-biased policing theory is rooted in conflict theories, such as racial threat, benign neglect, and defended neighborhoods perspectives. While these perspectives diverge in their predictions about the way race shapes social control, they all posit a strong relationship between neighborhood racial composition and law enforcement.

Racial threat theory proffers that as the relative size of the black population increases in a given area, whites perceive a threat to their political, economic, and social dominance.

Social control against blacks is expected to increase in racially heterogeneous areas where opportunities for racial tensions are ripe and threat is perceived. Consequently, more police enforcement is mobilized against blacks to curtail perceived threats and to preserve white dominance (Blalock 1967). The theory also asserts that when the black population size increases to the point of blacks becoming the majority, assuring blacks' dominance, social control efforts allay. Thus, racial threat theory posits a curvilinear relationship between neighborhood racial composition and law enforcement, arguing that

social control will be greatest in areas where the relative black population size is small or comparable to that of whites.

Benign Neglect Hypothesis

In racially homogenous areas where blacks and whites are segregated, it is possible that racial segregation placates perceived racial threat and produces less social control (Spitzer 1975). Consistent with racial threat theory, researchers have found a positive effect of black percentage on police size, police expenditures, police killings, and total arrest rates (Jackson and Carroll 1981; Liska and Chamlin 1984; Liska, Lawrence, and Benson 1981). However, the inverse effect of black percentage has emerged when examining race-specific arrest rates, a phenomenon known as "benign neglect" (Chamlin 1987; Chamlin and Liska 1992; Liska and Chamlin 1984). That is, blacks face less social control in predominately black neighborhoods. Crime in such areas is expected to involve a black perpetrator and a black victim. As a result of fewer instances of black-on-white crime, white citizens put less pressure on officers to control crime involving a black perpetrator. Moreover, because whites are not threatened and the government views black victims as less deserving of official response (Hawkins 1987), less social control is imposed on blacks in these contexts.

Studies testing racial threat and benign neglect hypotheses have produced mixed results (for example, see Petrocelli, Piquero, and Smith 2003). While some research finds no support for racial threat or benign neglect (Ousey and Lee 2008), others have generally found evidence more consistent with benign neglect than racial threat, showing increases in the black population to be related to decreases in arrests (Chamlin and Liska 1992; Liska and Chamlin 1984; Parker and Maggard 2005; Parker, Stults, and Rice 2005)

and incarceration (Myers 1990). In their multi-level test of racial threat theory,
Stolzenberg, D'alessio, and Eitle (2004) found evidence consistent with benign neglect.
Controlling for relevant micro- and macro-level factors, they found that as the black
population increased in a city, the risk for violent crime arrests decreased, and in cities
with a large black population, crimes involving a black offender were less likely to result
in arrest. They also found that racial segregation conditioned the relationship between
offender's race and arrest. In racially segregated cities, crimes involving black offenders
were less likely to result in arrest whereas in racially mixed cities, police were more
likely to make arrests of black offenders. They concluded that racial segregation serves as
a mechanism used to allay the potential threat of subordinate groups.

Defended Neighborhoods Hypothesis

Whereas racial threat theory predicts greater social control against blacks in racially heterogeneous neighborhoods and benign neglect predicts less social control against blacks in predominately black neighborhoods, the defended neighborhoods hypothesis argues that blacks face more social control in predominately white neighborhoods at the hands of white citizens and police, especially if the black population has been growing (Green, Strolovitch, and Wong 1998; Lyons 2007; Stewart et al. 2009). This is because racial stereotypes that link blacks to social problems, such as drugs, crime, violence, and poverty, are pervasive (Bobo and Kluegel 1997; Loury 2002), and white citizens and police might view blacks as a threat to the neighborhood social order. Animosity toward blacks in these contexts might motivate white citizens to defend their territory and protect their interests by relying on the police, and blacks might be relatively powerless to defend themselves (Weitzer and Tuch 2004; Weitzer and Tuch 2005).

Stewart et al. (2009) investigated whether police discrimination against black citizens varied by neighborhood context and found support for the defended neighborhoods hypothesis. Controlling for neighborhood crime, socioeconomic conditions, and individual factors, black adolescents were more likely to experience police-based discrimination in predominately white neighborhoods that have had increases in the black population.

Research testing racial conflict theories resoundingly concludes that neighborhood racial composition shapes law enforcement practices. However, this body of research has produced mixed findings about the nature of the relationship between percent black and social control. Racial disparities in drug arrests, therefore, may reflect officers' differential use of social control in order to protect the interests of whites and to keep blacks subordinate. The quantitative component of this dissertation considers racial threat and benign neglect by testing the effect of neighborhood racial composition on drug arrests when controlling for other factors.

IMPLICIT RACIAL BIAS

Whereas racial conflict theories implicate racially-motivated biases, implicit racial bias theory emphasizes unconscious racial attitudes. Social psychologists assert that implicit bias stems from the unconscious system in the human brain that relies on mental shortcuts in order to make automatic associations, such as associations between blacks and crime, and to guide thinking and behaviors (Gladwell 2007). Implicit associations are widespread among humans and influence their perceptions and reactions, even unbeknownst to the perceiver and even among those who explicitly hold egalitarian, non-prejudiced views (Payne 2001). In other words, one need not be racist, hold racial

animus, or have racialized motivations to harbor implicit racial biases or to be influenced by them (Fridell 2008; Gladwell 2007; Payne 2001). Research suggests that these implicit racial associations are most likely to develop when police repeatedly encounter whites and blacks under different crime conditions. They then develop stereotypical scripts that reflect these experiences, and those scripts enable them to process new situations through stereotyped filters, resulting in their biased treatment of racial groups (Grant and Holmes 1981; Noseworthy and Lott 1984; Smith and Alpert 2007). Experimental research lends credence to implicit racial bias theory by linking participants' unconscious racial biases to racially discriminatory decisions (Correll et al. 2002; Eberhardt et al. 2004; Greenwald, Oakes, and Hoffman 2003; Payne 2001).

RACIAL PROFILING

Regardless of whether racial bias is conscious or implicit, these processes can manifest in racially-biased policing practices that result in the disparate treatment of blacks and the lenient treatment of whites (Fridell 2008; Gladwell 2007; Payne 2001). Compared to violent crime enforcement, police exercise higher amounts of discretion when enforcing drug laws (Ghandnoosh 2015), and cultural stereotypes linking blacks to drugs, crime, and undesirable behaviors can seep into these discretionary decisions (Fridell 2008; Lynch and Patterson 1996). Additional evidence supporting racially-biased policing theory in explaining racial disparities in drug arrests is informed by a larger body of research that broadly examines the role of race in policing policies and practices in general.

The Sentencing Project recently published a report of their analysis of uneven policing practices in Ferguson, Missouri (Ghandnoosh 2015). In Ferguson, blacks were

three and a half times more likely than whites to be stopped, and blacks were more likely to be stopped for investigative reasons—one of the most discretionary reasons for traffic stops of persons deemed suspicious (2015, 6). Racial differences in these discretionary stops also exist in other jurisdictions. Among drivers under age 25 in Kansas City, for example, black men were twice as likely as white men to be subjected to investigatory stops (28% versus 13%, respectively) and black women were more than twice as likely as white women to be stopped (17% versus 7%, respectively) (Epp, Maynard-Moody, and Haider-Markel 2014, 67).

After deciding to make a stop, Ferguson police searched 12% of black drivers compared to 7% of white drivers, though they were less likely to find contraband (e.g. drugs, weapons) on black drivers than white drivers; 22% of black drivers who were searched versus 34% of white drivers who were searched possessed contraband (2015, 6). Similarly, a study in Boston found that blacks comprised 63% of the citizens whom the Boston police observed, stopped, interrogated, frisked, or searched *without* making an arrest, though blacks comprised 24% of the city's population (ACLU Foundation of Massachusetts 2014). Examining stop and frisk data in New York City, Fagan and Davies (2000) found that blacks were significantly more likely to be stopped and frisked by the NYPD than whites and Hispanics/Latinos, controlling for resident's race, crime-specific crime rates, and the racial distribution across the city's 77 police precincts. They also found that in precincts where black residents comprised less than 10% of the resident population, blacks were more than twice as likely to be stopped for weapons offenses compared to their arrest rates whereas whites were less than one time more likely to be

stopped compared to their arrest rates. Additionally, blacks were nearly three times more likely to be stopped for alleged weapons violations in these neighborhoods.

Moreover, Ferguson police were twice as likely to arrest blacks as whites during traffic stops (10% versus 5%). Findings from traffic stops in Ferguson echo those in other jurisdictions. In New York City, blacks and Hispanics comprised 51% of the city's population over age 16 between years 2001 and 2013, yet blacks and Hispanics accounted for 82% of misdemeanor arrests and 81% of those who received summonses during that period (Ghandnoosh 2015, 8). National surveys show that once blacks are pulled over, they are three times as likely as whites to be searched and twice as likely as whites to be arrested (Eith and Durose 2011; Langton and Durose 2013). At the national level, 95% of more than 3,500 police departments arrest blacks at a rate higher than that of other racial/ethnic groups (Ghandnoosh 2015, 11). Together, these studies show that racially-disparate policing practices are glaring not just in Ferguson but also in other jurisdictions across the U.S.

In addition to racial differences in police stops, there are racial differences in experiences of police brutality during police-citizen encounters. Results from the 1999 Gallup poll revealed that 58% of people of color, compared to 35% of whites, reported that police brutality occurred in their local area (Gillespie 1999). Surveys from the Bureau of Justice Statistics indicated that blacks were up to three times as likely as whites to experience physical force or the threat of physical force during their most recent encounter with the police (Eith and Durose 2011; Langton and Durose 2013). Moreover, during deadly force encounters in recent years, police officers have killed young, black

males at a rate higher than that of their white counterparts (Ghandnoosh 2015, 28, endnote 2).

SUMMARY OF RACIALLY-BIASED POLICING THEORY

All in all, research suggests that black and white people and places experience different policing practices; people of color encounter the police at different rates and for different reasons and are treated differently during these encounters, suggesting that racial bias—whether intentional or otherwise—is at play. This dissertation tests raciallybiased policing theory with regards to drug enforcement in a few ways. The quantitative component includes neighborhood racial composition to gauge the relationship between the relative black population and social control. Racially-biased policing will be evidenced if racial composition is a significant predictor of drug arrests, controlling for confounders. Specifically, racial threat will be evidenced if increases in the black population significantly increase black drug arrests (Percent Black → + Black Drug Arrests) in white or mixed neighborhoods. A negative association between percent black and black drug arrests (Percent Black →- Black Drug Arrests) could indicate either benign neglect or the defended neighborhoods hypothesis. The qualitative component compares officers' drug enforcement practices across racially-characterized neighborhood as well as their treatment of black and white drug arrestees.

STUDIES ON RACIAL DISPARITIES IN DRUG ARRESTS

To summarize, current evidence casts doubt on differential drug involvement theory and suggests that differential scrutiny theory and/or racially-biased policing theory might be better explanations of the racial disparity problem. Though researchers have had much to say about racial disparities in criminal justice, drug enforcement, and policing,

most studies have been descriptive in nature or related to broader policing practices. A small body of studies has directly and empirically assessed the predictors of racial disparities in drug arrests at the individual level and city level.

In two studies using data from the National Longitudinal Survey of Youth 1997, Mitchell and Caudy (2013; 2015) tested whether race differences in self-reported drug arrests were explained by race differences in self-reported drug offending, controlling for non-drug offending, neighborhood contextual factors (e.g. living in the city center and living in neighborhoods with gangs), and other confounders. Focusing on arrests for any drug charge, fixed-effects logistic regression models revealed that race differences in drug offending and race differences in non-drug offending only reduced the magnitude of the black-white disparity in drug arrests by 15% and could not explain the disparity problem (2013, 20-21). The substantial racial disparity also remained when adding proxies for neighborhood context to the models, indicating that neighborhood context also could not explain the disparity problem. However, neighborhood context significantly increased the log-odds of drug arrest by 78%, holding other variables constant (2013, 20-21), suggesting the importance of neighborhood context on the risk for drug arrests. Their study on drug distribution arrests drew similar conclusions (2015). In fact, not only did drug offending and non-drug offending fail to account for racial disparities in drug distribution arrests, adding the offending measures to the models increased the magnitude of the racial disparity. This was because blacks and Hispanics reported lower levels of drug use and drug distribution than whites although blacks and Hispanics were significantly more likely to report being arrested for such offenses than whites. Blacks had 190% and Hispanics had 55% significantly greater odds of drug

distribution arrests than whites after controlling for age, socioeconomic measures, and several indicators of drug offending (e.g. use/sale of marijuana/hard drugs, drug sales income) and non-drug offending (e.g. assault, gun carrying, property offenses) (2015, 16).

Beckett, Nyrop, and Pfingst (2006) used three data sources to study drug distribution arrests in Seattle: 1) Seattle's Needle Exchange Survey data which described 911 transactions and the race/ethnicity of drug deliverers, 2) drug delivery arrest data from the Seattle Police Department (SPD) between 1999 and 2001, and 3) ethnographic observations of two well-known open outdoor drug markets. The needle exchange data showed that whites were the largest group of drug deliverers except for crack, which was more likely to be used and exchanged by blacks. The arrest data revealed that 72% of drug delivery arrests were for crack, and 79% of those arrested for selling crack were black (2006, 118-119). The researchers used z-scores to compare the racial composition of drug deliverers in the needle exchange data by drug type to the racial composition of drug delivery arrestees by drug type. They found that the SPD's focus on crack accounted for the overrepresentation of blacks in drug arrests. Blacks were significantly overrepresented and whites were significantly underrepresented among heroin, meth, and crack arrests. These comparisons mirrored their comparisons between the racial composition of drug delivery arrests and the racial composition of observed dealers in the ethnographic observations of the two outdoor drug markets. In Downtown, a racially mixed area, 38% of observed dealers were black and 39% were white, but 59% percent of arrestees in that census tract were black and 21% were white. In Capitol Hill, a predominately white census tract, 4% of observed drug dealers were black and 94% were

white, yet 32% of those arrested were black and only 57% were white in that tract (2006, 120). Beckett, Nyrop, and Pfingst concluded that race shaped the perceptions of Seattle's drug problem and SPD organizational practices (e.g. focus on crack rather than all drugs, focus on less-lucrative outdoor drug markets) explained why blacks were overrepresented as drug arrestees.

Engel, Smith, and Cullen (2012) believed that Beckett, Nyrop, and Pfingst's (2006) comparison of the needle exchange and observational data with drug arrest data overstated the extent of racial disparities in Seattle's drug delivery arrests. Engel and colleagues proposed that drug-related calls for service by citizens are an underused but more appropriate benchmark for comparing drug arrests. As such, they reexamined racial disparities in Seattle's drug arrests in Downtown and Capitol Hill and throughout Seattle. This reanalysis differed from the original analysis by focusing on all drug arrests rather than solely drug delivery arrests and focusing on a later time period (2004-2007 instead of 1999-2001). Comparing the racial/ethnic composition of drug arrests with the racial/ethnic composition of suspects being reported in calls for drug service, their descriptive analysis of ratios revealed that blacks and Hispanics were either evenly represented or underrepresented as drug arrestees in Downtown and Capitol Hill. Moreover, they estimated ordinary least square regression models and showed that more than 50% of the variance in drug arrests at the statistical reporting area-level and 75% of the variance in drug arrests at the census tract-level was explained by calls for drug service. However, the models did not include any control variables. In addition to this limitation, scholars have cautioned against the use of calls for service data as estimates of crime (see Klinger and Bridges 1997). While the study is limited by the questions it can

answer and the conclusions it can draw (see critique by Beckett 2012), it underscores the importance of considering citizen calls for drug service in analyses of drug arrests.

Parker, Stults, and Rice (2005) tested racial threat theory by examining racespecific drug arrests among a sample of 245 U.S. cities in year 2000. The researchers examined several measures capturing racial economic threat, including black composition, racial inequality (e.g. black-to-white educational attainment and unemployment rate), growth in the black immigrant population, and race-specific measures of structural disadvantage while controlling for number of sworn officers, residential mobility, Hispanic population, crime rates, political mobilization, and region. They did not include a measure of aggregate drug offending, such as fatal drug overdoses or drug-related hospital visits. The results showed, most notably, evidence of benign neglect rather than racial threat. Percent black and percent of black immigrants were negatively related to black drug arrests and not significantly related to white drug arrests. These effects were significantly stronger for blacks than whites. Economic disadvantage was positively related to arrests for both groups although its effect differed by racial group. These results suggested that benign neglect and concentrated disadvantaged contributed to racial disparities in drug arrests.

The before-mentioned studies at the individual and city levels advance research on racial disparities in drug arrests. Yet, as discussed earlier, examining drug arrests within the context of neighborhoods is an important endeavor since neighborhood characteristics shape crime and police behavior (Klinger 1997; Smith 1986). Findings at the individual or city levels might not hold at the neighborhood level where drug activity, crime, and drug enforcement are manifested. Neighborhoods are more internally

homogeneous than are cities and differ from one another more than cities (Martínez, Rosenfeld, and Mares 2008). As such, this dissertation adds to this body of research by offering the first neighborhood-level explanation of racial disparities in drug arrests.

Chapter 3: Setting of the Study: St. Louis, Missouri

"...A city northern in industrial development but largely southern in its inter-racial attitude." -Elwood Street 1927, pg. 248

This dissertation research examines race-specific drug arrests made across neighborhoods in St. Louis, Missouri between 2009 and 2013. St. Louis is divided into 79 established neighborhoods¹ that are meaningful social units to its residents. An industrial, Midwestern city, St. Louis has experienced rapid population decline in recent decades. In 1950, St. Louis had more than 850,000 residents but lost an average of 10,000 residents each year up to 2000 (Gordon 2009, 23), resulting in a current population of roughly 319,000 residents. Much of the population decline was due to white flight, the exodus of white residents from the city to the surrounding St. Louis County. Moreover, St. Louis' population is split almost evenly with black (49%) and white (46%) residents, with Hispanics and persons of other races comprising 5% of the population. A comparison of the characteristics of St. Louis with those of other Midwestern cities (e.g. Chicago, Indianapolis, Milwaukee, Kansas City, and Cincinnati) and the U.S. are presented in Table 3.1. St. Louis' relative black population size is higher than that in most U.S. cities and is nearly four times higher than the national average. The lack of racial and ethnic diversity is also relatively exceptional, although it has always been characteristic of St. Louis. For example, in 1940, 99.9% of St. Louisans identified themselves as either black (13%) or white (87%) (Gordon 2009, 11).

¹Due to one neighborhood being an industrial area with no resident population and subsequently, no data, this dissertation examines 78 neighborhoods.

Table 3.1 Comparison of St. Louis with Five Midwestern Cities and the United States, 2010									
	St. Louis,	Chicago,	Indianapolis,	Milwaukee,	Kansas City,	Cincinnati,	United		
	MO	${ m I\!L}$	IN	WI	MO	OH	States		
Population Size	319,294	2,695,598	820,445	594,833	459,787	296,943	308,745,538		
Black	49%	33%	28%	40%	30%	45%	13%		
White	46%	45%	62%	45%	59%	49%	72%		
Hispanic	5%	29%	9%	17%	10%	3%	16%		
Median Household	\$34,800	\$47,270	\$41,962	\$35,467	\$45,275	\$34,116	\$53,046		
Income									
Individuals in Poverty ^a	27%	23%	21%	28%	19%	30%	15%		
Unemployment Rate ^a	14%	14%	12%	14%	10%	13%	10%		
Vacant Housing Units	19%	13%	13%	10%	13%	17%	11%		
Violent Crime Rate per 100.000 ^b	1,943	1,054°	1,190 ^d	1,064	1,198	1,215	404		

Source: U.S. Census data for year 2010. Retrieved from: http://www.census.gov/quickfacts/table/PST045215/00.

Another defining feature of St. Louis is its marked racial segregation. Similar to industrial, Midwestern cities like Chicago, Cleveland, and Cincinnati, St. Louis has always been and remains one of America's most hypersegregated cities since the migration of southern blacks to the north (Massey and Denton 1989). St. Louis' black population is concentrated mostly in the city's northern, and more recently, southeastern neighborhoods. The white population resides primarily in the central corridor and southwestern neighborhoods. Additionally, economic disadvantage is pronounced in St. Louis and tends to be synonymous with race. Having relatively high poverty, 27% of St. Louis residents have incomes below the poverty level, and 14% of residents are unemployed. White households have a median income nearly twice that of black households (\$41,843 versus \$23,067, respectively), and black unemployment rates more than triple white unemployment rates (24% versus 7%, respectively)². Further

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF.

aData are 2009-2013 averages from the U.S. Census

^bCalculation of rate per 100,000 residents using violent crime counts (murder, rape, robbery, and aggravated assault) from the 2010 FBI's UCR and population data from the 2010 U.S. Census

Excludes rape because Chicago's data collection methodology for rape did not comply with guidelines for the UCR program

dBased on violent crime in 2009 because crime data for Indianapolis were unpublished by the UCR in 2010

²Census data retrieved from:

demonstrating St. Louis' economic disadvantage and decay, the city has a higher percentage of vacant housing units (19%) than most cities and the national average of 11%.

Cities with high levels of racial segregation and economic disadvantage tend to have high rates of violent crime (Logan and Messner 1987; Wilson 1987; Krivo and Peterson 1996; Peterson and Krivo 1993). Consequently, as shown in Table 3.1, violent crime rates in St. Louis are much higher than those at the national level and those in comparable cities. St. Louis' violent crime rate was 1,943 per 100,000 in 2010, a rate five times the national average (404 per 100,000). In 2011, the rate of firearm assaults and robberies in St. Louis was four times higher than that for all of U.S. cities with more than 250,000 residents (Rosenfeld, Deckard, and Blackburn 2014, 431).

The well-documented relationship between racial segregation and violence is due to the fact that segregated black areas, in particular, face higher levels of criminogenic conditions than segregated white areas or mixed areas, such as poverty, physical deterioration, dependency, poor schools, low educational attainment, and high unemployment rates (Massey, Condran, and Denton 1987; Peterson and Krivo 1993; Sampson and Wilson 1995; Wilson 1987). Moreover, segregated black neighborhoods are vulnerable to crime because they are isolated from mainstream society and networks of social opportunities, impeding black upward mobility and creating frustration among residents. With fewer middleclass and working class families to buffer the effects of uneven and poor economic conditions, economically deprived neighborhoods have a low capacity to sustain basic institutional structures. Fewer economic resources mean fewer stable institutions to offer formal and informal social control to prevent crime (Rose and

Clear 1998; Sampson, Raudenbush, and Earls 1997) and little political and economic power to protect the interests of the community. Additionally, widespread joblessness means idleness, more people hanging out, nonconventional role modeling, and opportunities for criminal involvement (Liebow 2003; Wilson 1987). Further fostering crime, residents are sometimes forced to adapt to these potentially dangerous conditions by using or appearing ready to use violence to protect themselves and their property (Anderson 1999).

HISTORY OF RACE RELATIONS AND RACIAL SEGREGATION

Stark racial segregation and economic disadvantage in St. Louis are no accident. They can be traced to a legacy of deliberate racial discrimination against blacks, which has given rise to present-day neighborhood conditions, interracial tensions, and high crime rates in St. Louis. An analysis of racial disparities in drug arrests is best understood through this historical context.

St. Louis is best summarized as a northern city with southern character. As a slave state that remained in the Union during the Civil War, Missouri has a legacy of anti-black racism and white supremacism (Gordon 2009). Yet, Missouri has levels of housing segregation and its corresponding social problems that are more consistent with northern states. It was one of the first segregated states to start desegregating schools and other institutions. St. Louis and Missouri have been the platform to seminal civil rights events and landmark court cases that shaped the city's and state's social climate and even gained national prominence. In 1857 in *Dred Scott v. Sandford* (1857), the U.S. Supreme Court ruled that black Americans, whether enslaved or free, were prohibited from being American citizens and had no standing to sue in federal court, and that the federal

government had no power to regulate slavery (Finkelman 1996). This decision came after Dred Scott, a slave in St. Louis whose owner leased him for work in Illinois and Wisconsin where slavery was prohibited, attempted to sue for his freedom to no avail. This seminal court case was one of the catalysts for the Civil War and was superseded by the Civil Rights Act of 1866 and the 14th Amendment, which gave black Americans full citizenship (Finkelman 1996). The Old Courthouse where the first two trials took place for this case still stands in downtown St. Louis. Missouri and St. Louis were home to countless landmark civil rights judgements related to housing segregation, educational segregation, and employment discrimination, including a 1969 rent strike in St. Louis public housing, which brought fair, affordable housing to the fore of the national civil rights agenda (Lang 2009).

Additionally, St. Louis and its nearby areas were home to infamous race riots. The East St. Louis riot in 1917 was the first and the deadliest of a series of race riots across the U.S. during the World War I era (Barnes 2008). White mobs attacked blacks in the streets of Eat St. Louis, Illinois during the spring and summer of 1917, which culminated to a full-scale riot on July 2, 1917. Angered at blacks' employment in the wartime industries, white mobs attempted to drive blacks from the community by destroying hundreds of homes and businesses with fire and killing dozens of people (Barnes 2008). The official death toll was 48 people, including children and babies, but historians believe upwards of 200 blacks were murdered during this gruesome riot. The East St. Louis race riot garnered national attention and paved the way for the Civil Rights Movement and contributed to the growth of the NAACP and Urban League (Barnes 2008).

Also pivotal to the history of race relations in St. Louis was a race riot at Fairground Park. St. Louis opened its first public swimming pool in Fairground Park in 1912, which was for whites only. In 1949, city officials opened the pool to black citizens in response to a federal law that ruled that prohibiting blacks from golf courses violated the 14th Amendment (Wiltse 2010). On the first day blacks accessed the pool, crowds of hundreds to thousands gathered as mobs of whites threatened black swimmers and beat them with bats. Police were called, and 150 officers intervened to restore order (Wiltse 2010). The pool was re-segregated for a year after the race riot before officials opened it to blacks again. By 1954, the city closed the pool because it was no longer profitable.

White hatred and violence against blacks in St. Louis was precipitated by the Great Migration in the early- and mid-20th-century. Hundreds of thousands of blacks migrated from the rural south to northern, western, and Midwestern cities, like St. Louis, seeking economic advancement and relief from Jim Crow laws. Fearing a "black invasion," whites believed blacks posed a grave threat to their interests, so they made deliberate, earnest efforts to contain and segregate black people. Most notably, these efforts were codified in the housing market as early as 1911 (Gordon 2009, 73). In 1916, St. Louis passed an ordinance that restricted blacks from living in areas more than 75% white based on the justification that blacks decreased property values and were a public nuisance. The *Buchanan v. Warley* (1917) Supreme Court decision struck down the ordinance, but local property owners and realty interest groups devised original deed covenants and restrictive agreements to continue racially discriminatory housing practices (Gordon 2009). Equating black occupancy with blight, these covenants prohibited selling, leasing, conveying, or renting to blacks in restricted areas. Blacks were

relegated to reside in the most dilapidated neighborhoods. By the 1950s, deed covenants and restrictive agreements waned as many of them expired and legal cases challenged their constitutionality. A 1948 Supreme Court case that began in north St. Louis (*Shelley v. Kraemer*) ruled that the state could no longer enforce restrictive deed covenants. Based in north St. Louis County, the Supreme Court decision in *Jones v. Mayer* (1968) prohibited racial discrimination in private real estate transactions. Despite legal efforts to thwart racial segregation, it persisted through the practices of real estate boards and commissions and redlining by realtors and financial institutions until local, state, and federal fair housing regulations banned these practices in the late 1960s.

Similar to other Midwestern cities like Chicago, Detroit, and Milwaukee, St.

Louis was a manufacturing, transportation, and agricultural processing hub in the late 19th century. The Mississippi River was its economic asset, and the city was known as the "gateway to the west" from the steamboat era (Gordon 2009). St. Louis' economy declined shortly after World War II. Jobs in declining sectors, such as manufacturing and mining, waned, and residents in north St. Louis, a large portion being black, lacked the freedom to move when the local employment base evaporated. Deindustrialization set in after the 1970s, and those who were economically able to move did. Between 1950 and 1970, scores of white residents fled the city to move to St. Louis County or south St. Louis (Gordon 2009). White flight not only contributed to steep population declines but also to economic declines as movers took with them their incomes, expenditures, and tax payments that local communities needed to survive. Thus, deindustrialization, depopulation, and disinvestment left St. Louis in physical decay and economically deprived. And black residents were left to face the worst of it, even until today.

The legacy of deliberate racial segregation, economic disadvantage, and white hostility toward blacks in St. Louis shape the social, economic, and political climate of today. The city's civil rights tradition and resistance by African Americans paved the way to positive change in the city, state, and even the nation, contributing to the rise of the contemporary Civil Rights Movement. Current unrest in Ferguson and just recently, at my university's sister campus, the University of Missouri (in Columbia, Missouri), is the manifestation of entrenched interracial strife that has always existed in the city and the state. Commenting on the nation's focus on racial tensions in Missouri, historian Colin Gordon notes that, "When you have this deep-seated pattern of housing segregation that becomes linked in people's minds to public safety and home values," blacks are viewed as dangerous outsiders, "...not full citizens...and that plays into the way police behave" and the way citizens view blacks (Marans 2016). Thus, this dissertation's neighborhood-level analysis of racial disparities in drug enforcement in St. Louis is best understood through this historical lens.

DRUG ENFORCEMENT IN ST. LOUIS

The St. Louis Metropolitan Police Department (hereafter SLMPD) is the agency responsible for making the drug arrests examined in this study. SLMPD's patrol and enforcement responsibility is limited to the city of St. Louis rather than the entire St. Louis Metropolitan area. Its enforcement was divided into nine police districts during the study period. In 2010, SLMPD had 1,920 full-time employees, including 1,363 officers and 557 civilian employees³. SLMPD's policing style is consistent with order

³Based on data from the FBI's UCR: https://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2010/c

maintenance policing, rather than community-oriented policing, as a strategy to prevent crime and deal with disorder.

I interviewed a high-ranking official from SLMPD to learn about the agency's priorities and organizational policies before and during the 2009-2013 study period. He explained that the primary focus of the department was decreasing violent crime and disorder. SLMPD developed and deployed a variety of task forces and specialized operations units to target certain crimes and problems, like street violent crime, gangs, and car break-ins. He contended that concerted drug enforcement efforts, like large-scale drug interdictions and buy/bust operations, were infrequent given the priority to fight violent crime. He mentioned that few buy/bust operations were deployed in response to residents' complaints about open-air drug crimes. Residents either complained directly to the police department or through elected officials, like the alderman.

Studies have found evidence of racial profiling in SLMPD's police traffic stops (Rojek, Rosenfeld, and Decker 2012; Rosenfeld, Rojek, and Decker 2012). Black motorists are more likely to be stopped by the police and once stopped, more likely to be searched than white motorists. Blacks are more likely to be searched after a stop in white neighborhoods, and whites are more likely to be searched after a stop in black neighborhoods (Rojek, Rosenfeld, and Decker 2012). When examining drug arrests, the focus of the dissertation, like most jurisdictions across the U.S., St. Louis has salient racial disparities in drug arrests. Figure 3.1 depicts race-specific drug arrest trends for St. Louis between 1960 and 2005. During this 45-year period, black drug arrests were always higher than those of whites and constituted most of the city's drug arrests. The figure also shows that the black-white gap in drug arrests has grown during the series.

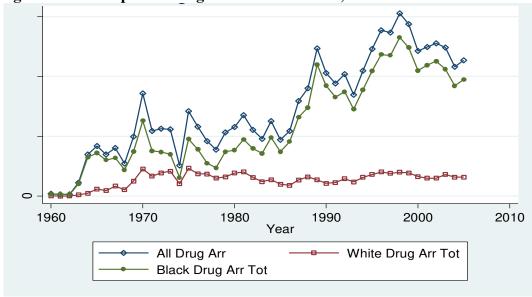


Figure 3.1 Race-Specific Drug Arrests in St. Louis, 1960-2005

Compiled by: Dr. Roland Chilton Data source: Bureau of Justice Statistics

This dissertation analyzes neighborhood-level drug arrests made by SLMPD during 2009-2013. These drug arrests comprise incidents for which the primary, most serious offense was drug possession, sale, or manufacturing. During the five-year study period, SLMPD officers made 14,395 nonviolent drug arrests across the city. As Figure 3.2 shows, blacks were overrepresented and whites were underrepresented in drug arrests. Although blacks made up 49% of the St. Louis resident population, they comprised 74% of drug arrestees. Whites made up 46% of the St. Louis resident population but accounted for only 26% of drug arrests. Put into a different perspective, black drug arrest rates (68.35 per 1,000 black residents) were more than two and half times greater than white drug arrest rates (26.22 per 1,000 white residents) during the time period⁴.

⁴I computed St. Louis' drug arrest counts, percentages, and rates using arrest data from the St. Louis Metropolitan Police Department, as discussed in the *Data* section of Chapter 4.

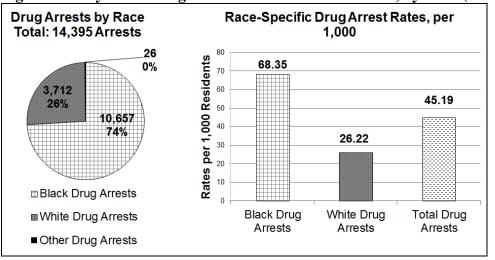


Figure 3.2 City-Level Drug Arrests in St. Louis 2009-2013, by Race (N = 14,395)

In light of the city's drastic population decline, marked racial segregation, high economic disadvantage, high violent crime rates, and longstanding racial disparities in drug arrests, St. Louis is ideally suited to the research question. St. Louis' social ills are a stark, dramatic form of conditions in other cities. Studying the racial disparity problem in St. Louis can demonstrate how neighborhood conditions can influence race-specific drug arrests in a city characterized by hyper-racial segregation and urban decay.

Chapter 4: Quantitative Component

The goal of the quantitative component of the dissertation is to assess whether neighborhood context can explain why blacks are overrepresented and whites are underrepresented as drug arrestees in St. Louis. Prior empirical studies on racial disparities in drug arrests focus on individuals (Mitchell and Caudy 2013; 2015) or larger geographic units such as cities (Beckett, Nyrop, and Pfingst 2006; Parker, Stults, and Rice 2005). Although those levels of analyses are informative in their own right, contextualizing an analysis of drug arrests within neighborhoods is important. Neighborhood contextual factors influence neighborhood crime and shape police behavior (Klinger 1997; Smith 1986). Moreover, findings from larger geographic units might not hold at the neighborhood level and likely mask differences in neighborhoods (Engel, Smith, and Cullen 2012). This chapter is devoted to the quantitative component of the dissertation. It describes the various data sources and measures used in the quantitative analysis. Then it discusses the analytic strategy and describes the variables before presenting results from the bivariate and multivariate analyses. This chapter concludes with a discussion of the findings.

DATA

For the quantitative analysis, I culled multiple pieces of neighborhood-level data to create a unique dataset. The dataset includes drug arrest data, violent and property crime data, and citizen calls for drug service data from the St. Louis Metropolitan Police Department (hereafter SLMPD) as well as neighborhood demographic data from the American Community Survey (hereafter ACS) via the St. Louis Planning and Urban Design Agency and fatal drug overdose data from the St. Louis Medical Examiner's

Office (hereafter SMEO). It should be noted that these neighborhood-level data are not publicly available and must be requested from the agencies. Under normal circumstances, these neighborhood-level data are hard to obtain. However, with the assistance and support of Dr. Richard Rosenfeld and Sherri Schaefer of SLMPD, I was able to request and obtain these restricted data from the agencies relatively seamlessly. This research is possible because of Dr. Rosenfeld and Sherri and the cooperation and generosity of the agencies. Moreover, the Institutional Review Board at the University of Missouri-St. Louis approved my use of the data and the research activities for this dissertation (Project #719568-1).

MEASURES

DRUG ARRESTS

Drug arrest data from SLMPD are used to construct the dependent variables. SLMPD records the number of aggregate and race-specific drug arrests officers make throughout St. Louis for drug possession and drug sale/manufacturing. This dissertation focuses on drug arrests made between 2009 and 2013 for which the primary offense—the most serious offense—was a drug crime. Thus, drug arrests involving a violent crime arrest are excluded. During the five-year period, 14,805 drug arrest incidents across the 78 neighborhoods met this criterion. Of those incidents, 14,395 (97%) contained addresses where the arrest occurred, resulting in only 3% of missing data. Arrests for drug possession comprise the vast majority of drug arrests (89%) whereas drug sale/manufacturing arrests makeup 11% of all drug arrests. To maintain the confidentiality of the data, SLMPD used Geographic Information Systems (GIS) to geocode these drug arrest incidents to their respective neighborhoods, removed addresses,

and provided aggregate and race-specific counts of total drug arrests, drug possession arrests, and drug sale/manufacturing arrests for each neighborhood⁵. Accordingly, the drug arrest data in the quantitative component are at the neighborhood level, do not contain addresses, and are not individual drug arrest incidents.

Black and white counts of total, possession, and sale/manufacturing drug arrests are the dependent variables, which are counts summed for the five-year period. The analysis examines drug arrest counts rather than drug arrest rates because St. Louis neighborhoods are highly racially segregated, which would produce inflated race-specific rates. To demonstrate this distortion, neighborhood #69 has 18 white residents (white resident population = 0%), but 144 white drug arrests occurred during the five-year period, translating to a white drug arrest rate of 8,000 per 1,000 white residents. Similar distortions exist across many St. Louis neighborhoods. Although researchers commonly log transform the rate outcome to help normalize the distribution and then estimate least squares regression models, this approach is inappropriate as it violates the assumptions of least squares regression and can pose analytical problems that lead to biased results. As such, this dissertation instead examines arrest counts and employs poisson-based analyses that adjust for the exposure risk, a suitable alternative (see Osgood 2000 for a discussion about these issues).

DRUG OVERDOSE DEATHS

Drug arrest measures reflect drug enforcement patterns, and they should not be mistaken for patterns of drug crime. To test differential drug involvement theory and

⁵The data cannot be portioned by drug type (e.g. marijuana, cocaine, crack, heroin, and methamphetamine) because this information is not systematically recorded in the arrest data and is missing from roughly half of these arrest incidents.

gauge neighborhood-level drug involvement, this research includes race-specific accidental drug overdose deaths (hereafter drug deaths) as a key independent variable. Researchers and agencies commonly use drug deaths, drug-related hospital visits, and comparable measures as indicators of drug involvement (Beckett, Nyrop, and Pfingst 2006; Galea et al. 2003; Martínez, Rosenfeld, and Mares 2008; SAMHSA 2013). Drug deaths represent the supply of and the demand for "hard drugs" in a given area. Thus, more drug deaths denote more drug involvement in neighborhoods.

The drug death data come from the SMEO which investigates deaths in St. Louis that occur under suspicious or unusual circumstances. Drug deaths represent the number of accidental deaths caused by illegal drug use or drug toxicity, most involving cocaine or heroin alone or combined with other illegal drugs. Drug deaths are coded according to the address where the death occurred. Although the location of drug acquisition is unknown, the location of death is a reasonable indicator of the spatial distribution of drug involvement (Martínez, Rosenfeld, and Mares 2008). Moreover, drug deaths are better indicators of hard drug use than marijuana use and reflect drug possession more than drug sale/manufacturing. However, hard drugs are expected to lead to an arrest more than marijuana, and drug possession accounts for 89% of all drug arrests during the study period.

Despite being an imperfect measure, the drug death rate is a more valid indicator of drug involvement than drug arrests. Drug arrests are likely riddled with endogeneity bias because, as this dissertation hypothesizes, police patrol urban neighborhoods with high levels of violence more heavily than other areas, increasing the risk of drug arrests in violent-prone neighborhoods. Drug arrests also likely reflect racially-biased policing

practices as studies show that blacks are overrepresented as drug arrestees when compared to the racial composition of drug offenders in surveys or qualitative data (Beckett, Nyrop, and Pfingst 2006; Mitchell and Caudy 2013; Mitchell and Lynch 2011; Mosher 2001). Thus, drug deaths overcome these sources of bias because police enforcement likely has no impact on drug deaths. Moreover, the drug death data likely capture the less-visible drug involvement that occurs indoors away from direct observation that drug arrest data likely miss (Mosher 2001). For these reasons, the drug death measure provides a reasonable estimate of drug involvement.

The SMEO protected the confidentiality of the data by geocoding addresses to their respective neighborhood, removing those addresses, and providing aggregate and race-specific drug death counts for each neighborhood before providing the drug death data. As such, the drug death data in this study are at the neighborhood level, do not contain addresses, and are not individual drug death incidents. Between years 2009 and 2013, 339 illegal drug overdose deaths occurred across St. Louis. The white drug death rate and black drug death rate are computed for each neighborhood by summing the total number of drug deaths for each race during the five-year period, dividing it by the neighborhood's population size for each race, and multiplying by 1,000.

Equitable drug enforcement should be a function of drug involvement; areas with high drug death rates should have more drug arrests as areas with low drug death rates should have fewer drug arrests. Differential drug involvement theory suggests that predominately black neighborhoods have more drug involvement than predominately white neighborhoods, and these differences in drug involvement explain racial disparities in drug arrests. A simple examination of the descriptive parameters will reveal whether

drug death rates vary significantly across racially-characterized neighborhoods and by decedent's race. Further testing differential drug involvement theory, the multivariate analysis will investigate whether each group's arrest is a function of its race-specific drug death rate. If drug enforcement is equitable and officers are truly responding to drug involvement when arresting suspects, then the race-specific drug death rate will be a significant predictor of drug arrests.

VIOLENT AND PROPERTY CRIME

Violent and property crime rates are included because, as differential scrutiny theory contends, police deployment tends to be concentrated in crime-ridden neighborhoods, thus increasing police scrutiny and the risk for drug arrest of frequenters in those areas. In addition, violent crime is closely related to drug activity (Baumer et al. 1998; Martínez, Rosenfeld, and Mares 2008), making it an important variable in the study. SLMPD provided violent and property crime counts for each neighborhood between years 2009 and 2013. These are crimes known to the police regardless of arrest and are the same data SLMPD reports to the FBI's Uniform Crime Report for city-level crime in St. Louis. Violent crime includes aggravated assaults, robberies, rapes, and murders. Property crime includes larcenies, burglaries, auto thefts, and arsons. Violent crime rates and property crime rates are computed, separately, by summing the total number of crimes during the five-year period, dividing it by the neighborhood's population size, and multiplying by 1,000.

Differential scrutiny theory posits that differences in crime rates across neighborhoods explain racial disparities in drug arrests. Police agencies allocate resources based on reported crime so that neighborhoods with more crime problems—

especially violent crime problems—have a greater police presence. Coupled with the heightened presence of officers in disadvantaged, crime-prone neighborhoods is the visible, violent nature of drug markets in such areas. Thus, neighborhood crime, especially violence, might play a role in producing racial disparities in drug arrests. A simple examination of the descriptive parameters will determine whether violent and property crime rates vary significantly by racially-characterized neighborhoods, as numerous studies have already demonstrated. The multivariate analysis will further investigate differential scrutiny theory by testing whether violent and property crime rates predict drug arrests. If differential scrutiny theory is valid, crime rates, especially violent crime rates, will significantly predict drug arrests. Statistically significant racial differences in the effect of crime on drug arrests would be evidence that differential scrutiny theory explains the racial disparity problem.

CITIZEN CALLS FOR DRUG SERVICE

In addition to crime rates, differential scrutiny theory highlights the role citizens play in shaping law enforcement practices. Police agencies rely on citizen calls for service just as they rely on crime rates to determine where and how to deploy officers and resources. Moreover, when citizens make emergency calls to the 911 dispatch, officers are required to respond. Differential scrutiny theory suggests that disadvantaged, crime-prone neighborhoods where blacks are more likely to frequent have numerous citizen calls for service, another factor that increases police presence in those areas. As such, this dissertation research includes two measures of calls for drug service.

Calls for drug service are conceptualized as two separate measures at the neighborhood level between 2009 and 2013: suspicious drug calls and drug hotline calls⁶. Suspicious drug calls comprise all of the calls citizens made to the 911 center reporting a suspicious person possibly using, selling, or manufacturing drugs. The dispatcher records the call information, categorizes the call as "suspicious person-drugs" based on the information, and sends it over the radio to beat officers who then respond to the reported incident. Thus, officers responded to all suspicious drug calls, which may or may not have led to an arrest. On the other hand, drug hotline calls are calls citizens made to SLMPD's Secret Witness Hotline⁷ to anonymously report drug activity, including the use, sale, or production of illegal substances. The hotline operator tries to obtain as much information about the drug activity as possible, but the minimum requirement is the location of the drug crime. SLMPD treats drug hotline calls as tips, so officers did not respond to all tips. In fact, according to personnel from SLMPD, only a small percentage of the tips were investigated by officers. The suspicious drug calls measure is a conventional indicator of calls for service in criminological research (Engel, Smith, and Cullen 2012; Klinger and Bridges 1997). Nevertheless, the drug hotline calls offer an additional source of information about drug crime.

SLMPD provided data on suspicious drug calls and drug hotline calls as counts of all citizen calls made between 2009 and 2013 for each neighborhood. During the time period, there were 22,687 suspicious drug calls and 3,769 drug hotline calls across St.

⁶The drug hotline calls measure has a partial count for year 2009, which starts on June 9, 2009, due to a transition in record keeping systems.

⁷View the website at http://www.slmpd.org/anonymous tips.shtml.

Louis. Neighborhood-level rates per 1,000 residents are computed for each measure by summing the counts for the five years, dividing by the total population size, and multiplying by 1,000. Unfortunately, callers did not always report the race of the suspect and when they did, dispatchers did not systematically report it in the calls for service data. Therefore, suspect's race is unavailable, and race-specific calls for drug service measures cannot be computed.

It is important to note that calls for drug service represent citizen complaints about drug activity and are not valid estimates of the distribution of drug crime. This is because calls for drug service capture only a subset of drug crimes and are biased by many factors, such as citizens' willingness to call the police, the possible inaccuracy of the callers' information about the legal nature of events, and discrepancies between what callers report versus what call-takers record based on their interpretation of the information (Klinger and Bridges 1997). Moreover, citizens stereotype blacks as suspicious or criminal. These stereotypes influence their perceptions of neighborhood problems (Quillian and Pager 2001; Sampson and Raudenbush 2004) and are likely reflected in their requests for police services. In racially segregated places like St. Louis, the effect of race on the reporting of crimes to the police is likely strong (Xie and Lauritsen 2012). In addition, citizen calls likely capture visible drug activity rather than hidden drug crimes. To this end, this dissertation includes calls for drug service measures not as proxies for drug involvement but as measures of citizens' requests for police services that likely shape drug enforcement practices.

An examination of the descriptive parameters will reveal whether calls for drug service vary significantly across racially-characterized neighborhoods. The multivariate

models will include suspicious drug calls and drug hotline calls, separately, to assess whether calls for drug service are related to drug arrests. If drug enforcement is driven by calls for service, as differential scrutiny theory suggests, and officers are responding to citizen complaints, then the models will show calls for service to be a significant predictor of drug arrests. Moreover, if the effect of calls for drug service varies significantly between white and black arrestees, then citizen calls for drug service will explain the racial disparity in drug arrests.

NEIGHBORHOOD DEMOGRAPHICS

Research consistently reports that neighborhood context is related to neighborhood crime (Baumer 1994; Martínez, Rosenfeld, and Mares 2008; McCarthy 1991; Sampson and Wilson 1995) and influences policing practices (Fagan and Davies 2000; Klinger 1997; Quillian and Pager 2001; Smith 1986). Thus, this dissertation includes a host of neighborhood demographic data from the ACS as independent variables. The ACS provided several measures capturing dimensions of social disorganization (e.g. population heterogeneity, residential instability, economic disadvantage) that are related to crime. These data are for years 2008-2012 and include population size, racial composition, percentage of renters, and several indicators of economic disadvantage.

Population Size

Population size is included as a measure of population density, which can influence neighborhood conditions, neighborhood crime, and enforcement practices (e.g. beat size). The ACS provided raw counts of the total number of residents and the number of black and white residents in every neighborhood for each of the five years. These

counts are averaged over the five-year period to produce annual average counts of total and race-specific population sizes.

Racial Composition

Racial composition is included because of its relevance to the research question, relevance to racially-biased policing theory, and significant relationship with perceptions of neighborhood problems (Chiricos, McEntire, and Gertz 2001; Novak and Chamlin 2012; Quillian and Pager 2001; Stewart et al. 2009). Racial composition is expressed as the annual average percentage of black residents and white residents in each neighborhood during the five-year period. In addition to their use in the quantitative analysis, I use these racial composition measures to racially-characterize neighborhoods as either black neighborhoods (>75% of population is black), white neighborhoods (>75% of population is white), or mixed neighborhoods (<76% black and <76% white) throughout this dissertation. To consider the propositions of racially-biased policing theory, the multivariate analysis will assess whether neighborhood racial composition, expressed as the percentage of black residents in a neighborhood, significantly predicts drug arrests. Racially-biased policing will be evidenced if percent black predicts drug arrests when controlling for legal, race-neutral factors such as crime and the drug death rate. Racial composition will explain the racial disparity problem if its effect significantly differs between white and black arrestees.

Percentage of Rented Housing Units

This dissertation research accounts for residential instability by measuring the percentage of rented housing units, a common indicator of residential instability in social disorganization research (Krivo and Peterson 1996; Martínez, Rosenfeld, and Mares

2008). A greater presence of owned housing units indicates that residents are less likely to move and more likely to be economically and socially invested in the neighborhood. Conversely, a higher presence of renters in neighborhoods denotes residential instability as renters are more likely to move. Residential instability is hypothesized to disrupt neighborhood organization, social networks, and social cohesion needed to safeguard against neighborhood crime (Kornhauser 1978; Shaw and McKay 1942). Percentage of rented units is computed as the annual average percentage of rented housing units in each neighborhood during the five-year period.

Economic Disadvantage

Moreover, the ACS provided several measures of economic disadvantage, expressed as percentages, including: homes under the city's median income of \$35,000, unemployed population, residents with less than a high school education, single mother households with minor children, population below age 18, and vacant units. I computed the annual average percentage of each measure during the five-year period and indexed them into an economic disadvantage measure using orthogonal oblique rotation factor analysis. The variables loaded well on a single factor, and the index has an alpha of .89.

ANALYTIC STRATEGY

Analyses for the quantitative component begin by examining the descriptive parameters for St. Louis neighborhoods and the extent of racial disparities in drug arrests. During this stage, I also compare the descriptive parameters between racially-characterized neighborhoods (e.g. predominately black, white, and mixed neighborhoods) and perform a series of t-tests to assess whether the means of the measures vary

significantly across neighborhood types. Then, I inspect bivariate correlations among the variables used in this research and perform diagnostic tests.

The multivariate analysis employs count-based regression models to investigate whether neighborhood contextual factors explain the overrepresentation of blacks and the underrepresentation of whites as drug arrestees. Similar to prior studies that use count outcomes and explain racial disparities in arrests or crime (Ousey 1999; Parker and Maggard 2005), I estimate separate models for black drug arrests and white drug arrests and then test the equality of the coefficients across models. The race-specific dependent variables include: total drug arrests, drug possession arrests, and drug sale/manufacturing arrests for white arrestees and black arrestees. The independent variables include: racespecific drug death rate, violent crime rate, property crime rate, economic disadvantage, rented housing units, percent black, and separate measures of citizen calls for drug service (suspicious drug calls rate and drug hotline calls rate). Each outcome is regressed onto the theoretically-relevant predictors. Race-specific population size is included as the exposure variable (i.e. white population size in the white drug arrest models and black population size in the black drug arrest models), thus transforming the count models into an analysis of rates of race-specific drug arrests (Osgood 2000). Including the racespecific population size as the exposure variable accounts for the population at risk for arrest as well as for variations in population size across neighborhoods. Additionally, the negative binomial models use robust standard errors for the clustering of observations within neighborhoods. Because the suspicious drug calls rate and drug hotline calls rate capture the same construct and are strongly correlated (r = .71, p < .05), each measure is

estimated in separate models in order to avoid model misspecification and to understand how each measure is related to drug enforcement.

Estimating separate models for white and black arrests will reveal whether neighborhood-level predictors are related to the risk for drug arrest for each group. Going a step further, I test whether the effect of the predictors varies significantly between white and black drug arrestees. Because white and black drug arrests come from the same neighborhoods, it is possible that the error terms in the regression equations are correlated. Seemingly unrelated regression (SUR) post estimation is a technique that can account for cross-equation correlations in error terms, allowing for comparisons of coefficients across models that stem from the same units (Greene 2011; Ousey 1999; Parker, Stults, and Rice 2005). The *suest* command in STATA allows the testing of SUR. To employ SUR, I estimate each negative binomial model, store the estimates of both models, and run the *suest* command in STATA to test for the equality of coefficients across the white and black drug arrest models.

THEORETICAL HYPOTHESES

The quantitative analyses test the tenets of differential drug involvement, differential scrutiny, and racially-biased policing theories. Differential drug involvement theory attributes racial disparities in drug arrests to higher rates of drug involvement in black neighborhoods than white neighborhoods. If there are racial and neighborhood differences in drug involvement, then the univariate analysis will show that the black drug death rate is significantly higher than the white drug death rate and that the drug death rate is significantly higher in black neighborhoods than in white neighborhoods. If differential drug involvement explains racial disparities in drug arrests, then the

multivariate analysis will show that the drug death rate has a significantly stronger effect on black drug arrests than white drug arrests.

Differential scrutiny theory argues that higher rates of violent crime and citizen calls for drug service attract police to disadvantaged neighborhoods where blacks are more likely to frequent. If this is true, the univariate analysis will show significantly higher violent crime rates and citizen calls for drug service in predominately black neighborhoods than in white neighborhoods. If differential police scrutiny explains racial disparities in drug arrests, then violent crime rates and measures of citizen calls for drug service (e.g. suspicious drug calls rates and drug hotline calls rates) will have a significantly stronger effect on black drug arrests than white drug arrests.

Finally, the multivariate analysis will consider racially-biased policing theory by assessing the relationship between racial composition—measured as the percentage of black residents—and race-specific drug arrests. Fair, equitable drug enforcement should be a function of drug involvement and not extralegal factors like racial composition. As such, racially-biased policing will be evidenced if racial composition is significantly related to drug arrests, controlling for the drug death rate, violent and property crime, and relevant covariates. Racial threat will be evidenced if increases in the percentage of black residents are associated with higher black drug arrests (Percent Black \rightarrow + Black Drug Arrests), especially in white or mixed neighborhoods. A negative association between percent black and black drug arrests (Percent Black \rightarrow - Black Drug Arrests) can indicate support for either the benign neglect or defended neighborhoods hypothesis.

DESCRIPTIVE PARAMETERS

Descriptive information on the 78 neighborhoods is presented in Table 4.1. In the average neighborhood, officers arrest more black suspects than white suspects. For total drug arrests, officers make 136.56 black drug arrests (SD = 171.61) and 47.50 white drug arrests (SD = 56.81). Stated differently, officers make nearly 4 black drug arrests for every one white drug arrest in the average neighborhood (mean = 3.78; SD = 3.69), and this disparity ratio ranges from .14 to 15.6 across neighborhoods. Similarly, the average black drug possession arrest count is 117.54 (SD = 147.99) compared to the average white drug possession arrest count of 45.87 (SD = 54.97), a ratio of more than 3 black drug arrests for every white drug arrest (mean = 3.39, SD = 3.30). The racial disparity in drug arrests for sale or manufacturing is even greater. Officers arrest 19.03 black suspects (SD = 24.41) and 1.63 white suspects (SD = 2.52) for drug sale/manufacturing in the average neighborhood.

The average neighborhood has a black drug death rate of 1.04 (SD = 1.73) and a white drug death rate⁸ of 7.37 (SD = 21.71). A calculation of a t-test of difference in means shows that the white drug death rate is significantly higher than the black drug death rate (t = -2.54, p < .05, two-tailed test), an initial finding that refutes differential drug involvement theory's assertion that blacks are more involved in drugs than whites. The drug death rates are highly skewed in their original metric. To reduce skewness, I log-transformed the drug death rates by computing the natural log of the rate, plus a constant of 1, before entering them into the multivariate models ($\ln(\text{variable} + 1)$).

⁸One case was removed from the calculation of the mean due to an inflated white drug death rate of 1,000 per 1,000 white residents in neighborhood #53. Including this case would have produced an average white drug death rate of 20.10 (SD = 114.44) for the population of neighborhoods.

Table 4.1 Descriptive Parameters for Population of Neighborhoods $(N = 78)$							
•	Mean	SD	Min	Max			
Dependent Variables (5-year sums)							
Black Total Arrest Count	136.56	171.61	1	866			
White Total Arrest Count	47.50	56.81	0	296			
Black-White Disparity	3.78	3.69	0.14	15.6			
Black Possession Arrest Count	117.54	147.99	1	751			
White Possession Arrest Count	45.87	54.97	0	285			
Black-White Disparity	3.39	3.30	0.13	13.8			
Black Sale/Mftg Arrest Count	19.03	24.41	0	115			
White Sale/Mftg Arrest Count	1.63	2.52	0	14			
Black-White Disparity	10.27	12.01	0	56			
Independent Variables							
Black Drug Death Rate, per 1,000 black residents (5-year sum) ⁺	1.04	1.73	0	12.05			
White Drug Death Rate, per 1,000 white residents (5-year sum) ^{+, 1}	7.37	21.71	0	136.36			
Violent Crime Rate, per 1,000 population (5-year sum)	107.80	71.01	11.83	277.30			
Property Crime Rate, per 1,000 population (5-year sum)	437.82	246.77	147.41	1667.17			
Population Size (5-year average)	4083.67	3233.58	323	16249			
Black Population Size	1998.95	1829.05	46	8753			
White Population Size	1815.32	2452.88	1	9425			
Racial Composition (5-year average)							
% Black Population	0.56	0.34	0.02	1.00			
% White Population	0.40	0.33	0	0.96			
Economic Disadvantage Index ($\alpha = .89$) (5-year averages)							
% Homes Under City's Median Income	0.54	0.15	0.26	0.76			
% Unemployed	0.16	0.09	0.03	0.43			
% Low Education (< HS)	0.19	0.09	0.01	0.43			
% Single Mom Homes	0.12	0.09	0.01	0.43			
% Youthful Population	0.22	0.08	0.06	0.42			
% Vacant Units	0.22	0.10	0.05	0.43			
Percentage of Rented Housing Units (5-year average)	0.57	0.17	0.20	0.93			
Suspicious Drug Calls Rate, per 1,000 population (5-year sum) ⁺	81.22	75.93	0	385.66			
Drug Hotline Calls Rate, per 1,000 population (5-year sum) ⁺	11.48	8.98	0	34.38			

⁺Descriptive parameters for variable are in the original metric; variable is log transformed in the multivariate analysis

¹One case is omitted from the calculation of mean due to a very high white drug death rate of 1,000 per 1,000 whites

The average neighborhood has a five-year violent crime rate of 107.80 per 1,000 residents (SD = 71.01) and a five-year property crime rate of 437.82 per 1,000 residents (SD = 246.77). The average neighborhood has a population size of a little over 4,000 residents (SD = 3233.58), which ranges between 323 and 16,249 residents across neighborhoods. The average black population size and white population size, respectively, is roughly 2,000 residents (SD = 1829.05) and 1,815 residents (SD = 1829.05) 2452.88). Racial composition is expressed as the percentage of black residents and percentage of white residents in each neighborhood. In the average neighborhood, 56% of residents are black (SD = .34), which ranges between 2% and 100% across neighborhoods, and 40% of residents are white (SD = .33), a range between 0% and 96%. These ranges indicate that some St. Louis neighborhoods are virtually all black or all white. Categorizing the neighborhoods according to their racial composition (not shown in table) reveals that 40% are predominately black neighborhoods (N = 31), and 23% are predominately white neighborhoods (N = 18). Stated differently, 63% of St. Louis neighborhoods are racially segregated while 37% are racially heterogeneous.

A proxy for neighborhood instability, in the average neighborhood, 57% of housing units are rented (SD = .17). Moreover, several measures used to compute the economic disadvantage index are presented as percentages in Table 4.1. These include: home under the city's median income of \$35,000 (mean = 54%; SD = .15), unemployed population (mean = 16%; SD = .09), residents with less than a high school education (mean = 19%; SD = .09), single mother households with minor children (mean = 12%; SD = .09), population below age 18 (mean = 22%; SD = .08), and vacant units (mean = 22%; SD = .10). Finally, the average rate of suspicious drug calls is 81.22 (SD = 75.93),

and the average rate of drug hotline calls is 11.48 (SD = 8.98), both per 1,000 residents. The distributions of rates for suspicious drug calls and drug hotline calls were skewed, so I log-transformed the variables by computing the natural log of each variable, plus a constant of 1, before including them in the multivariate models (ln(variable + 1)).

RACIALLY-CHARACTERIZED NEIGHBORHOODS

Neighborhood characteristics vary by racial composition (Sampson and Wilson 1995; Sampson, Morenoff, and Gannon-Rowley 2002), and the theories that guide this research suggest the need to understand the conditions of racially-characterized neighborhoods. As such, Table 4.2 presents means of the before-mentioned measures for white neighborhoods (N = 18), black neighborhoods (N = 31), and mixed neighborhoods (N = 29). To assess whether any visible differences in means are statistically meaningful, I conducted a series of two-sample t-tests that compare the variable means between white and black neighborhoods, white and mixed neighborhoods, and black and mixed neighborhoods. There are noteworthy differences across racialized neighborhoods.

All three measures of black drug arrests (e.g. total, possession, sale/manufacturing) are significantly higher in black neighborhoods and mixed neighborhoods than in white neighborhoods. To illustrate, the average black total drug arrest count is 199.87 in black neighborhoods and 141.83 in mixed neighborhoods compared to 19.06 in white neighborhoods. However, this difference in drug arrest risk across racially-characterized neighborhoods is not apparent for whites, as the white drug arrest counts are statistically similar across racially-characterized neighborhoods. The only exception is the white drug sale/manufacturing count is significantly higher in white

Table 4.2 Mean Differences of Characteristics across Racially-Characterized Neighborhoods (*N* = 78 neighborhoods)

Neighborhoods ($N = 78$ neighborhoods)			
Variables	White	Black	Mixed
	N'hoods	N'hoods	N'hoods
	(N = 18)	(N = 31)	(N = 29)
Dependent Variables (5-year sums)			
Black Total Arrest Count	$19.06^{2;3}$	199.87 ¹	141.83^{-1}
White Total Arrest Count	34.28	42.71	60.83
Black-White Disparity	$0.67^{2;3}$	$6.15^{1;3}$	$3.14^{-1;2}$
Black Possession Arrest Count	16.56 ^{2; 3}	172.74^{-1}	121.21^{-1}
White Possession Arrest Count	32.11	42.03	58.52
Black-White Disparity	$0.66^{2;3}$	$5.42^{1;3}$	$2.88^{1;2}$
Black Sale/Mftg. Arrest Count	$2.50^{2;3}$	27.13^{1}	20.62^{-1}
White Sale/Mftg. Arrest Count	2.17^{2}	$0.68^{1;3}$	2.31^{-2}
Black-White Disparity	$0.85^{2;3}$	$20.73^{1;3}$	8.72 1; 2
Independent Variables			
Total Drug Death Rate (5-year sum)	0.81	1.35	1.06
Black Drug Death Rate (5-year sum) ⁺	1.48	0.90	0.92
White Drug Death Rate (5-year sum) ^{+, X}	$0.85^{\ 2}$	17.14 ^{1; 3}	1.31 2
Violent Crime Rate (5-year sum)	30.94 ^{2; 3}	$162.89^{1;3}$	96.60 ^{1; 2}
Property Crime Rate (5-year sum)	274.57 ^{2; 3}	468.39 ¹	506.48 ¹
Population Size (5-year average)	4,991.39 ²	$3,158.71^{-1}$	4,509.00
% Black Population (5-year average)	9% 2; 3	92% 1; 3	46% 1; 2
% White Population (5-year average)	87% ^{2; 3}	$6\%^{1;3}$	47% ^{1; 2}
Economic Disadvantage Index (5-year			
averages)			
% Homes Below Median Income	$37\%^{2;3}$	67% ^{1; 3}	51% ^{1; 2}
% Unemployed	8% ^{2; 3}	$23\%^{1;3}$	17% ^{1; 2}
% Low Education (< HS)	12% 2	25% ^{1; 3}	$16\%^{-2}$
% Single Mom Homes	$4\%^{2;3}$	$18\%^{1;3}$	$11\%^{1;2}$
% Youthful Population	$16\%^{2;3}$	$26\%^{1;3}$	$21\%^{1;2}$
% Vacant Units	$12\%^{2;3}$	$27\%^{-1;3}$	$22\%^{1;2}$
Percentage of Rented Housing Units (5-	$42\%^{2;3}$	58% ¹	$65\%^{-1}$
year average)			
Suspicious Drug Calls Rate (5-year	15.39 ^{2; 3}	130.66 ^{1; 3}	69.23 ^{1; 2}
sum) ⁺			
Drug Hotline Calls Rate (5-year sum) ⁺	6.06^{2}	15.62 ^{1; 3}	$10.42^{\ 2}$

two-sample t-test; $p \le .05$ (two-tailed tests)

 $^{1 = \}text{sig differ from white n'hoods } 2 = \text{sig differ from black n'hoods } 3 = \text{sig differ from mixed n'hoods}$

⁺Descriptive parameters for the variable are in the original metric; variable is log transformed in the multivariate analysis

^XOne case is omitted from the calculation of mean due to a very high white drug death rate of 1,000 per 1,000 white residents

neighborhoods (mean = 2.17) and mixed neighborhoods (mean = 2.31) than in black neighborhoods (mean = .68). Additionally, the black-to-white disparity ratio for total drug arrest, drug possession arrest, and drug sale/manufacturing arrest is significantly higher in black neighborhoods (means of 6.15, 5.42, and 20.73, respectively) than in white neighborhoods (means of .67, .66, and .85, respectively) and mixed neighborhoods (means of 3.14, 2.88, and 8.72, respectively). Disparity ratios in mixed neighborhoods are significantly higher than those in white neighborhoods. Part of the racial difference in drug arrests across racially-characterized neighborhoods is a function of the race-specific population size. For example, most of the residents in black neighborhoods are black, so black arrests are expected to be higher there than in white neighborhoods. However, with the exception of drug sale/manufacturing arrests, which make up only 11% of all arrests, white arrests are not higher in white neighborhoods than in black or mixed neighborhoods, as expected. This could be indicative of officers under-enforcing drug laws in white neighborhoods. Moreover, in mixed neighborhoods where the white and black population sizes are split nearly evenly, it is noteworthy that blacks face a higher risk for drug arrest than whites. Together, these data reveal variations in drug enforcement across racially-characterized neighborhoods.

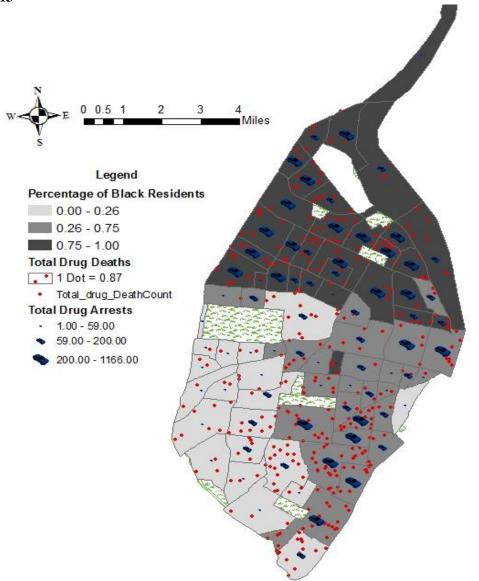
In addition, the data revealed no significant differences in the black drug death rate across the neighborhood types, although the white drug death rate is significantly higher in black neighborhoods (mean = 17.14) than in white neighborhoods (mean = .85) and mixed neighborhoods (mean = 1.31). In other words, the black drug death rate appears to occur evenly across racialized neighborhoods whereas the white drug death rate appears to be higher in black neighborhoods. An analysis of the total drug death rate

(black and white drug death counts divided by total population size and multiplied by 1,000), shows that the overall drug death rate does not vary significantly across neighborhoods. Furthermore, there are significant differences in violent and property crime rates across neighborhoods. Black neighborhoods have significantly higher violent crime rates (mean = 162.89) that are five times greater than rates in white neighborhoods (mean = 30.94) and nearly two times greater than rates in mixed neighborhoods (mean = 96.60). Violent crime rates are significantly higher in mixed neighborhoods than in white neighborhoods. Property crime rates in mixed neighborhoods (mean=506.48) and black neighborhoods (mean = 468.39) are significantly higher than those in white neighborhoods (mean = 274.57). These differences in crime rates across neighborhoods are consistent with part of differential scrutiny theory which suggests that violent crime, in particular, is higher where blacks are more likely to live. Also consistent with part of differential scrutiny theory, rates of citizen calls for drug service vary across raciallycharacterized neighborhoods. Both the suspicious drug calls rate and the drug hotline calls rate are significantly higher in black neighborhoods (means of 130.66 and 15.62, respectively) than in mixed neighborhoods (means of 69.23 and 10.42, respectively) and white neighborhoods (means of 15.39 and 6.06, respectively). The suspicious drug calls rate is also significantly higher in mixed neighborhoods than in white neighborhoods.

Residential instability, measured as the percentage of rented housing units, is significantly greater in mixed and black neighborhoods (means of 65% and 58%, respectively) than in white neighborhoods (mean = 42%). Additionally, all measures of economic disadvantage show that black neighborhoods are plagued with significantly greater economic disadvantage than white neighborhoods and mixed neighborhoods.

With the exception of low educational attainment, indicators of economic disadvantage show that mixed neighborhoods are significantly more economically distressed than white neighborhoods.

Figure 4.1 Racial Composition, Drug Arrests, and Drug Deaths across St. Louis N'hoods, 2009-2013



To visually depict some neighborhood characteristics, I used GIS to map racial composition, total number of drug deaths, and total number of drug arrests. Figure 4.1 shows a map of St. Louis divided into the 78 neighborhoods. Racial composition is

denoted by the white-to-black grayscale: white-colored areas represent white neighborhoods, light gray-colored areas represent mixed neighborhoods, and dark gray-colored areas represent black neighborhoods. Total drug deaths are denoted by red dots; more red dots indicate more drug deaths. Total drug arrests—a sum of white and black arrests—are denoted by a blue car; larger blue cars indicate more drug arrests.

The map provides a striking visual depiction of differences in characteristics across neighborhoods. Echoing the before-mentioned descriptive parameters, the map shows that St. Louis neighborhoods are highly racially segregated. Even more salient is the spatial distribution of these segregated neighborhoods: the entire northern part of St. Louis is comprised of black neighborhoods, the entire southwestern part is comprised of white neighborhoods, and mixed neighborhoods are in between. In other words, not only are most St. Louis neighborhoods racially segregated, the entire St. Louis city is divided by race. Moreover, the map shows that drug deaths—proxies for drug involvement occur throughout the city in no clear clustering or pattern, but drug enforcement is concentrated in black neighborhoods and some mixed neighborhoods and is very low in white neighborhoods. An examination of the raw drug arrest counts reveals that, of the 14,395 drug arrests during the five-year period, only 964 (7%) occurred in white neighborhoods compared to 7,531 (52%) in black neighborhoods and 5,900 (41%) in mixed neighborhoods. Stated differently, nearly all—93%—of drug arrests occurred outside of white neighborhoods despite the even distribution of drug deaths across the city. Low drug enforcement in white neighborhoods likely contributes to the underrepresentation of whites in drug arrests and the racial gap in drug arrests.

Table 4.2 and Figure 4.1 reveal important differences between racially-characterized neighborhoods. First, there are no statistically significant differences in overall drug deaths by neighborhood type. Second, though drug offending is not significantly different across racially-characterized neighborhoods, drug enforcement varies significantly by arrestees' race across racially-characterized neighborhoods. Third, black neighborhoods and mixed neighborhoods have significantly higher violent and property crime rates and calls for drug service than white neighborhoods. Elevated crime and citizen complaints in these areas might attract greater police deployment and subsequently, more drug enforcement, as differential scrutiny theory predicts. Lastly, black and mixed neighborhoods experience significantly more residential instability and economic disadvantage than white neighborhoods. These descriptive differences across racially-characterized neighborhoods will inform subsequent analyses that seek to explain racial disparities in drug arrests.

BIVARIATE RESULTS

Table 4.3 presents bivariate correlations among the variables in the quantitative analysis, many which are statistically significant. First focusing on the correlates of drug arrests, correlations between the six race-specific drug arrest outcomes have a positive, moderate to strong correlation with one another (r between .33 and .99, p < .05). Additionally, the black and white drug death rates are not significantly correlated with either of the race-specific drug arrest outcomes, except the white drug death rate is positively correlated with the black drug sale/manufacturing arrest outcome (r = .23, p < .05). Violent crime is positively correlated with drug arrests for both groups but is strongly related to black total drug arrest (r = .62, p < .05), black drug possession arrest (r = .62, p < .05), black drug possession arrest (r = .62)

= .62, p < .05), and black drug sale/manufacturing arrest (r = .61, p < .05) and moderately related to white total drug arrest (r = .27, p < .05) and white drug possession arrest (r = .27, p < .05).28, p < .05). Property crime is positively correlated with total, possession, and sale/manufacturing arrests for blacks (r = .41, .41,and .42,respectively, p < .05) and total and possession arrests for whites (r = .38 and .38, respectively, p < .05). Neither violent crime nor property crime is significantly related to white drug sale/manufacturing arrest. Population size is positively correlated with the six outcomes but is strongly correlated with white total, possession, and sale/manufacturing arrests (r = .50, .49, and .42,respectively, p < .05) and moderately correlated with black total, possession, and sale/manufacturing arrests (r = .27, .27,and .28, respectively, p < .05). Percentage of black residents is positively and strongly correlated with increases in total, possession, and sale/manufacturing drug arrests for blacks (r = .42, .43, and .39, respectively, p < .43, and .39, and .3.05). On the other hand, the percentage of black residents is unrelated to total and possession drug arrests for whites but is negatively and moderately related to white sale/manufacturing arrests (r = -.28, p < .05). Economic disadvantage is positively correlated with total, possession, and sale/manufacturing drug arrests for blacks (r = .35, .35, and .32, respectively, p < .05) but is unrelated to the three white drug arrest outcomes. Percentage of rented housing units is moderately correlated with black total and possession arrests (r = .24 and .25, respectively, p < .05), although it is not significantly correlated with black sale/manufacturing arrest or any of the white drug arrest outcomes. More citizen calls for drug service, by both measures, are related to increases in black drug arrests but not white drug arrests. Specifically, the suspicious drug calls rate is strongly correlated with total, possession, and sale/manufacturing drug

arrests for blacks (r = .49, .49, and .51, respectively, p < .05). The drug hotline calls rate has a correlation of .33 (p < .05) with each of the black drug arrest outcomes.

In addition to correlations between drug arrests and the predictor variables, there are many other significant correlations worth mentioning. Violent crime is not significantly correlated with the black drug death rate, although violent crime is positively related to the white drug death rate (r = .46, p < .05), property crime (r = .62, p < .05)< .05), percentage of black residents (r = .75, p < .05), economic disadvantage (r = .68, p < .05) < .05), percentage of rented housing units (r = .36, p < .05), suspicious drug calls (r = .76, p < .05), and drug hotline calls (r = .47, p < .05). In addition to being positively associated with black drug arrests and violent crime, the percentage of black residents is positively associated with increases in the white drug death rate (r = .39, p < .05), but not the black drug death rate, as well as increases in economic disadvantage (r = .85, p < .00).05), percentage of rented housing units (r = .28, p < .05), suspicious drug calls (r = .75, p = .05)< .05), and drug hotline calls (r = .45, p < .05). In addition to being positively associated with black drug arrests, violent crime, and percentage of black residents, economic disadvantage is positively and strongly correlated with the white drug death rate (r = .43, p < .05), but not the black drug death rate, suspicious drug calls (r = .67, p < .05), and drug hotline calls (r = .48, p < .05). Economic disadvantage and percentage of rented housing units are also positively correlated (r = .28, p < .05).

Table 4.3 Correlation Matrix of Variables in the Quantitative Analysis $(N = 78)$	of Va	riables	in the	e Qua	ntitati	e An	alysis (N=7	<u>~</u>										
	_	7	~	4	S	9	7	∞	6	2	=	12	13	14	13	16	11	≈	120
 Black Total Arrest Count 	-																		
White Total Arrest Count	*99	_																	
Black Poss. Arrest Count	*66	* 59:	_																
White Poss. Arrest Count	*19	*66	*99	_															
Black Sale/Mftg Arrest Count	*/6	* 69:	*96	. 0%	_														
White Sale/Mftg Arrest Count	34*	.74*	33*	:72*	36*	_													
 Black Drug Death Rate(Ln) 	11	=	12	=	=	9.	_												
White Drug Death Rate(Ln)	22	\$2.	71	19	23*	4	8	_											
Violent Crime Rate	*79	27*	*29:	78*	*19	0	15	*94.	_										
 Property Crime Rate 	*17:	38*	* 1	38*	:45	70	.07	24*	* 29:	_									
 Total Population Size 	27*	20	27*	*6	28*	*75	10.	-î	-25*	-25*	_								
 Black Population Size 	*19	43*	*19	*44	*59:	<u>S</u>	.07	.18	38*	-05	52*	_							
 White Population Size 	-16	70*	-16	25*	1.	*44	-03	-25*	-26	-29*	*6/.	ij	_						
 Percentage of Blacks 	.42*	8	43*	70	39*	-78*	80:	39*	.75*	19	-25*	57*	*69-	_					
 Percentage of Whites 	43*	9	*#	-03	*40*	78*	-08	-38*	-75*	-19	23*	-58*	*89	*66-	_				
Economic Disadvantage	35*	9	35*	=	32*	14	6	.43*	*89:	=	4.	*64	-52*	*58:	-85				
 Rented Housing Units 	24*	8	72*	8	21	-04	8	=	36*	*0*	-18	60:	29*	.28*	-30*	78*	_		
 Suspicious Drug Calls Rate(Ln) 	*67	19	*64	79	\$12	-05	28*	36*	*9 <i>L</i> :	34*	-16	.46*	-52*	.75*	*9 <i>L</i> '-	*19	.77*	_	
 Drug Hotline Calls Rate(Ln) 	33*	79	33*	21	33*	.07	31*	25*	*47	-05	2	.47*	-22	.45*	-:45*	.48*	-12	.71*	_
$^*p < .05$ (two-tailed test)																			

Suspicious drug calls and drug hotline calls are positively and strongly correlated with one another (r = .71, p < .05), which confirms the validity of the citizen calls for drug service construct. Additionally, the suspicious drug calls rate is positively correlated with the black drug death rate (r = .28, p < .05) and the white drug death rate (r = .36, p < .05), just as the drug hotline calls rate is positively correlated with the black drug death rate (r = .31, p < .05) and the white drug death rate (r = .25, p < .05). The positive, significant correlations between the calls for drug service measures and drug death rates confirm the validity of the drug death rate as a proxy for drug involvement although the correlations are moderate enough to show that calls for drug service and the drug death rate capture distinct dimensions of drug involvement. As mentioned previously, suspicious drug calls and drug hotline calls are positively and significantly correlated with the three black drug arrest outcomes, violent crime, percentage of black residents, and economic disadvantage.

DIAGNOSTICS

Before proceeding to the multivariate analysis, I examined a variety of regression diagnostics. The distributions of some of the continuous variables are skewed and kurtotic in their original metric. I therefore log transformed (ln(variable + 1)) the drug death rates, suspicious drug calls rates, and drug hotline calls rates before entering them into the models. Although the violent and property crime rates are slightly skewed and kurtotic in their original metric, the final models use the original metric since the log transformed version yields the same multivariate findings. Over dispersion characterizes many of the variables, including the outcomes, as their variance exceeds their means. For this reason, I chose negative binomial regression over poisson regression because it

allows for over-dispersed variables. Moreover, a formal test confirms that the negative binomial regression model is more appropriate than the poisson model because its BIC (Bayesian Information Criterion) is lower. Despite strong correlations among some of the variables, multicollinearity is not a concern in the data. The variance inflation factors are all under 5.00.

MULTIVARIATE RESULTS

Multivariate analyses are used to test whether neighborhood characteristics help explain racial disparities in drug arrests. Tables 4.4 (total drug arrests), 4.5 (drug possession arrests), and 4.6 (drug sale/manufacturing arrests) present the negative binomial regression results for white drug arrests and black drug arrests, separately. The models regress race-specific drug arrests onto race-specific drug death rates, violent and property crime rates, economic disadvantage, rented housing units, racial composition, and each measure of citizen calls for drug service (suspicious drug calls rates and drug hotline calls rates). Models 1 in Tables 4.4, 4.5, and 4.6 display the full models with the suspicious drug calls rate while Models 2 display the full models with the drug hotline calls rate. In addition to estimating drug arrests in the average neighborhood, the analysis examines the conditional effect of neighborhood racial context. As shown in Table 4.7, the models examine the predictors of race-specific total drug arrests in white, black, and mixed neighborhoods, separately.

The tables display incidence rate ratios $(IRR)^9$, robust standard errors (RSE), and statistical significance levels. Incidence rate ratios are presented and discussed to

⁹ Table 4.7 presents unstandardized *b* coefficients rather than IRRs due to extremely large or small IRRs for the racial composition coefficients (e.g. 2.42e-07 or 4.07e03).

facilitate a meaningful comparison of the effect sizes of the variables. However, tables presenting the unstandardized b coefficients are available in Appendix A. As mentioned previously, race-specific population size is included as the exposure variable in all models to appropriately adjust the count outcomes, and the models use robust standard errors and account for the clustering of observations within neighborhoods. In addition to the regression results, the tables show χ^2 results from the SUR post-estimation which tests whether coefficients in the white and black models significantly differ (black coefficient minus white coefficient).

TOTAL DRUG ARRESTS

Models 1 in Table 4.4 present results for total drug arrests for whites and blacks. Results show that neighborhood-level factors are related to white and black drug arrests, although different factors predict arrests for each group. The race-specific drug death rate is significantly related to white drug arrests but not black drug arrests. Holding the other variables constant, a one-unit increase in the white drug death rate is associated with a 36% increase in white drug arrests (IRR = 1.36, RSE = .13, p < .01) while the black drug death rate is not significantly related to black drug arrests (IRR = 1.24, RSE = .22, p > .05). In other words, when officers arrest white suspects, they are responding to drug involvement. When officers arrest black suspects, they are responding to factors other than drug involvement. Despite this difference, the SUR test of difference in coefficients reveals that the race-specific drug death rate has a statistically similar effect on white and black drug arrests ($\chi^2 = .19$, p > .05). Contrary to differential drug involvement theory, the race-specific drug death rate does not explain racial disparities in drug arrests.

Table 4.4 Negative Binomial	Regression I	Results for I	Race-Speci	fic Total Di	rug Arrest (Counts $(N = 78)$
		Models 1			Models	s 2
	White Arrests IRR (RSE)	Black Arrests IRR (RSE)	$SUR \chi^2$	White Arrests IRR (RSE)	Black Arrests IRR (RSE)	SUR χ^2
Race-Specific Drug Death Rate(Ln)	1.36** (.13)	1.24 (.22)	0.19	1.35** (.13)	1.30 (.23)	0.03
Violent Crime Rate	1.01* (.00)	1.01*** (.00)	0.42	1.01 (.00)	1.01*** (.00)	2.21
Property Crime Rate	1.00 (.00)	1.00 (.00)	0.99	1.00 (.00)	1.00 (.00)	3.42
Economic Disadvantage	1.32 (.30)	0.99 (.12)	1.44	1.29 (.28)	0.99 (.12)	1.48
Rented Housing Units	0.06*** (.04)	0.88 (.30)	14.42***	0.08*** (.05)	0.94 (.37)	11.95***
Racial Composition (% black)	30.47*** (20.84)	0.15*** (.05)	59.83***	41.69*** (28.45)	0.18*** (.06)	66.70***
Suspicious Drug Calls Rate(Ln)	1.12 (.21)	1.19* (.09)	0.13			
Drug Hotline Calls Rate(Ln)				1.24 (.19)	1.02 (.08)	1.82
Constant	0.01*** (.01)	0.02*** (.01)		0.01*** (.00)	0.04*** (.01)	
Race-Specific Population Size (exposure)	1	1		1	1	
Wald χ^2	379.17***	127.21***		407.13***	122.24***	

^{*} $p \le .05$ ** $p \le .01$ ***p < .001 (two-tailed tests)

Consistent with part of differential scrutiny theory, the models show that drug enforcement is concentrated in neighborhoods with the most violent crime, although violent crime has a modest, significant effect on white and black drug arrests. For instance, holding the other variables constant, a one-unit increase in the violent crime rate is related to a 1% increase in white drug arrests (IRR = 1.01, RSE = .00, p < .05) and black drug arrests (IRR = 1.01, RSE = .00, p < .001). The violent crime rate has a statistically similar effect on white and black drug arrests ($\chi^2 = .42$, p > .05), indicating that neighborhood violent crime does not explain racial disparities in drug arrests, as part of differential scrutiny predicts. Percentage of rented housing units, a proxy for residential instability, significantly predicts white drug arrests (IRR = .06, RSE = .04, p < .05)

.001) but not black drug arrests (IRR = .88, RSE = .30, p > .05). A one percent increase in residential instability decreases white drug arrests by 94%, holding the other variables constant, suggesting that officers are more likely to arrest white suspects in *stable* neighborhoods rather than in neighborhoods with high residential turnover. The effect of rented housing units is significantly stronger for white drug arrests than black drug arrests ($\chi^2 = 14.42$, p < .001), indicating that residential stability is related to the racial disparity in drug arrests.

Differential scrutiny theory also posits that drug enforcement is likelier in neighborhoods with more calls for drug service. The models show some support for this claim, specifically when officers arrest black suspects. A one-unit increase in the suspicious drug calls rate is associated with a 19% increase in black drug arrests (IRR = 1.19, RSE = .09, p < .05), although the suspicious drug calls rate is unrelated to white drug arrests (IRR = 1.12, RSE = .21, p > .05). Black drug arrests are a function of citizens' suspicious drug calls, yet the suspicious drug calls rate has a statistically similar effect on drug arrests for both whites and blacks ($\chi^2 = .13$, p > .05).

The models show that neighborhood racial composition has a substantial effect on drug enforcement practices. Percentage of black residents significantly predicts white and black drug arrests; however, the direction and magnitude of these relationships differ between groups. Specifically, when holding the other variables constant, a one percent increase in the black population significantly increases white drug arrests more than thirty-fold (IRR = 30.47, RSE = 20.84, p < .001) and significantly decreases black drug arrests by 85% (IRR = .15, RSE = .05, p < .001). Stated differently, when accounting for drug deaths, violent and property crime, and relevant covariates, officers are more likely

to arrest white suspects in neighborhoods with a higher percentage of blacks and are more likely to arrest black suspects in neighborhoods with a higher percentage of whites. Racial composition is the strongest predictor in the models, and it has a significantly stronger effect on white drug arrests than black drug arrests ($\chi^2 = 59.83$, p < .001). These results suggest that neighborhood racial composition explains racial disparities in drug arrests.

Models 2 in Table 4.4 present comparable results for race-specific total drug arrests, except with the drug hotline calls rate instead of the suspicious drug calls rate. The substantive results are similar with two exceptions. Unlike results in Models 1, Models 2 show that violent crime is not significantly related to white drug arrests (IRR = 1.01, RSE = .00, p > .05) although it is significantly related to black drug arrests (IRR = 1.01, RSE = .00, p < .001). Violent crime has a statistically similar effect on white and black drug arrests ($\chi^2 = 2.21$, p > .05). The other exception is the second indicator of citizen calls for drug service—drug hotline calls rate—is not significantly related to white drug arrests (IRR = 1.24, RSE = .19, p > .05) or black drug arrests (IRR = 1.02, RSE = .08, p > .05). In other words, officers are not responding to citizen calls to the drug hotline when making drug arrests.

DRUG POSSESSION ARRESTS

Results in Table 4.5 focus on explaining racial differences in arrests for drug possession, which constitute 89% of total drug arrests. As such, results for drug possession arrests are substantively similar to those for total drug arrests. As Models 1 in Table 4.5 show, a one-unit increase in the white drug death rate is associated with a 35% increase in white drug arrests (IRR = 1.35, RSE = .13, p < .01) while the black drug death

rate is not significantly related to black drug arrests (IRR = 1.24, RSE = .22, p > .05). Race-specific drug death rate has a statistically similar effect on white and black drug possession arrests ($\chi^2 = .18$, p > .05). Additionally, a one-unit increase in the violent crime rate is significantly related to a 1% increase in white drug arrests (IRR = 1.01, RSE = .00, p < .05) and black drug arrests (IRR = 1.01, RSE = .00, p < .001). Violent crime has a statistically similar effect on white and black drug possession arrests ($\chi^2 = .69$, p > .05). In contrast to the significant relationship between suspicious drug calls and black arrests in Table 4.4 for total drug arrests, Models 1 in Table 4.5 show that the suspicious drug calls rate is not significantly related to drug possession arrests for either group. Likewise, Models 2 in Table 4.5 show that the drug hotline calls rate is not significantly related to white or black drug possession arrests.

Similar to results for total drug arrests, rented housing units and racial composition are the two factors related to racial disparities in drug possession arrests. A one percent increase in rented housing units is associated with a 94% decrease in white drug arrests (IRR = .06, RSE = .04, p < .001), indicating that whites have a greater risk for drug arrest in residentially stable neighborhoods. Percentage of rented housing units is not significantly related to black drug arrests (IRR = .95, RSE = .33, p > .05), and its effect is statistically stronger on white drug possession arrests than black drug possession arrests ($\chi^2 = 14.28$, p < .001). A one percent increase in the percentage of black residents significantly increases white drug arrests 33-fold (IRR = 33.03, RSE = 22.84, p < .001) and significantly decreases black drug arrests by 85% (IRR = .15, RSE = .05, p < .001), a relationship that is statistically stronger for white arrests than black arrests ($\chi^2 = 58.42$, p < .001).

Table 4.5 Negative Binomial R	Regression Re	esults for Rac	e-Specific l	Drug Possess	ion Arrest C	ounts $(N = 78)$		
		Models 1		Models 2				
	White	Black	SUR χ^2	White	Black	$SUR \chi^2$		
	Arrests IRR (RSE)	Arrests IRR (RSE)		Arrests IRR (RSE)	Arrests IRR (RSE)			
Race-Specific Drug Death	1.35**	1.24	0.18	1.35**	1.29	0.04		
Rate(Ln)	(.13)	(.22)		(.13)	(.23)			
Violent Crime Rate	1.01*	1.01***	0.69	1.01	1.01***	2.75		
	(.00.)	(.00)		(.00)	(.00)			
Property Crime Rate	1.00	1.00	1.55	1.00	1.00	4.46*		
	(.00.)	(.00)		(.00)	(.00)			
Economic Disadvantage	1.32	0.98	1.49	1.29	0.98	1.49		
	(.31)	(.12)		(.28)	(.12)			
Rented Housing Units	0.06***	0.95	14.28***	0.08***	0.98	11.58***		
	(.04)	(.33)		(.05)	(.39)			
Racial Composition (% black)	33.03***	0.15***	58.42***	45.87***	0.17***	66.43***		
	(22.84)	(.05)		(31.76)	(.06)			
Suspicious Drug Calls	1.12	1.15	0.02					
Rate(Ln)	(.21)	(.09)						
Drug Hotline Calls Rate(Ln)				1.26	1.01	2.19		
				(.19)	(.08)			
Constant	0.01***	0.02***		0.01***	0.03***			
	(.01)	(.01)		(.00)	(.01)			
Race-Specific Population Size (exposure)	1	1		1	1			
Wald χ^2	383.71***	125.93***		413.30***	124.38***			

 $p \le .05 *p \le .01 *p \le .01 (two-tailed tests)$

DRUG SALE/MANUFACTURING ARRESTS

Models examining the predictors of drug sale/manufacturing arrests are shown in Table 4.6. Similar to results for total drug arrests and drug possession arrests, the race-specific drug death rate is significantly related to white drug sale/manufacturing arrests and not black drug sale/manufacturing arrests. A one-unit increase in the white drug death rate is associated with an 84% increase in white drug arrests (IRR = 1.84, RSE = .28, p < .001) while the black drug death rate is not significantly related to black drug arrests (IRR = 1.08, RSE = .15, p > .05). Unlike results from the preceding models, the effect of the race-specific drug death rate is significantly stronger for white than black drug sale/manufacturing arrests ($\chi^2 = 7.38$, p < .01). Moreover, a one-unit increase in the

violent crime rate is significantly related to a 1% increase in black drug arrests (IRR = 1.01, RSE = .00, p < .001), although it is unrelated to white drug arrests (IRR = 1.01, RSE = .00, p > .05), and has a statistically similar effect on both groups' arrest ($\chi^2 = .02$, p > .05). In addition, a one-unit increase in the suspicious drug calls rate is significantly associated with a 59% increase in black drug arrests (IRR = 1.59, RSE = .15, p < .001) although it is not significantly related to white drug arrests (IRR = 1.31, RSE = .22, p > .05). The magnitude of suspicious drug calls is statistically similar for both groups ($\chi^2 = 1.29$, p > .05). Similar to results for total drug arrests and drug possession arrests, the drug hotline calls rate, as shown in Models 2 in Table 4.6, is not significantly related to drug sale/manufacturing arrests for either group.

While the percentage of rented housing units has a significantly stronger effect on white total and possession arrests than black total and possession arrests, the percentage of rented housing units is not significantly associated with drug sale/manufacturing arrests for either group. Furthermore, racial composition shapes officers' enforcement of drug sale/manufacturing in a way that differs from its effect on total drug arrests and drug possession arrests. Similar to the preceding models, a one percent increase in the relative black population is significantly related to an 81% decrease in black drug arrests (IRR = .19, RSE = .06, p < .001), an effect that is statistically stronger for black drug arrests than white drug arrests ($\chi^2 = 9.47$, p < .01). Unlike the preceding models, racial composition is not significantly related to white drug arrests (IRR = 1.35, RSE = .89, p > .05).

Table 4.6 Negative Binomial Regre	ession Results	for Race-Speci	ific Drug Sa	ale/Mftg. Arr	est Counts (N	= 78)
		Models 1			Models 2	
	White Arrests IRR (RSE)	Black Arrests IRR (RSE)	SUR χ^2	White Arrests IRR (RSE)	Black Arrests IRR (RSE)	$SUR \chi^2$
Race-Specific Drug Death Rate(Ln)	1.84*** (.28)	1.08 (.15)	7.38**	1.77*** (.27)	1.20 (.18)	3.21
Violent Crime Rate	1.01 (.00)	1.01*** (.00)	0.02	1.01* (.00)	1.01*** (.00)	0.06
Property Crime Rate	1.00 (.00)	1.00 (.00)	0.82	1.00 (.00)	1.00 (.00)	0.27
Economic Disadvantage	0.99 (.22)	0.93 (.14)	0.10	1.02 (.25)	0.93 (.17)	0.23
Rented Housing Units	0.31 (.24)	0.73 (.30)	1.20	0.33 (.25)	0.81 (.42)	1.36
Racial Composition (% black)	1.35 (.89)	0.19*** (.06)	9.47**	1.81 (1.30)	0.24*** (.09)	8.90**
Suspicious Drug Calls Rate(Ln)	1.31 (.22)	1.59*** (.15)	1.29			
Drug Hotline Calls Rate(Ln)				1.11 (.20)	1.13 (.13)	0.01
Constant	0.00*** (.00)	0.00*** (.00)		0.00*** (.00)	0.00*** (.00)	
Race-Specific Population Size (exposure)	1	1		1	1	
Wald χ^2	132.13***	167.74***		124.36***	110.21***	

 $p \le .05 *p \le .01 *p \le .01 *p \le .001 (two-tailed tests)$

TOTAL DRUG ARRESTS IN RACIALLY-CHARACTERIZED NEIGHBORHOODS

The substantial effect of racial composition on drug arrests in the average neighborhood warrants further investigation in order to better understand the racial processes at play in a given neighborhood context. This is especially important since some racial conflict hypotheses make specific predictions about the relationship between the relative black population and social control in racially-characterized neighborhoods. The racial threat hypothesis posits a curvilinear relationship between percent black and social control, expecting percent black to be positively associated with black drug arrests

in white or mixed neighborhoods. According to the defended neighborhoods hypothesis, black drug arrests should be significantly greater in white neighborhoods. Benign neglect suggests that a higher percentage of blacks will lead to significantly lower black drug arrests in black neighborhoods. To understand the importance of the relative black population size on each group's arrest in a given neighborhood context, the models in Table 4.7 stratify the cases by neighborhood type (e.g. black, white, mixed neighborhoods)¹⁰ and regress total drug arrests onto the theoretically relevant predictors, including the suspicious drug calls rate¹¹.

Table 4.7 Negative Binomi	al Regress	ion Results	for Race-	Specific To	otal Drug A	rrests by	Neighbor	hood Type)
		N'hoods (A			N'hoods (λ			N'hoods (A	
	White	Black	SUR χ^2	White	Black	SUR χ^2	White	Black	SUR χ^2
	<u>Arrests</u>	<u>Arrests</u>		<u>Arrests</u>	<u>Arrests</u>		<u>Arrests</u>	<u>Arrests</u>	
	b	ь		ь	Ь		ь	ь	
	(RSE)	(RSE)		(RSE)	(RSE)		(RSE)	(RSE)	
Race-Specific Drug Death	.66	.17	1.31	.16	06	.78	.43**	.06	2.53
Rate(Ln)	(.36)	(.17)		(.08)	(.21)		(.16)	(.13)	
Violent Crime Rate	00	00	.02	01	.01***	5.78*	.00	.01**	1.90
	(.01)	(.02)		(.01)	(.00)		(.01)	(.00)	
Property Crime Rate	.00	.00	.18	.00**	00	8.62**	.00	00	3.18
	(.00)	(.00)		(.00)	(.00)		(.00)	(.00)	
Economic Disadvantage	23	.05	.31	.71*	.44***	.63	.47	16	5.04*
_	(.38)	(.36)		(.35)	(.13)		(.29)	(.09)	
Rented Housing Units	1.51	2.75	.69	-1.07	23	.92	-1.35	1.80***	7.68**
-	(1.14)	(1.64)		(.86)	(.32)		(1.09)	(.33)	
Racial Composition (% black)	-3.08	-15.23***	14.60***	17.52***	1.27	36.48***	.95	-1.95***	7.72**
• , , ,	(2.72)	(2.88)		(2.79)	(.92)		(.83)	(.56)	
Suspicious Drug Calls Rate(Ln)	.99***	.83	.15	.46	.37***	.13	.30	.48***	.36
	(.26)	(.47)		(.27)	(.09)		(.30)	(.11)	
Constant	-8.64***	-5.28***		-19.10***	-6.79***		-5.76***	-6.13***	
	(.96)	(1.36)		(3.22)	(1.08)		(1.30)	(.45)	
Race-Specific Population Size	ì	ì		ì	ì		ì	ì	
(exposure)									
Wald χ ²	499.02***	72.18***		68.26***	209.98***		81.92***	300.75***	

^{*} $p \le .05$ ** $p \le .01$ ***p < .001 (two-tailed tests)

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¹⁰ In supplemental analyses not shown, an examination of interaction terms between percent black and white/black/mixed neighborhood dummy variables yielded substantively similar results. However, the stratified analysis provides clearer, more direct results of the way neighborhood racial context conditions the relationship between percent black and drug arrests.

¹¹ Supplemental analyses (not shown) using the drug hotline calls rate in lieu of the suspicious drug calls rate yielded substantively similar findings except the drug hotline calls rate was not significant in either model.

Table 4.7 presents unstandardized b coefficients rather than IRRs due to extremely large or small IRRs for the racial composition coefficients (e.g. 2.42e-07 or 4.07e03). Similar to the results in the previous models, results in Table 4.7 show that whites and blacks face a significantly greater risk for drug arrests in neighborhoods incongruent with their race. In white neighborhoods, decreases in percent black significantly increase black drug arrests (b = -15.23, RSE = 2.88, p < .001) while percent black has no significant effect on white drug arrests (b = -3.08, RSE = 2.72, p > .05). Percent black is significantly stronger for black drug arrests than white drug arrests ($\chi^2 = 14.60$, p < .001) in white neighborhoods. Results in white neighborhoods are consistent with the defended neighborhoods hypothesis, as officers are more likely to arrest black suspects where few blacks reside.

In black neighborhoods, increases in percent black significantly increase white drug arrests (b = 17.52, RSE = 2.79, p < .001) and have no significant effect on black drug arrests (b = 1.27, RSE = .92, p > .05), a difference that is significantly stronger for white drug arrests ($\chi^2 = 36.48$, p < .001). The racial conflict hypotheses make no predictions about white drug arrests, but this finding refutes the benign neglect hypothesis since social control against blacks is neither higher nor lower in black neighborhoods.

In mixed neighborhoods where the black and white population sizes are comparable, decreases in percent black significantly increase black drug arrests (b = -1.95, RSE = .56, p < .001), an effect that is significantly stronger for black drug arrests than white drug arrests ($\chi^2 = 7.72$, p < .01). Percent black is not significantly related to white drug arrests in mixed neighborhoods (b = .95, RSE = .83, p > .05). Findings in

mixed neighborhoods are similar to those in white neighborhoods: officers are more likely to arrest black suspects where there are more white residents although white suspects are immune from such risk. This finding is consistent with the defended neighborhoods hypothesis.

The stratified analysis provides clear, direct results for the conditioning effect of neighborhood racial context on the relationship between percent black and drug arrests. Yet, the downside to the stratified analysis is the small subsample sizes. To verify the curvilinear effect of racial composition on drug arrests, I conducted two sets of supplemental analyses, which yielded results substantively similar to those in the stratified analysis. In one set of analyses, I examined interaction terms between percent black and white/black/mixed neighborhood dummy variables. In another set of analyses, I included a squared term for percent black in the white and black arrest models to determine the point at which the risk for drug arrests changes. To visually depict the average curvilinear effect of racial composition, predicted probability graphs of these models are shown in Figure 4.2 (white total drug arrests) and Figure 4.3 (black total drug arrests).

Confirming results from the stratified model, Figure 4.2 shows that the risk for white drug arrests is low and remains flat when percent black is between 0% and 70%, a range that includes white neighborhoods and mixed neighborhoods. The risk for white drug arrests begins to increase exponentially when the black population exceeds 70%, and this increase is steepest when the black population is over 90%. The average marginal effects of racial composition on white drug arrests confirm that officers are

Figure 4.2 Marginal Effects of Racial Composition on White Total Drug Arrests

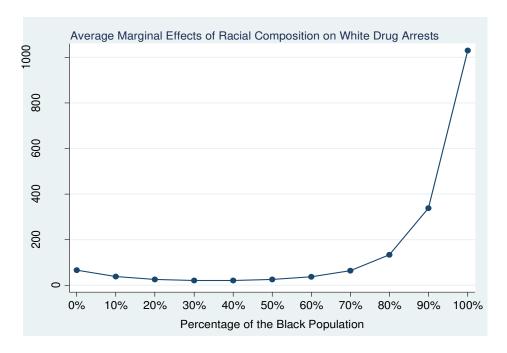
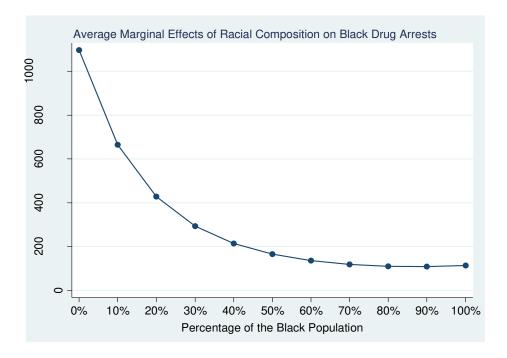


Figure 4.3 Marginal Effects of Racial Composition on Black Total Drug Arrests



more likely to arrest white suspects in black neighborhoods than elsewhere. Figure 4.3 for black drug arrests shows that the risk for black drug arrests is highest when the black population is near 0%. The predicted number of black drug arrests declines rapidly as the black population increases, and black drug arrests begin to flatten when the black population is near 80%. Thus, the average marginal effects of racial composition on black drug arrests confirm that officers are more likely to arrest black suspects in white neighborhoods, followed by mixed neighborhoods, than in black neighborhoods.

While the purpose of the stratified analysis is to understand how racial context conditions the effect of percent black on drug arrests, the models show other important differences worth mentioning. However, these results should be interpreted with caution due to the small subsample sizes. As Table 4.7 shows, officers are responding to drug involvement when arresting white suspects in mixed neighborhoods (b = .43, RSE = .16, $p \le .01$) but are responding to other factors when arresting whites in any other neighborhood context and when arresting blacks in any neighborhood context. Arrests of black suspects in black (b = .01, RSE = .00, p < .001) and mixed neighborhoods (b = .01, RSE = .00, p < .01), which have significantly higher violent crime rates than white neighborhoods (see Table 4.2), are a function of increases in violent crime rates. Violent crime is not significantly related to white drug arrests in any neighborhood context or drug arrests made in white neighborhoods. In mixed neighborhoods, residential instability, measured as the percentage of rented housing units, is positively associated with black drug arrests (b = 1.80, RSE = .33, p < .001) and unrelated to white drug arrests (b = -1.35, RSE = 1.09, p > .05), an effect that is significantly stronger for blacks than whites ($\chi^2 = 7.68$, p < .01). Residential instability is not significantly related to drug

arrests in white or black neighborhoods. Finally, the suspicious drug calls rate in racially homogenous neighborhoods is positively related to the arrest of suspects whose race matches the racial context. White drug arrests in white neighborhoods (b = .99, RSE = .26, p < .001), and not black drug arrests (b = .83, RSE = .47, p > .05), are a function of citizens calling the police just as black drug arrests in black neighborhoods (b = .37, RSE = .09, p < .001) and not white drug arrests (b = .46, RSE = .27, p > .05). Similar to black neighborhoods, in mixed neighborhoods, black drug arrests (b = .48, RSE = .11, p < .001), and not white drug arrests (b = .30, RSE = .30, p > .05), are a function of citizens calling the police. Together, these results show that the predictors of drug arrests vary by neighborhood type.

SENSITIVITY ANALYSES

To check the robustness of the final multivariate results and to understand the influence of each variable, I entered each covariate into the models alone and with each of the other predictors in every possible combination and examined supplemental regression models. Economic disadvantage is one measure of concern because it is strongly correlated with percent black (r = .85, p < .05) and violent crime (r = .68, p < .05). When entered into the models alone, it is significantly related to white drug arrests but not black drug arrests. Yet the substantive results remain the same when including or excluding economic disadvantage from the full models. Therefore, the final models include economic disadvantage.

Measurement choices and other analytical decisions can influence results, so I examined how sensitive the results were to different metrics of the same variables. For example, the final dependent variables are the sum of drug arrests during the five-year

period. I also computed the outcomes as average annual counts because the number of drug arrests can vary by year and influence results. The summed counts and the average annual counts produced substantively similar results. Additionally, the final models include the log transformed race-specific drug death rates, although I examined whether results would change if the drug deaths were computed as counts instead. While the substantive results remained the same for black drug arrests, white drug arrests were sensitive to whether race-specific drug deaths were computed as counts versus rates. The final models included rates rather than counts to take into account the race-specific population at risk for drug deaths. Although the race-specific drug death rate is more informative than the total drug death rate, it is possible for black drug arrests to be a function of white drug deaths and white drug arrests to be a function of black drug deaths. It is also possible for total drug deaths to influence the results. Supplemental analyses showed that each group's arrest was not a function of the other group's drug death rate, nor were the results sensitive to the use of total drug death rates; consistent with results in the final models, the total drug death rate was not significantly related to black drug arrests but was significantly related to white drug arrests.

The race-specific population size is the exposure variable in the final models. It adjusts the race-specific count outcomes by accounting for the population at risk for arrest, which differs from including percent black as a predictor. It should be noted that percent black is the expression of the *relative* black population size. Percent black and black population size are significantly correlated (r = .57, p < .05) but are distinct, and including percent black as a predictor helps test theoretical propositions. When excluding it from the models, economic disadvantage becomes negative and significant for black

drug arrests and becomes positive and significant for white drug arrests. This pattern is similar to the finding for racial composition in the final models because economic disadvantage is a proxy for race in St. Louis (r = .85, p < .05). The magnitude, direction, and significance levels of the other predictors remain the same whether including or excluding percent black or economic disadvantage. Therefore, the final models include both measures. Additionally, it is possible that population density—the population size—influences the risk for drug arrests. Therefore, I included the total population size and race-specific population size, separately, as predictors in the model. Neither measure was significantly related to either group's drug arrest, so it is excluded from the final models.

DISCUSSION

Analyses from the quantitative component investigated whether neighborhood-level characteristics could explain why blacks are overrepresented and why whites are underrepresented as drug arrestees. The quantitative results provide important insights into drug enforcement, in general, and the racial disparity problem, specifically. First, the results reveal the importance of a neighborhood-level analysis in understanding drug enforcement practices. Just as scholars suggest that officers behave according to the neighborhood context (Black 2010; Klinger 1997; Smith 1986), the quantitative component shows that neighborhood context shapes drug enforcement in fundamental ways. Second, the results reveal that different neighborhood characteristics matter when officers arrest white suspects versus black suspects. Most notably, white drug arrests are a function of drug deaths, along with other neighborhood characteristics, whereas black drug arrests are a function of factors other than drug deaths. Third, drug arrests in

racially-characterized neighborhoods are a function of different neighborhood characteristics.

NO DIFFERENTIAL DRUG INVOLVEMENT

Three theories guided the analyses: differential drug involvement, differential scrutiny, and racially-biased policing theories. Overall, the findings refute differential drug involvement theory which attributes higher drug involvement among blacks and in black neighborhoods to the overrepresentation of blacks as drug arrestees. A descriptive analysis of the race-specific drug death rate—the proxy for race-specific drug involvement—shows that blacks are significantly less likely to engage in drugs than whites. Moreover, drug deaths occur evenly across racially-characterized neighborhoods and are no greater in black neighborhoods than in white or mixed neighborhoods. Even more, the multivariate analysis shows the black drug death rate is not significantly associated with black drug arrests although the white drug death rate is related to white drug arrests. This means that white drug arrests are a function of drug involvement, as they should be, while black drug arrests are a function of factors other than drug involvement. However, the magnitude of drug deaths was statistically similar for both groups.

DIFFERENTIAL SCRUTINY

The analyses found some support for differential scrutiny theory, although it does not appear to be the best explanation of the racial disparity problem. Differential scrutiny theory contends that predominately black neighborhoods have higher violent crime rates and higher calls for police services than their counterparts. Indeed, the descriptive analysis of racially-characterized neighborhoods shows that compared to white or mixed

neighborhoods, black neighborhoods have the highest violent crime rates and calls for drug service rates in the city. The theory goes on to argue that high violent crime and calls for service in black neighborhoods attract police deployment and consequently, residents and frequenters in those areas are placed at greater risk for arrest. This differential scrutiny is evidenced in the multivariate results but in a way that is not racialized. Both white and black suspects have a greater risk for drug arrests in violentprone neighborhoods. Yet, the effect of violent crime on drug arrests is very modest and is statistically similar for both groups. Furthermore, the suspicious drug calls rate is positively related to black drug arrests, but not white drug arrests. Officers arrest black citizens in neighborhoods with high drug-related calls to the 911 center. The statistically similar effect of suspicious drug calls on drug arrests for both groups, however, indicates that they do not explain the racial disparity in drug arrests. Relatedly, drug enforcement is not a function of citizens' anonymous calls to the drug hotline. This is likely because SLMPD investigates very few of these tips and does not include them into their deployment strategy. It is possible that overlooking this additional source of information about drug involvement biases drug arrest patterns.

RACIALLY-BIASED POLICING

The quantitative analysis found the strongest support for racially-biased policing theory, which appears to explain the racial disparity problem. When controlling for legal factors such as drug deaths, violent and property crime, and calls for drug service, neighborhood racial composition strongly shapes drug enforcement practices.

Specifically for drug possession, officers are more likely to arrest white suspects in black neighborhoods and arrest black suspects in white neighborhoods, and the effect of racial

composition is significantly stronger for whites than blacks. These findings do not necessarily comport with the racial conflict hypotheses. Racial threat, benign neglect, and defended neighborhood hypotheses make predictions about the use of social control against blacks but are silent about the way social control is used against whites. Findings from this dissertation suggest that officers are more likely to make arrests of individuals when their race does not match the neighborhood racial context, a type of racial profiling referred to as "out-of-placeness" or "racial incongruity" (Brunson and Weitzer 2009; Fagan and Davies 2000; Novak and Chamlin 2012; Stewart et al. 2009). Studies on police traffic enforcement have found a similar relationship (Novak and Chamlin 2012; Rojek, Rosenfeld, and Decker 2012). For example, Rojek, Rosenfeld, and Decker (2012) examined the racial composition of traffic stops in St. Louis and found that black drivers were more likely to be searched after a stop in white communities, and white drivers were more likely to be searched after a stop in black communities, controlling for characteristics of officers, drivers, and stops. Echoing this pattern, this dissertation shows that when officers are enforcing drug laws, "race serves as a marker of where people 'belong,' and racial incongruity as a marker of suspicion" (Fagan and Davies 2000, 477– 478).

The substantially larger effect of racial composition on white drug arrests suggests that additional processes might be at play. It is likely that low drug enforcement in white neighborhoods exacerbates the strong race effect for whites. Recall that of the 14,395 drug arrests during the time period, only 964 (7%) occurred in white neighborhoods. Also whites makeup 26% of drug arrestees although they account for 46% of the population in St. Louis. In other words, just as blacks are overrepresented as

drug arrestees, whites are underrepresented likely because white neighborhoods are "below the radar" with regards to drug enforcement. Had drug enforcement been greater in white neighborhoods, more whites would become drug arrestees, especially in white neighborhoods. Thus, it appears that in addition to racial incongruity, the underrepresentation of whites contributes to the large effect of racial composition on white arrests and ultimately racial disparities in drug arrests. Another factor is the white drug death rate is significantly higher in black neighborhoods than in other neighborhoods although the black drug death rate is similar across neighborhood types. This suggests that whites' higher drug involvement in black neighborhoods might put them at greater risk for arrest and contribute to the substantial race effect.

On the other hand, black drug arrests are likelier in white and mixed neighborhoods where more whites reside. Unlike their white counterparts, evidence does not show black drug offenders traveling to white neighborhoods to engage in drug offending. In light of St. Louis' legacy of white supremacy and explicit, concerted efforts to restrict blacks from white places, as discussed in Chapter 3, the race effect for blacks can be interpreted as officers' raised suspicion of blacks in white areas (racial incongruity) and increased social control in effort to protect white interests, as the defended neighborhoods hypothesis posits. Regardless of the processes at play or if racial biases are implicit or explicit, drug enforcement in St. Louis is racially discriminatory.

RESIDENTIAL (IN)STABILITY

In addition to theoretical predictions about racial disparities in drug arrests, the results point to the importance of other neighborhood characteristics in shaping drug enforcement practices. Most notably and unexpectedly, residential stability is positively

related to white drug arrests and unrelated to black drug arrests, and has a stronger effect for whites. This finding runs counter to expectations based on social disorganization theory, which posits a negative association between residential stability and crime. However, this dissertation predicts police behavior rather than crime. Collective efficacy and the ability of some neighborhoods to align with the police might help explain this antithetical finding (Kubrin and Weitzer 2003; Sampson 1997). White neighborhoods are significantly more stable than black or mixed neighborhoods, as shown earlier in Table 4.2 and demonstrated by the moderate, negative correlation between rented housing units and percent white in Table 4.3 (r = -.30, p < .05). Neighborhoods that are residentially stable have more long-term residents who are invested in their neighborhoods, are keen to unusual persons or behaviors, and have likely established rapport with patrol officers. As such, residents in stable neighborhoods likely have the capacity to intervene against crime and disorder and to provide officers with information that leads to an arrest. The qualitative analysis might help elucidate this counterintuitive finding.

ARRESTS FOR DRUG POSSESSION VS. DRUG SALE/MFTG.

Because drug sale/manufacturing arrests comprise only 11% of the total drug arrests and they have a larger racial disparity than drug possession arrests, it was worthwhile to examine the predictors of each type of arrest. For both types of arrest, officers are responding to drug involvement when arresting white suspects and to factors other than drug involvement when arresting black suspects. While residential stability is related to the racial disparity in drug possession arrests, it is unrelated to drug sale/manufacturing arrests. Racial composition explains racial disparities in both types of drug arrests but in different ways. Drug possession arrests for whites and blacks are a

function of neighborhood racial incongruity. However, for drug sale/manufacturing arrests, racial incongruity is only related to arrests for blacks and not whites. In other words, racial composition does not shape officers' arrest of whites who are suspected of dealing or manufacturing drugs, but officers are more likely to arrest black suspects for drug dealing/manufacturing where whites are the majority.

LIMITATIONS

While the quantitative analysis provides important insights into racial disparities in drug arrests, it is not without limitations. It should be acknowledged that though the models appropriately account for the population at risk by including the race-specific population size as the exposure variable, one need not be a resident in a given neighborhood in order to be arrested. This is another justification for using count outcomes rather than rates. However, in neighborhoods such as downtown where tourists visit, the racial composition of residents might not reflect the racial composition of the frequenters at risk for arrest¹². Another limitation is the inability to distinguish between the types of drug that elicit arrests. The results cannot discern, for example, whether marijuana leads to drug arrests as much as hard drugs might and whether officers differentially enforce certain types of drugs by race, as some studies have shown (Beckett, Nyrop, and Pfingst 2006). Relatedly, drug deaths are reasonable indicators of hard drug involvement (e.g. cocaine, heroin) but not marijuana involvement since none of the decedents died from marijuana. Therefore, marijuana involvement is likely underrepresented in the analysis, although including the calls for drug service measures

¹² However, in supplemental analyses not shown, excluding known tourist neighborhoods (e.g. Downtown, Downtown West, Central West End, and Midtown) from the models did not change the substantive results.

might capture some of it. This limitation is important to acknowledge since marijuana might be the drug of choice for blacks rather than hard drugs (Mitchell and Lynch 2011).

Chapter 5: Qualitative Component

The qualitative component of this dissertation seeks to answer the second overarching research question: can qualitative differences in drug enforcement practices across racially-characterized neighborhoods and arrestee race help explain the racial disparity problem? Studies on broader policing practices suggest that officers use more proactive, aggressive, surveillance-oriented policing styles in crime-ridden or predominately black neighborhoods than in white neighborhoods (Bass 2001; Black 2010; Ghandnoosh 2015; Smith 1986; Terrill and Reisig 2003; Weitzer 2000). Relatedly, black citizens are subjected to these policing styles more than their white counterparts, as police disproportionately target them for involuntary stops and searches, and they bear the brunt of police misconduct (Brunson and Miller 2006; Brunson and Weitzer 2009; Epp, Maynard-Moody, and Haider-Markel 2014; Fagan and Davies 2000; Ghandnoosh 2015; Golub, Johnson, and Dunlap 2007; Weitzer 1999). This literature is replete with quantitative and descriptive studies on police-citizen encounters, but qualitative examinations are few. Whereas quantitative research methods are ideal for answering "what questions" based on predetermined knowledge, qualitative research methods provide a deeper understanding of complex processes and answers to "how" and why" questions (Maxfield and Babbie 2011), such as how policing practices might translate into racial disparities in drug arrests. Most of the qualitative research on police-citizen encounters is informed by citizens (Brunson 2007; Brunson and Miller 2006; Brunson and Weitzer 2009; Schuck, Rosenbaum, and Hawkins 2008) more so than by officers

(Vera Sanchez and Rosenbaum 2011) or observations of police-citizen encounters (Mastrofski, Reisig, and McCluskey 2002; Mastrofski, Snipes, and Supina 1996; Reisig et al. 2004). More closely related to this dissertation are studies of policing practices within the context of racialized neighborhoods, and some of the leading qualitative examinations have been conducted in St. Louis.

Based on in-depth interviews with black and white adolescents from disadvantaged neighborhoods in St. Louis, Brunson and colleagues found that the vast majority of adolescents summarized the city's police tactics as aggressive and described direct or vicarious harassment and mistreatment by the police in their neighborhoods (Gau and Brunson 2010). The citizens reported widespread use of seemingly arbitrary stops, questionings, and physically intrusive searches by the police (Gau and Brunson 2010; Brunson and Weitzer 2009). Citizens in black and mixed neighborhoods reported that policing mostly consisted of pedestrian and vehicle stops by patrol officers and specialized units and that police harassment was more common in black neighborhoods than in white neighborhoods, with mixed neighborhoods falling in between (Brunson and Weitzer 2009). Moreover, both white and black citizens reported unwelcome, unwarranted police encounters, but white youth reported less trouble with the police and more positive views than black youth. One exception is white citizens reported more police harassment when they frequented black neighborhoods, were with black friends, or wore hip-hop apparel (Brunson and Weitzer 2009). This racial incongruity theme echoes findings from the quantitative component of this dissertation and prior quantitative studies in New York City (Novak and Chamlin 2012) and in St. Louis (Rojek, Rosenfeld, and Decker 2012).

Vera Sanchez and Rosenbaum (2011) also examined the interplay between policing, neighborhood context, and race, except from the point of view of officers. However, rather than focusing on policing practices, the researchers gauged police perceptions of racialized neighborhoods. Based on 40 interviews with officers who patrol four Latino and African American communities in Chicago, the research revealed that officers' conceptions of communities of color were shaped by the quality of their encounters with residents and the degree to which they felt respected. Officers reported feeling misunderstood and unwelcome in communities of color, especially in black communities, and this tension made their jobs difficult and their demeanor unfriendly. Holding the most negative views against black communities, officers described black communities as war zones and hopeless. Officers felt residents had a poor work ethic and that the older generations were responsible for transmitting anti-social and anti-police attitudes to youth. When discussing the neighborhood mixed with Mexican and black residents, which had the lowest crime rates of the four communities, officers regarded Mexican residents as more cooperative, hardworking, and respectful of their communities and black residents as more difficult. One officer noted: "You have to change your personality when you go to the north end [African American section]. You can't be cordial or polite. I know this from my experiences" (Vera Sanchez and Rosenbaum 2011, 169). When discussing racial profiling, officers thought the concept was "phony" (168), illogical, and nonsensical in racially homogeneous communities, explaining that it is impossible to engage in racial profiling if everyone in the community is of the same racial group. Further, officers of color and white officers whose partners were of color

believed it was impossible for them to engage in racially-biased policing because of their race or the race of their partner.

These two groups of studies show that broader policing in racialized communities is contentious. Yet more qualitative research is needed to understand drug enforcement practices, specifically, and factors that influence decisions that lead to an arrest, especially from the outlook of officers. Officers exercise greater discretion when enforcing drug laws than crimes involving victims (e.g. violent, property crime). A close examination of their discretionary decision making and policing styles in specific contexts might help elucidate the racial disparity problem.

As such, this component of the dissertation uses qualitative research methods to understand drug enforcement practices based on officers' accounts. To illuminate exactly why and how policing practices contribute to the overrepresentation of blacks and the underrepresentation of whites in drug arrests, it compares policing practices across racially-characterized neighborhoods and arrestee race. Complementing the quantitative component, the qualitative analysis offers a nuanced depiction of drug enforcement practices and a deeper, contextualized understanding of factors that influence officers' arrest decisions. In addition to elucidating the racial disparity problem, the qualitative component has the potential to fill gaps in criminological research by providing an account of the nature of drug enforcement, as opposed to general policing, across places and people. Additionally, by giving white and black places and persons equal empirical inquiry in this study, the qualitative component adds to the literatures on policing, neighborhoods, and race that generally neglect the study of white places and people at the expense of studying disadvantaged neighborhoods and black citizens.

This chapter is devoted to the qualitative component of this dissertation. It discusses the data used in the analysis, characteristics of the sample of incidents, analytical strategy, and results. The chapter concludes with a discussion of the findings.

DATA

Arrest decisions and practices can be best understood through the lenses of arresting officers, and only qualitative research can provide such purview (Spradley 1979). Qualitative studies that capture officers' perspectives are based on open-ended interviews (Vera Sanchez and Rosenbaum 2011) and observations (Mastrofski, Reisig, and McCluskey 2002; Jonathan-Zamir, Mastrofski, and Moyal 2013). These methodologies are indeed valuable and have shed light on broader policing. However, another rich source of data that researchers have yet to use is the narrative portion of arrest reports. This component of the dissertation analyzes a sample of arrest reports that stem from the drug arrests in the quantitative component in order to gain a deeper understanding of drug arrest practices and how they might contribute to racial disparities in drug enforcement.

When officers make arrests, the police department requires them to write an arrest report detailing information about the arrest incident and suspect. The main part of the report is the officer's narrative, where she/he describes the drug arrest incident and factors that influence their contact with citizens. The typical narrative in these data is the length of one single-spaced typed document and contains detailed information. Because police supervisors and others will read arrest reports and police misconduct and explicit racially-motivated policing are illegal, officers who engage in misconduct or explicit racially-motivated policing have strong incentives to misrepresent their actions and write

reports in a way that hides any racial animus (Skogan and Frydl 2004). Thus, these narratives may represent officers' best presentation of themselves. It is also possible for narratives to be incomplete or embellished.

Despite these limitations, the advantages of analyzing arrest reports rather than employing observational or interview methods are numerous. To start, analyzing drug arrest reports maximizes the use of existing data and reduces the amount of resources, time, and labor involved in conducting observations or interviews. This is because the narrative data already exist in typewritten electronic format, eliminating the need to transcribe data. In addition, analyzing arrest reports can provide answers similar to those derived from observations or interviews while overcoming potential biases inherent in those methods that threaten internal validity (see Spano 2005 for a discussion of potential biases in police observational data). These potential biases include: recall bias, interviewer bias, question bias, respondent bias, sample bias, priming, and social desirability bias (Podsakoff et al. 2003). Some of these biases can especially come into play when studying sensitive topics such as race and racial biases in policing. For example, social desirability bias can sway officers to modify their behaviors in the presence of observers or answer interview questions in a certain manner in order to meet socially desirable expectations, regardless of their true beliefs (Podsakoff et al. 2003; Spano 2005).

Moreover, unlike interviews that gather information about abstract policing practices, officers' narratives are accounts of each *specific* drug arrest incident *immediately after* each arrest occurred in a given neighborhood context. Thus, the arrest reports offer a better way of assessing and contextualizing variations in police practices

than interview data and possibly observational data. Another advantage to analyzing arrest reports is the ability to examine a wide range of drug arrest incidents across contexts, strengthening external validity and the generalizability of the findings, which are common concerns in qualitative research. Studying a wide range and a large number of incidents through observations or interviews might prove too laborious, expensive, and impractical. All in all, the qualitative component is a novel approach to research because it uses an under-utilized data source to examine the question of racial disparities in drug arrests while incorporating arresting officers' voices. It is important to note that the qualitative data in this dissertation are not publicly available and must be requested from the police department.

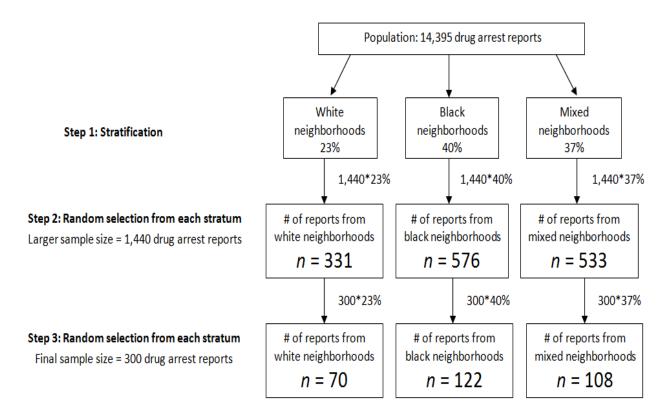
SAMPLE

The St. Louis Metropolitan Police Department (hereafter SLMPD) has graciously provided the drug arrest report data used in the analysis, thanks to the assistance and support of Dr. Richard Rosenfeld and Sherri Schaeffer of SLMPD. Additionally, I received approval from the Institutional Review Board at the University of Missouri-St. Louis to collect these drug arrest reports and conduct this research (Project #719568-1). The final sample is a stratified, random sample of n = 300 drug arrest incidents and is drawn from a larger stratified, random sample of 10% (n = 1,440) of the arrest reports associated with the 14,395 drug arrests in the quantitative component. Thus, the sample of arrest reports represents drug arrests made in St. Louis between 2009 and 2013.

Asking the police department for a sample of the drug arrest reports was more reasonable than requesting all 14,395 reports. Further, it is more feasible to analyze a sample of reports while still ensuring the representativeness of the data through strategic

sampling techniques. For these reasons, I drew a stratified random sample using Microsoft Excel. A diagram of the stratified random sampling scheme is presented in Figure 5.1. Using a list of all 14,395 drug arrest incident numbers from SLMPD and basic incident characteristics (e.g. arrestee's race, neighborhood number, neighborhood type, etc.), the incidents were first divided into three strata: black neighborhoods (>75% of population is black), white neighborhoods (>75% of population is white), and mixed neighborhoods (<76% black and <76% white). Stratifying the sample by raciallycharacterized neighborhoods ensures that each type of neighborhood is sufficiently represented in the sample and allows for comparison within and across these neighborhood types. This is important since white neighborhoods and arrestees are underrepresented in drug arrests. Thus, this sampling strategy over-samples white neighborhoods and white arrestees and under-samples black neighborhoods and black arrestees. Then, the "RAND" command in Microsoft Excel was used to assign a random, unique number to each drug arrest incident. These random numbers were sorted in ascending order before drawing the appropriate number of drug arrest incidents from the top of the list in each stratum. For example, white neighborhoods constitute 23% of St. Louis neighborhoods, which means that 23% of the desired 1,440 drug arrest reports should come from white neighborhoods (e.g. $1,440 \times 23\% = 331$ reports).

Figure 5.1 Stratified Random Sampling Scheme for Sample of 300 Drug Arrest Reports, 2009-2013



After drawing the desired 1,440 drug arrest incidents, I sent a list of the incident numbers to SLMPD and requested the corresponding drug arrest reports. After receiving, cross-checking, and organizing the data, I began conducting the analysis with the goal of ending once I reached saturation, or the point during analysis when the data do not produce new information (Silverman 2011). Saturation was achieved by the time I analyzed 100 reports since the same themes recurred and no new patterns were detected. However, to facilitate an analysis by neighborhood type and arrestee race and to ensure a sufficient number of cases in the subgroups, I continued coding until I analyzed 300 reports. As shown in Table 5.1, characteristics of the final sample (n = 300)

	Final Sample	Larger Sample	Population
	n = 300	n = 1,440	N = 14,395
Total Incidents	300	1,414 ^a	14,359 ^b
Black N'hoods	122	566	7,521
	41%	40%	52%
Mixed N'hoods	108	528	5,878
	36%	37%	41%
White N'hoods	70	320	960
	23%	23%	7%
Black Arrestees	194	942	10,653
	65%	67%	74%
Vhite Arrestees	106	472	3,706
	35%	33%	26%
Male Arrestees	260	1,207	12,307
	87%	85%	86%
emale Arrestees	40	207	2,052
1 Citialo 1 Hi Cotoco	13%	15%	14%
Arrestee Age	31	30	31
intestee rige	17-64	17-64	17-74
17-29 years	158	807	7,767
17 25 years	53%	57%	54%
30-49 years	124	526	5,699
30 47 years	41%	37%	40%
50+ years	18	81	891
30+ years	6%	6%	6%
Black Officers	71	347	3,841
Black Officers	24%	25%	27%
White Officers	217	998	9,814
ville Officers	72%	71%	68%
Jispania/Othar Paga Officers	11	64	607
Iispanic/Other Race Officers			
officer Verm of Comice	4%	5%	4%
Officer Years of Service	7.87	8.10	8.80
Violent Crime Rate	124.41	124.68	154.16
Property Crime Rate	466.48	467.94	558.84
Possession Arrests	265	1,258	12,714
	88%	89%	89%
Sale/Mftg. Arrests	35	156	1,645
-	12%	11%	11%
Year 2009	65	270	2,401
	22%	19%	17%
Year 2010	48	276	2,597
	16%	20%	18%
Year 2011	71	309	3,417
	24%	22%	24%
Year 2012	58	282	3,195
-	19%	20%	22%
Year 2013	58	277	2,749
	19%	20%	19%

^aBased on 1,414 incidents due to missing data on 26 cases (1%) in SLMPD's spreadsheet ^bBased on 14,359 incidents due to missing data on 36 cases (<0.5%) in SLMPD's spreadsheet

and larger sample (n = 1,440) are closely similar. Characteristics of the final sample and the larger sample are similar to those of the population (N = 14,395), but they differ slightly due to the samples being stratified rather than purely random: black neighborhoods and arrestees are underrepresented in the samples, and white neighborhoods and arrestees are overrepresented. The sample of n = 300 incidents, therefore, is generally representative of the drug arrest incidents that occurred in St. Louis between 2009 and 2013.

DESCRIPTIVE STATISTICS

Table 5.2 Descriptive Statistics of Drug Arrest Incidents by Neighborhood Type ($n = 300$ incidents)				
	White N'hoods	Black N'hoods	Mixed N'hoods	
	n = 70	n = 122	n = 108	
Arrestee Characteristics				
Black Drug Arrests	29% $^{2;3}$	79% ¹	72% 1	
White Drug Arrests	$71\%^{2;3}$	21% 1	28% 1	
Male Arrests	79%	89%	90%	
Female Arrests	21%	11%	10%	
Age of Arrestee	30.05	32.11	30.39	
Neighborhood Characteristics				
Total Drug Death Rate	0.81	1.35	1.06	
Black Drug Death Rate	1.48	0.90	0.92	
White Drug Death Rate ^a	$0.85^{\ 2}$	17.14 ^{1; 3}	1.31^{-2}	
Violent Crime Rate	87.52 ^{2; 3}	176.11 ^{1; 3}	119.01 ^{1; 2}	
Property Crime Rate	307.88 ^{2; 3}	459.27 ^{1; 3}	577.41 ^{1; 2}	
Rented Housing Units	42% ^{2; 3}	58% ¹	$65\%^{-1}$	
Officer Characteristics				
Black Officers	24%	29%	18%	
White Officers	70%	69%	78%	
Hispanic or Other Race Officers	6%	2%	4%	
Years of Service	$9.35^{2;3}$	7.37 1	7.48^{-1}	

two-sample t-test p < .05 (two-tailed tests) or chi square test of independence p < .05

1 = sig differ from white n'hoods 2 = sig differ from black n'hoods 3 = sig differ from mixed n'hoods

^a One case is omitted from the calculation of mean due to a very high white drug death rate of 1,000 per 1,000 white residents Note: Descriptives of the drug death rates and rented housing units are based on descriptives of the population of drug arrests (N = 14,395) since these measures were not attached to the sample of drug arrest incidents

Given the emphasis on racially-characterized neighborhoods in the analysis, it is important to understand differences across neighborhood types. Table 5.2 presents select characteristics of arrestees, neighborhoods, and officers in white neighborhoods (n = 70), mixed neighborhoods (n = 108), and black neighborhoods (n = 122). Using a series of two-sample t-tests and chi square tests of independence, I tested whether visible differences in characteristics across neighborhoods were statistically significant.

There are significantly more white arrestees in white neighborhoods (71%) than in black (21%) or mixed (28%) neighborhoods. The percentage of black arrestees is significantly higher in black (79%) and mixed (72%) neighborhoods than in white neighborhoods (29%). With respect to gender, the majority of drug arrests involved male arrestees. Males comprise 79% of the arrests in white neighborhoods, 90% of arrests in mixed neighborhoods, and 89% of arrests in black neighborhoods, and these differences are not significant. The larger percentage of female arrestees in white neighborhoods (21%) than mixed (10%) and black (11%) neighborhoods is not statistically significant, but it is notable and should be explored in future research. Moreover, the average drug arrestee in white and mixed neighborhoods is 30 years old and is older, but not significantly older, in black neighborhoods (32 years). As noted in Chapter 4, the drug death rate, a proxy for drug involvement, is statistically similar across the neighborhood types. However, whereas the black drug death rate is statistically similar across neighborhood types, the white drug death rate is significantly higher in black neighborhoods (mean = 17.14) than white (mean = 0.85) or mixed (mean = 1.31) neighborhoods. Black and mixed neighborhoods have significantly higher violent and property crime rates and residential instability than white neighborhoods. Turning to

officer characteristics, most of the arresting officers are white. The percentage of black officers making arrests for drugs is higher in black neighborhoods (29%) and white neighborhoods (24%) than mixed neighborhoods (18%). Hispanic officers and officers of other races makeup a small percentage of arresting officers but are more likely to make drug arrests in white neighborhoods (6%) than mixed (4%) or black (2%) neighborhoods. However, there are no significant differences in officer race across racialized neighborhoods. Finally, officers making drug arrests in white neighborhoods have significantly more years of experience (mean = 9.35 years) than those in mixed (mean = 7.48 years) or black (mean = 7.37 years) neighborhoods.

ANALYTIC STRATEGY

To understand the nature of drug enforcement practices, the analysis focused on the pathways to drug arrests by paying special attention to officers' description of the initiation of the drug arrest incident. This stage of the encounter is important because it is the gateway to drug arrests. Encounters can be either citizen-initiated or officer-initiated. Officer-initiated drug arrests are based on officers' discretion to stop, question, and frisk (i.e. conduct a pat down search of citizens' outer surface for weapons) citizens based on reasonable suspicion (*Terry v. Ohio* 1968), and cultural stereotypes linking blacks to drugs, crime, and undesirable behaviors have the most potential to seep into these discretionary decisions (Fridell 2008; Lynch and Patterson 1996). It should be added that citizen-initiated encounters can also involve racial bias because citizens hold pejorative racial stereotypes (Quillian and Pager 2001; Sampson and Raudenbush 2004) that might shape their reports to the police.

The analysis occurred in Microsoft Excel which is the format SLMPD supplied the arrest reports. Each row was an incident, and each column was a field of data, such as the incident number, officer narrative, incident information (e.g. date, time, offense), arrestee's demographics (e.g. race, age, gender, marital status), officer's demographics (e.g. race, age, gender, years of service, education level), and neighborhood information I attached (e.g. racial composition, violent and property crime).

The subjective nature of the analysis can pose threats to the study's reliability since the research is shaped by knowledge of race, neighborhoods, and police behavior and because humans inherently hold personal biases, whether implicit or explicit. To minimize researcher bias and to bolster reliability, I employed a blind analysis of the narratives by removing and hiding demographic information about the suspect, officer, and neighborhood from all narratives and randomizing the sequence of the narratives before analyzing them, leaving only the incident number and officer narrative visible. Therefore, I did not know demographic information about the arrestee, officer, or neighborhood during coding. After coding, I "un-hid" the demographics so I could examine the descriptive statistics and compare pathways to drug arrests within and across neighborhoods and arrestees.

The analysis employed grounded theory methods, which refer to the exploratory, inductive process of gleaning themes that emerge from the data (i.e. "grounded") that do not stem from preconceived notions (Chamberlain 1999; Charmaz 2006). This was important since I was unsure of all the possible pathways to drug arrests. Using this open coding strategy, I began the analysis by reading each drug arrest narrative, extracting text where the officer described how contact initiated between her/him and the suspect, and

placing the extracted text in a new column. Then, I read the extracted references in order to identify all the possible ways police-citizen contact was initiated in these data and finalized mutually exclusive categories. I assessed the similarities and differences between categories to ensure their distinctness and collapsed and expanded them as necessary. After determining the mutually exclusive categories, I reread the drug arrest narratives and assigned each incident to one of the mutually exclusive categories based on the officer's description of the initiation of the drug arrest (Chamberlain 1999; Charmaz 2006; Corbin and Strauss 2007; Silverman 2011). I conducted the beforementioned steps blind. Once I categorized each incident, I "un-hid" the demographic information and examined descriptive statistics to determine the prevalence of the pathways in the data. To understand drug enforcement practices by neighborhood type, I compared and contrasted officer's descriptions of the pathways in white, mixed, and black neighborhoods. To understand drug enforcement practices by arrestee race, I compared and contrasted the pathways between white and black arrestees in the overall data and within each neighborhood racial context.

The following sections describe themes that emerged from the analysis and provide excerpts from some of the narratives. The bolded text in the narratives represents my emphasis and not the officers'. The selected excerpts illustrate recurrent themes in the data, with a few demonstrating exceptional but important issues that are consistent with the theme being discussed. In order to protect the anonymity of the data and to prevent the ability to retrace events, the narratives exclude identifiers and specific details such as the names of officers, streets, and businesses as well as the mentioning of vehicle types

and landmarks. I assigned each incident a random identifying number between 1 and 300 and refer to the incident—and the actors within it—using the identifying number.

PATHWAYS TO DRUG ARRESTS

Six mutually exclusive pathways to drug arrests emerged from the data: pedestrian stops, officer response to citizen reports, vehicle stops, officer surveillance, drug investigations, and buy/bust operations. Figure 5.2 displays the distribution of these pathways. While no pathway represents the majority, the most common way officers initiate drug arrests is via pedestrian stops. Initiating 27% (n = 81) of the drug arrests, pedestrian stops represent proactive policing. Officers use discretion when deciding to stop and interview a person who is walking, standing, or sitting outdoors or who is sitting in a parked vehicle. According to the narratives, officers may initiate a pedestrian stop based on their knowledge about a person, area, or situation, after observing an action they deem suspicious, or when noticing that someone is new to an area.

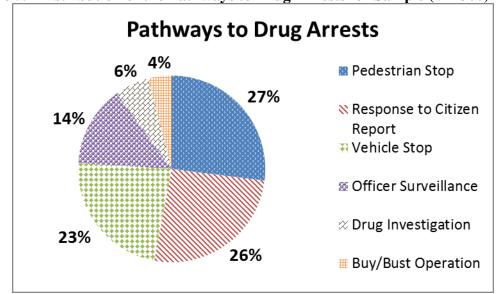


Figure 5.2 Distribution of the Pathways to Drug Arrests for Sample (n = 300)

The second most common pathway to drug arrests is officer response to citizen reports, which initiates 26% (n = 78) of the drug arrests. Officers receive information from citizens about crimes or problems and respond to the reported incidents. Officers either receive information directly from a confidential informant about drug involvement or receive calls for service via radio dispatch. Most of the calls for service are related to drug involvement, involving citizens who call the 911 center to report a person engaged in drug use, sale, or manufacturing. Other calls for service are unrelated to drug activity. For example, some citizens reported nondrug crimes (e.g. burglary, shots fired) or problems (e.g. car accident) to 911 and after officers received the radio assignment and responded to the scene, they inadvertently discovered drugs and made a drug arrest. Whether officers investigate information received from confidential sources, drug-related calls for service, or non-drug-related calls for service, officers' response to these citizen reports represents reactive policing.

The third most common pathway to drug arrests is vehicle stops, which initiate 23% (n = 69) of the drug arrests. Vehicle stops occur when officers stop a vehicle that is currently being operated (e.g. driving, stopped) after observing a traffic violation, a vehicle violation, or suspicious behavior. Failure to use a turn signal, speeding, and failure to stop at a stop sign or red light are the types of traffic violations officers observed in incidents involving vehicle stops. For example:

"We observed a vehicle change lanes without using a turn signal. The vehicle then exited the interstate. I activated my emergency lights and pulled the vehicle over." (#15, black neighborhood, white arrestee, white officer)

Vehicle violations, on the other hand, occur when a vehicle's license plate is expired or not displayed or when the vehicle's headlights are not illuminated. To illustrate a vehicle violation, an officer writes:

"While I was stopped at the intersection, I observed a black vehicle make a left turn. As the vehicle was turning, **I observed that the front headlights were not on**. I immediately drove my marked patrol car behind the vehicle and activated my emergency roof lights and siren." (#40, black neighborhood, white arrestee, white officer)

Many vehicle stops represent proactive policing as officers use discretion about whether to stop a vehicle for minor infractions, such as failure to use signal, or after observing furtive movements. Other vehicle stops represent reactive policing, as officers are responding to more serious violations that could jeopardize public safety, such as speeding or running a stop sign. In a minority of cases, officers initiate vehicle stops after observing suspicious or criminal behaviors, such as drug use in progress. An example of a reactive vehicle stop is when officers

"...were patrolling and observed a silver vehicle, bearing Illinois license plate, driving directly in front of our marked police vehicle. We noticed a strong odor of marijuana emanating from the vehicle and we continued to follow its path...We conducted a traffic stop to investigate the odor." (#167, white neighborhood, black arrestee, white officer)

In this incident, the officers smelled the odor of drugs and reacted by conducting a vehicle stop to investigate.

Officer-initiated surveillance emerged as a unique category, initiating 14% (n = 42) of the drug arrests. Based on the data, officer surveillance is defined as an officer watching a person, vehicle, or area for an extended time, for stated or unstated reasons, before observing a suspicious or criminal act and stopping a person or vehicle to investigate. Oftentimes, officer surveillance involves mobile surveillance in which

officers in covert patrol vehicles follow a vehicle or person. This pathway generally represents proactive policing because a specific target suspect is not identified before officers' initiation of the surveillance, and officers use discretion when determining the person to surveil. Moreover, officer surveillance involves prolonged observation *before* noticing actions that warrant a stop. Thus, the gap between officers' choice to surveil and noticing suspicious behavior is discretionary. To illustrate this pathway, a special units officer patrolling in a covert vehicle describes how he:

"...observed a gray car occupied by a white male parked at the curb in front. As we passed the car I observed the subject exit his vehicle and run up to the front door of the address and enter the house for approximately 5 min." (#287, white neighborhood, white arrestee, black officer)

Similar to other arrests that initiated from officer surveillance, notice that the officers were stationary and watched the person for at least "approximately 5 minutes" with no justification as to why the individual was selected for surveillance. The officer goes on to recount that they "...then observed him exit the front door and run back to his vehicle and enter same. I observed him clutching something in his right hand, which he placed in his right front pants pocket before entering the driver's side of his vehicle." The subject then drove away from the address. The officers followed the subject to another location and conducted a vehicle stop to investigate whether the subject had just left "a possible illegal drug house." During the vehicle stop, the officers smelled marijuana and conducted a computer inquiry of the subject, which revealed an active traffic warrant. A search incident to the arrest for the warrant revealed marijuana.

In many officer surveillance incidents, officers do not explain why they chose to observe a subject for an extended time period. Other times, officers justify their

prolonged surveillance based on knowledge about a specific area. In another incident that initiated from officer surveillance, the officer describes how a specific neighborhood received many complaints about drugs and violent crime and many arrests had been made in the last three months. The special unit officer was operating a covert vehicle and explains that:

"...a multi-family residence has been a location of interest in the neighborhood regarding the aforementioned complaints. Here, I observed 8 to 10 unknown black males standing in front of this location. From our position, I observed one of these black males run to the rear of this location through the west gangway. Finding this suspicious, I drove to the rear of this location in an attempt to observe where this subject was heading. Before I could reach the entrance to this south alleyway, a gold colored truck entered this alley ahead of me. I was able to observe that this vehicle was being operated by one white male driver (arrested subject). I stopped my vehicle in the mouth of this alley and continued watching the white male driver and the black male subject. As I watched, I observed the driver pull his vehicle onto a parking pad located in the rear. Suddenly, I observed this same black male subject appear at the driver's window of the driver's vehicle and a swift hand to hand transaction was conducted between the two." (#215, mixed neighborhood, white arrestee, white officer)

After continuing to observe the subjects, the officer conducted an investigative vehicle stop, which led to the arrest of the suspect for drug possession. In this incident, and in a few other officer surveillance incidents, officers began surveillance of a specific place due to complaints about crime problems. Because the location was targeted for surveillance, those frequenting the location also became subject to the surveillance and faced an increased risk for arrest.

Drug investigations initiate only 6% (n = 18) of the drug arrests but are qualitatively distinct from the other pathways. Arrests stemming from drug investigations are the culmination of a long-term investigation of a predetermined target suspect. Drug investigations ensue for weeks or months as officers gather information and conduct

surveillance on suspects who are usually involved in large-scale drug distribution or manufacturing operations. After officers have established enough evidence, they request and acquire a search warrant from the judge. In these data, drug arrests that stem from drug investigations involve the execution of search warrants by 16-28 officers and detectives from SWAT and special units.

Like drug investigations, buy/bust operations makeup a small percentage of the pathways to drug arrests (4%, n = 12) but are qualitatively distinct from the other pathways. Buy/bust operations occur when supervisors inform officers of increased drug activity in a specific area. To disrupt drug activity, a group of officers deploys buy/bust operations in the area. One of the officers operates in an undercover capacity, posing as a potential drug buyer, and wears a wire that audio records the interaction. The other officers surveil the operation and listen to the audio. Whereas a specific suspect is preselected in drug investigations, a specific target suspect is not predetermined in buy/bust operations. Instead, officers use discretion when picking a suspect for the operation which, in these data, is always a random person who is hanging out in an area. To illustrate the selection of the buy/bust target, officers write:

"Undercover officer observed an unknown black male at the intersection. The detective engaged the male in a conversation. During the conversation, Detective stated he wanted to purchase marijuana. The male advised Detective that he could take him to purchase some marijuana in exchange for ten dollars. The male entered the undercover vehicle and directed Detective to the address." (#32, mixed neighborhood, black arrestee, white officer)

"While driving east, I observed two black males sitting on the north side of the street. I engaged in conversation with one of the subjects. I advised him I wanted to purchase narcotics. He stated he was not in possession of any; however, he provided me with the following phone number and stated he would be in possession of some later." (#41, black neighborhood, black arrestee, black officer)

"Detective **observed** a black male sitting on a street barrier and stopped his vehicle parallel to the subject and asked the subject if he had some 'beans', referring to capsules of heroin. The subject replied 'How many' and the Detective said he wanted four pills. The subject then advised the Detective to pull his vehicle to the curb." (#157, black neighborhood, black arrestee, black officer)

After the undercover officer engages a suspect and asks about buying drugs, the suspect either takes the undercover officer to a location to buy drugs or sells them directly to the undercover officer. The surveillance officers then "bust" the scene as the transaction concludes and arrest the buy/bust suspect.

PATHWAYS TO DRUG ARRESTS BY NEIGHBORHOOD TYPE

Broader policing research suggests that officers engage in different policing practices in different neighborhood contexts. To understand the nature of drug enforcement practices across neighborhood contexts, I analyzed and compared the pathways to drug arrests across white, mixed, and black neighborhoods. The distribution of these pathways across neighborhood types, as displayed in Table 5.3, shows variations in drug enforcement practices across racially-characterized neighborhoods.

Table 5.3 Pathways to Drug Arrests by Neighborhood Type ($n = 300$ incidents)					
	White N'hoods	Black N'hoods	Mixed N'hoods		
	n = 70	n = 122	n = 108		
Pedestrian Stop	19%	31%	27%		
Response to Citizen Report	$46\%^{2;3}$	$19\%^{-1}$	22% 3		
Vehicle Stop	17%	25%	25%		
Officer Surveillance	11%	17%	13%		
Drug Investigation	7%	2% 3	8% 2		
Buy/Bust Operation	0%	5%	5%		
Total	100%	100%	100%		

Chi square test of independence p < .05

 $^{1 = \}text{sig differ from white n'hoods } 2 = \text{sig differ from black n'hoods } 3 = \text{sig differ from mixed n'hoods}$

Drug arrests in white neighborhoods are driven primarily by officer response to citizen reports (46%), which represents reactive policing. This differs from drug enforcement in black neighborhoods, which is driven by pedestrian stops (31%) and vehicle stops (25%) more so than officer response to citizen reports (19%). Drug enforcement in mixed neighborhoods is similar to that in black neighborhoods, being driven by pedestrian stops (27%) and vehicle stops (25%) followed by officer response to citizen reports (22%). Officer surveillance is more likely to be used to initiate drug arrests in black neighborhoods (17%) than in white (11%) or mixed (13%) neighborhoods. Drug investigations are rarer in black neighborhoods (2%) than in white (7%) or mixed (8%) neighborhoods. Buy/bust operations are also rare but occur exclusively in black (5%) and mixed (5%) neighborhoods and never in white neighborhoods (0%). To understand the nature of drug enforcement by neighborhood type, the following sections compare the initiation of drug arrests across racialized neighborhoods. Because drug enforcement in mixed neighborhoods falls in between the other two neighborhood types but is more similar to drug enforcement in black neighborhoods, the comparison focuses on drug arrests in black neighborhoods and white neighborhoods where the contrast is the greatest.

BLACK NEIGHBORHOODS

Consistent with research pointing to more officer-initiated activity in black or crime-prone neighborhoods, the analysis shows that a substantial portion of drug arrests in black neighborhoods initiate from proactive policing practices that manifest as pedestrian stops, vehicle stops, and officer surveillance. The analysis of narratives shows that officers express greater suspicion in black neighborhoods than in white or mixed

neighborhoods, likely because of the high rates of crime and disorder in those communities. In fact, officers patrolling black neighborhoods tend to preface their narratives by citing crime problems the area. To illustrate, when making drug arrests in black neighborhoods, officers often begin their narratives similar to the following:

"This is a high crime neighborhood which has a high call volume for service from concerned citizens complaining of various narcotic offenses, shots fired, assaults, and theft. Citizen complaints for shots fired have been confirmed by this department's 'Shot Spotter' System which records and documents shots fired in the neighborhood. Prior arrests have also confirmed these complaints." (#5, black neighborhood, black arrestee, white officer)

Certainly, high rates of crime and citizen complaints in black neighborhoods explain why police presence is concentrated in those areas. In addition to guiding police deployment, though, crime problems also guided officers' decisions to stop a specific person or vehicle or to conduct surveillance on a specific person, regardless of whether officers observed the subject engaged in suspicious or prohibited behaviors.

"Due to a recent increase in reports of violent crimes and drug activities...we have been assigned to conduct operations in the neighborhood. While patrolling the block we observed 3 to 4 black males standing in the yard. A black male wearing a white T-shirt and blue jeans began to walk south and then west. We conducted a rolling surveillance of the subject..." (#20, black neighborhood, black arrestee, white officer)

"We observed two subjects walking west in the south alley. They then walked south in the east alley. **Due to the violent nature of crimes in the area and gang activity in the area, we approached them** to conduct a field interview." (#31, black neighborhood, black arrestee, white officer)

"As I approached the intersection, I noticed a black male wearing a grey coat and grey hat sitting in front of the vacant structure. **Due to the high volume of illicit drug sales and complaints, I decided to stop and conduct an investigation**." (#222, black neighborhood, black arrestee, black officer)

"The said block is an area plagued by drug sales, gang activity, and violent crime. This area, in the past, has received numerous calls for service for 'suspicious persons selling drugs', 'shots fired', 'shootings', and 'disturbances'. While

turning west, we observed five unknown black males standing and sitting in front of the apartment building. **Due to our knowledge of the area, we elected to conduct voluntary field interviews** with these subjects to determine if they lived in the apartment building or had a legitimate reason for being in front of the apartment building." (#164, black neighborhood, black arrestee, other race officer)

As these incidents show, officers often justified stopping a person or vehicle or conducting surveillance because of the neighborhood crime problem. In addition to high crime in black neighborhoods, the structural characteristics of those communities seem to provide more opportunities for police scrutiny. In the last three excerpts, officers observed subjects near alleys or vacant or boarded buildings. These structures are ripe for criminal activity (Bowers, Johnson, and Hirschfield 2004; Felson 1987; Spelman 1993) and subsequently, officer suspicion. It is a common theme in the data for officers to stop a pedestrian or vehicle or initiate surveillance on someone near an alley or a vacant building, a theme that recurred frequently in black neighborhoods and less so in white or mixed neighborhoods. As discussed in Chapter 3, rapid population declines and white flight in St. Louis left black neighborhoods economically distressed and riddled with physical decay. Signs of physical decay can simply be markers shaping the perceptions of danger and risk (Sherman 1986).

"We proceeded westbound and observed a black male subject standing on the front steps of the said address. It should be noted that this is **a vacant boarded up residence**. The black male subject walked off the front steps towards a black vehicle that was driving eastbound. He waved his hands and yelled but the vehicle didn't stop. Finding this behavior to be suspicious we curbed our marked police vehicle in front of the address to attempt a pedestrian check." (#175, black neighborhood, black arrestee, white officer)

Officers initiating contact with citizens based on neighborhood conditions comports with the perceptions of citizens in qualitative research, especially in St. Louis

(Gau and Brunson 2010), who report that officers judged them based on their neighborhood. In addition to neighborhood crime and features influencing police decision making, the demeanor or appearance of citizens affected officers' decisions to initiate contact. For example, officers initiated pedestrian stops, vehicle stops, and officer surveillance upon noticing behaviors they perceived to be suspicious, such as citizens appearing nervous, making sudden movements, or changing their behavior when noticing the officer's presence.

"While traveling southbound, we observed the male suspect standing outside of a newer model silver car. He was facing southbound and had his back facing us. As we drove closer to him he looked over his left shoulder observing our marked patrol vehicle. He took three steps into the vacant lot where the vehicle was parked, looked back at our vehicle again paused then quickly began to walk south from the vacant lot. This area is known to be frequented by individuals who are engaged in drug sales and use...Believing he might possibly be selling illegal narcotics we stopped to conduct a further investigation." (#216, black neighborhood, black arrestee, black officer)

"We were conducting operations in the said neighborhood. While traveling north, I observed a black female subject standing by a dumpster in the north alley. When I passed her I saw her move behind the dumpster as if she was trying to hide herself. After observing the suspicious activity I pulled into the alley to conduct a voluntary field interview." (#13, black neighborhood, black arrestee, black officer)

"I was travelling east when I observed a blue car occupied by four black males, travelling directly in front of me. I performed a random computer inquiry of the license which revealed no wanteds or warrants... While driving behind the vehicle, I observed the driver continually look back at me through the rear view mirror. He appeared to be nervous and again looked back at me through the driver's side window as he made a left turn into the parking lot. Believing his actions to be suspicious, I followed behind the vehicle onto the lot and curbed it." (#34, black neighborhood, black arrestee, white officer)

"While patrolling near the intersection, we observed a subject riding a bicycle eastbound on the sidewalk. As we approached this subject in our marked patrol vehicle, **he looked over his shoulder in our direction numerous times and attempted to cross the street**, but was unable to due to the traffic. We pulled our vehicle alongside him, at which time I asked the subject if we could speak to him,

to which he responded, 'Why? What's going on?" (#200, black neighborhood, black arrestee, white officer)

Other times, officers initiated contact with citizens after observing a law violation.

"As we approached the stopped vehicles in the outside lane, a black vehicle suddenly turned right, into the northbound shoulder, traveling around two stopped vehicles and then north. I advised Officer of my observations and we followed the vehicle north. We activated our marked police vehicle's emergency lights and siren and curbed it for the observed traffic moving violation." (#37, black neighborhood, white arrestee, white officer)

"We observed a black male leaning out of the opened driver door of a pick-up truck, dumping the inner contents of a cut open cigar onto the street. As we got closer to the vehicle we smelled the odor of marijuana coming from the vehicle. In my experience it is common for individuals who are preparing to ingest marijuana to empty cigars and use the remains to package and consume the drug. Based on my observations and my experience I stopped our patrol vehicle and immediately approached the driver side door where he was sitting." (#67, black neighborhood, black arrestee, black officer)

Related to proactive policing is the greater presence of officers and detectives from special operations units in black neighborhoods than in other neighborhoods.

Whereas patrol officers engage in routine policing, such as responding to radio assignments, enforcing traffic laws, and stopping suspicious persons, the police department deploys special unit officers to target specific problems, such as gangs, narcotics, gun crimes, and burglaries, and "hot spots." Special unit officers sometimes operate covert vehicles and wear plain clothes. Because of the directed focus of these officers, they tend to initiate drug arrests with officer surveillance and investigatory stops, engaging in some of the most invasive proactive policing in the data. A detective from a special unit initiated a drug arrest by officer surveillance, recounting that:

"Detective and I were monitoring this parking lot due to open air drug sales. It should be noted that we have made numerous documented drug related arrests at this location in the past. While parked on the parking lot, we observed suspect #1 and suspect #2 sitting inside of a vehicle while parked at one of the fuel pumps.

While near their location, I overheard suspect #1 talking on a cell phone about what I believed to be drugs, from and unknown source. After listening to his conversation for several more seconds, I entered our vehicle and briefed Detective on what I overheard. Seconds after he ended his phone call, he drove off of the parking lot, travelling north. Believing they were en route to purchase drugs, we conducted a roving surveillance to further the investigation. (#8, black neighborhood, white arrestee, black officer)

Driving an unmarked vehicle, the officers followed the subjects to their destination and observed a black male exit a residence, walk to the driver's side of the vehicle, and conduct a hand to hand transaction with suspect #1. After the transaction, the suspect drove to another location and parked the vehicle. The special unit officers again followed the vehicle, parked their unmarked car, and approached the suspect in the vehicle on foot. When they reached the vehicle, the officers discovered capsules filled with heroin in plain sight and arrested the suspect for drug possession. Like this incident, many special unit officers engaged in proactive policing that involved prolonged surveillance, sometimes following and watching citizens before discovering suspected drug activity.

WHITE NEIGHBORHOODS

Officers also use proactive policing to initiate drug arrests in white neighborhoods but do so less frequently. Pedestrian stops initiate 19%, vehicle stops initiate 17%, and officer surveillance initiates 11% of the drug arrests in white neighborhoods. Given the low levels of decay and crime in white neighborhoods, especially violent crime, officers make few comments about the characteristics (e.g. crime, alleys, vacant buildings) of white communities. Instead, they mostly describe the behavior of citizens, suggesting that in white neighborhoods, citizens' actions guide officer-initiated decisions more so than neighborhood characteristics. For example, an officer driving a bicycle documented that he:

"...observed the parked vehicle occupied by two white males. When I was parallel to the driver's side of the vehicle, I could see suspect #1 putting a green leafy vegetative substance into a rolling paper through the vehicle's front driver window..." (#167, white neighborhood, white arrestee, black officer)

In a separate incident involving a vehicle stop in a white neighborhood, officers engaged in a pursuit after attempting to stop a speeding vehicle (traffic violation) without a license plate (vehicle violation).

"We were traveling north when we observed a black car without plates traveling south at a high rate of speed. We waited for the car to pass us and made a u-turn, activated our lights and siren, and began following the car in an attempt to conduct a traffic stop. While we were following the car it failed to yield to our attempts to stop it and violated a red electric signal. The car continued south where it drove recklessly by weaving in and out of the two southbound lanes without using a turning signal. The car then violated a red electric signal at the intersection and finally stopped." (#232, white neighborhood, white arrestee, white officer)

Moreover, related to the low crime in white neighborhoods is the lower presence of special unit officers who primarily engage in proactive policing. The few special units in white communities tend to focus on nonviolent problems like drug activity, burglary, and prostitution.

The bulk of drug arrests in white neighborhoods initiate from reactive policing practices manifested as officers responding to information citizens reported. For example, in incident #39, officers received a radio assignment from a resident who observed an unfamiliar vehicle outside her residence. She "observed a black male driver and a white male passenger exit the vehicle and walk in an unknown direction" and called the police. Upon arriving to the scene to investigate, the officer approached the vehicle and discovered the white male driver sleeping. He writes:

"As I illuminated the interior of the vehicle with my flashlight, he opened his eyes and he seemed surprised at my presence. I asked him to exit the vehicle so that I

could conduct an interview with him. He complied and as he attempted to exit the vehicle, an object fell from his lap on to the curb creating a sound which drew our attention. I retrieved the object from the ground and discovered it to be a silver spoon containing an unknown type of residue on the bowl. It should be noted that a metal spoon is known for heroin users to prepare heroin to be fed into a syringe." (#39, white neighborhood, white arrestee, black officer)

The officer arrested the suspect for possession of drug paraphernalia. A search of the person and vehicle revealed capsules of heroin and crack cocaine, and the officer additionally charged him for possession of a controlled substance. Like this incident, citizens in white neighborhoods called 911 for problems in their neighborhoods, such as disturbances or when noticing individuals engaged in behaviors they deemed unusual. This theme comports with findings from the quantitative component, which show that white drug arrests are a function of residential stability. Compared to residentially unstable neighborhoods, residents in white neighborhoods have lived in their communities long enough to determine when something is unusual or out of place and call the police. Transient residents might not notice when an "unfamiliar vehicle" is in their community or if something is unusual.

Citizens also aid officers by being confidential informants and providing officers information about ongoing drug activity, especially drug sales and manufacturing.

Confidential informants in white neighborhoods often provided inside information about drug activity, suggesting that they might be acquaintances or customers of the reported drug offender.

"I interviewed a confidential informant (C/I) who informed me of a white male subject. This C/I stated that the subject purchases large quantities of heroin from north St. Louis City and then sells this illegal product in and around south St. Louis City. The C/I provided me with the pedigree information of the subject...On today's date, this C/I again contacted me and informed me that the subject was currently in possession of a quantity of heroin...Based on this

information, we responded to this area in an attempt to locate the subject or the aforementioned vehicle." (#235, white neighborhood, white arrestee, white officer)

"We received information from a confidential source relative to a white female selling narcotics in the area. The **confidential source stated that she typically carries narcotics and keeps the narcotics she sells inside of her bra or jacket pockets**. The confidential source further stated that she was occupying the said vehicle and **parks her vehicle on a parking lot at the intersection to conduct narcotic transactions and sits in the passenger side of the vehicle to try to avoid being noticed by the police." (#277, white neighborhood, white arrestee, white officer)**

"I was contacted by a confidential source who advised me that a black male subject driving the said vehicle was going to be delivering heroin. It should be noted that this C.S. has been proven to be reliable in the past. The **C.S. advised the delivery would take place at approximately 9:00 P.M.** I responded to the area and conducted surveillance on the block." (#148, white neighborhood, black arrestee, other race officer)

In black neighborhoods, officers responded to citizen reports as well, an approach that initiated 19% of drug arrests in those areas. Yet, in addition to the relative infrequency of this reactive approach, citizen reports in black neighborhoods mostly comprise calls for service rather than confidential sources. Confidential sources in black neighborhoods tend to be passersby observing public drug sales in progress rather than acquaintances reporting inside information. To demonstrate the contrast between confidential sources in white and black neighborhoods, below is a typical incident involving a confidential source in black neighborhoods:

"We were in the area when we received information from a confidential source that there was the said vehicle parked in front of the said address occupied by two black males who are selling crack cocaine. Confidential source stated the driver will serve customers, who walk to the side of his vehicle, then he will conduct a hand to hand transaction and then the customer will leave the area. We responded to that area to investigate further, when we observed the vehicle parked in front of the address." (#44, black neighborhood, black arrestee, white officer)

PATHWAYS TO DRUG ARRESTS BY ARRESTEE RACE

To understand drug enforcement practices by arrestee race, I analyzed the pathways to drug arrests for blacks and whites. As shown in Table 5.4, drug enforcement practices across black and white arrestees vary similar to those across black and white neighborhoods. Like white neighborhoods, a large portion of white drug arrests stem from officer response to citizen reports (43%) followed by vehicle stops (20%), and like black neighborhoods, a large portion of black drug arrests stem from pedestrian stops (33%) and vehicle stops (27%). Officers are more likely to use officer surveillance to initiate white drug arrests (17%) than black drug arrests (13%). Drug investigations initiate 6% of white and black drug arrests, but buy/bust operations initiate 6% of black drug arrests and none of white drug arrests (0%).

Table 5.4 Pathways to Drug Arrests by Arrestee Race $(n = 300 \text{ incidents})$				
	White Arrestees $n = 106$	Black Arrestees $n = 194$		
Pedestrian Stop	14%*	33%*		
Response to Citizen Report	43%*	17%*		
Vehicle Stop	20%	25%		
Officer Surveillance	17%	13%		
Drug Investigation	6%	6%		
Buy/Bust Operation	0%*	6%*		
Total	100%	100%		

^{*}Significant race differences based on chi square test of independence p < .05

BLACK ARRESTEES

Officers tend to initiate drug arrests of black subjects using proactive policing by stopping pedestrians and vehicles and conducting surveillance. They justify the stops for reasons similar to those in black neighborhoods: because of high levels of crime in the area, observing subjects near alleys or vacant dwellings, and observing behaviors they

believe are suspicious. Behaviors deemed suspicious by officers included a wider range for black arrestees than white arrestees, including much more trivial suspicions. As a special unit officer on patrol in a mixed neighborhood recounts:

"While travelling east in the south alley we observed two subjects standing in the alley. Due to my prior experience working in that area I know it to be a vacant residence and frequent location for narcotics sales. As we continued to approach I observed suspect #1 to be clinching his waistband with his right hand. Through prior training and experience I know it to be common for armed gun men to hold their waistband in order to maintain retention of a firearm in the absence of a holster. Believing suspect #1 could be in possession of a concealed firearm, we decided to conduct a pedestrian check to further investigate." (#184, mixed neighborhood, black arrestee, white officer)

In this case and in many, this officer describes several factors that influenced the pedestrian stop, including the officer's prior knowledge of the area and the presence of subjects near an alley and a vacant residence. The "suspicious behavior" the officer described was the subject clinching his waistband. Believing the subject was concealing a weapon, the officer initiated a pedestrian stop, asked the subject to raise his hands, and conducted a pat down search for "officer safety" (#184, mixed neighborhood, black arrestee, white officer). The search revealed that the subject did not possess a weapon, as the officer believed. However, during the frisk, the officer found a baggie of crack cocaine, which resulted in a drug arrest. Similarly, a patrol officer in a black neighborhood initiated a pedestrian stop after observing a subject "clutching at the left side of his waistband as if he were trying to maintain retention of an unknown object" (#231, black neighborhood, black arrestee, white officer) and believed the subject possessed a weapon. A pat down search revealed this subject also did not possess a weapon, but the officer instead found heroin and arrested the subject for the drug crime. Characteristic of urban black culture, it is common for black males who wear sagging

pants to hold their waistband. Officers deeming these behaviors as suspicious might have experience correctly identifying weapon holders who clutch their waistbands.

Nevertheless, these false perceptions of danger exemplify the concept "symbolic assailant," meaning police misconstrue a person's mere attire or demeanor as suspicious or a potential threat (Jones-Brown 2007; Skolnick 1966). In these data, no white arrestee was stopped for these or similar reasons.

Sometimes officers' suspicions were incorrect, like in these incidents, particularly in incidents involving black subjects. In incident #186, officers responded to a radio assignment for an assault shooting in a black neighborhood. Upon arriving to the location, the officers met with the shooting victim, gathered a description of the shooter and his vehicle, and began canvassing the area. The officers observed a vehicle they thought matched the description and conducted a vehicle stop. The arresting officer goes on to write that he:

"...ordered the driver to let all of the windows down on the vehicle and to show me his hands, he complied. I then ordered the front seat passenger to slowly exit the vehicle and walk back to me. Upon securing the driver I observed a clear plastic bag containing a green vegetable leafy substance sitting on the center console of the front seat in plain view, which I believed to be marijuana. An extensive search of the vehicle revealed no other illegal drugs and a weapon was not located. The victim was then brought to the scene to identify the vehicle as well as the driver and passenger to determine if this was the suspect wanted for the Assault 1. After viewing the subjects and the vehicle, the victim indicated that this was not the vehicle or the person(s) responsible for the shooting." (#186, black neighborhood, black arrestee, black officer)

While the driver was not the correct suspect for the shooting incident, the mistake led to the inadvertent discovery of drugs and then a drug arrest. The arrestee commented that he and his girlfriend "were just riding around and we did not have anything to do with no shooting. I was about to fire up [light a marijuana cigar] and smoke some green" (#186,

black neighborhood, black arrestee, black officer). Officers' unfounded suspicions of some black citizens seem to comport with the perceptions of black citizens in prior research who report negative experiences with the police, especially those in St. Louis, who believe they "...routinely attracted police attention regardless of whether they were involved in criminal or suspicious activities" and that police "harass [them] constantly for no reason" (Brunson and Weitzer 2009, 866). While officers in these encounters hold what they believe to be sufficient reasonable suspicion to stop and search citizens, these encounters can easily be interpreted as aggressive and harassing, especially from the perspective of citizens who are stopped because they were simply frequenting a crimeridden area, clinching their waistband, or falsely suspected as a criminal. The tendency to initiate contact with black citizens—and not white citizens—for these reasons constitutes bias, and this pattern likely contributes to the overrepresentation of blacks and the underrepresentation of whites as drug arrestees.

After initiating contact with suspects during a pedestrian or vehicle stop or after conducting surveillance, officers sometimes immediately conducted a pat down search for the stated purpose of officer safety, as some officers justified. Officers often discovered drugs during those frisks and made an arrest for drug possession. Other times, officers discovered drugs in plain sight upon approaching subjects. In many plain sight incidents involving black arrestees, officers discovered drugs during suspects' unsuccessful attempts to conceal contraband.

"I observed a silver car violate the electric signal located at the intersection. We activated our emergency lights and stopped the vehicle. As I approached the vehicle from the passenger side, I observed the passenger side rear occupant discard a small clear plastic baggie to the floor board at his feet. Do [sic] to

my past experiences, it is known to me that illegal narcotics are commonly packaged in this manner." (#84, black neighborhood, black arrestee, white officer)

"The car, which appeared to be traveling at a high rate of speed, stopped at the red traffic signal. Without activating its turn signal, the car turned right and continued onward. We activated our visor lights and siren and attempted to curb the vehicle. Upon seeing us, the car, which was stopped at the red traffic signal, made a quick right turn. As the car was beginning to make the right turn, we observed an unknown item be thrown from the driver's window and fall to the street...I responded back to the area where we had observed the unknown item fall from the vehicle. Upon reaching the area, I located a clear plastic bag containing numerous red and clear gelatin capsules filled with suspected heroin." (#38, black neighborhood, black arrestee, black officer)

"As we were travelling westbound, we observed an unknown male and an unknown female loitering in front of a vacant four family residence. We decided to conduct a voluntary field interview of the listed subjects. As I curbed our unmarked vehicle next to the female and stated 'Police' I observed the female turn to the left and conceal her left hand from view. I advised her to show me her left hand at which time **I observed her drop a small item from her left hand**. I exited my vehicle and illuminated the ground with my flash light near her feet. I observed a small white chunky substance lying on the sidewalk clear from debris which I believed to be crack cocaine." (#241, black neighborhood, black arrestee, white officer)

If officers didn't discover drugs in plain sight or from *Terry* frisks, they inadvertently discovered them after arresting a subject for bench warrants, many being traffic-related, and conducting a search. A small fraction of white arrestees had active arrest warrants, but the vast majority of black drug arrestees had arrest warrants from various jurisdictions throughout the St. Louis metropolitan area. The ubiquity of bench warrants is overwhelming, but the racial disparity among them is unsurprising given blacks' disproportionate exposure to the justice system, poverty, and inability to pay fines. Similarly, a recent study of police stops in nearby Ferguson, Missouri found that blacks were twice as likely as whites to be arrested during traffic stops, mostly because of arrest warrants (Ghandnoosh 2015).

Sometimes officers became aware of the arrest warrants only after their discovery of drugs. Yet in many investigatory stops of black subjects, arrests for active warrants led to the inadvertent discovery of drugs and ultimately a drug arrest. After officers stopped a person or vehicle, they requested the subjects' identification card or pedigree information and conducted a computer inquiry. More often than not, the computer inquiry revealed active bench warrants. A search incident to arrest for the warrants revealed subjects to be in possession of drugs. Officers additionally charged them for the drug crime. In the before-mentioned pedestrian stop of the male and female subjects (#241), the female subject was arrested for possession of crack cocaine because officers discovered she had drugs in plain sight. The male subject did not have drugs in plain sight; however a computer inquiry "...revealed two active city bench warrants for street demonstration" (#241, black neighborhood, black arrestee, white officer). The officer arrested the male subject for the warrant, and a "...search incident to arrest revealed a silver pipe burnt at both ends, commonly referred to as a 'crack pipe' in his left front pants pocket" (#241, black neighborhood, black arrestee, white officer). He was additionally charged for possession of drug paraphernalia. Inadvertent drug arrests that stemmed from arrests for bench warrants were especially common in many vehicle stops of black drivers. To illustrate a typical inadvertent scenario, an officer from incident #80 describes initiating a vehicle stop after observing the vehicle violate the stop sign.

"As we approached the subject, I observed a vehicle violate the northbound stop sign. I turned behind the vehicle and activated my emergency lights. The subject immediately curbed the vehicle. I approached the driver and asked for identification and insurance. He provided me with his state I.D. I returned to my vehicle to conduct a computer inquiry. A REJIS search revealed ten active warrants." (#80, black neighborhood, black arrestee, other race officer)

The driver was arrested for the active warrants. During the search incident to the arrest, officers discovered him to be in possession of marijuana and additionally charged him for the drug crime. In another incident, officers received a radio assignment for a car accident. In responding to the car accident, the officers conducted a computer check on one of the drivers, which

"... revealed 5 active city bench warrants and a prior history of arrest was indicated. I informed driver #1 she was under arrest for her 5 active city bench warrants...[a female officer] searched driver #1 incident to her arrest and found a knotted plastic baggie containing 6 white tablets, with the number 512 on each tablet, which I believed to be oxycodone. I told driver of vehicle #1 she would be additionally charged with Violation of the Missouri Controlled Substance Law." (#125, mixed neighborhood, black arrestee, white officer)

In a separate incident, an officer observed a black subject standing near a parked vehicle and initiated a pedestrian stop "due to the numerous calls for burglaries and drug activity in the area," and computer inquiry "revealed an active warrant from this department" (#177, black neighborhood, black arrestee, white officer). A search incident to the arrest for the warrant revealed the subject to be in possession of marijuana, which resulted in a drug charge. All in all, the ubiquity of arrest warrants among blacks seems to precipitate secondary punishments. Blacks' disproportionate contact with the justice system increases their risk for arrest warrants, and arrest warrants widen the net for more serious criminal justice involvement, such as incurring a drug arrest and possibly a conviction and incarceration.

Just as drug arrests in black neighborhoods involve a greater presence of special unit officers than white neighborhoods, special unit officers were more likely to initiate black drug arrests than white drug arrests. Another policing practice used differentially

for blacks and whites was buy/bust operations. A relatively rare policing strategy in these data, buy/bust operations occur exclusively in black and mixed neighborhoods.

According to my interview with a high-ranking SLMPD official, SLMPD typically deploys buy/bust operations to areas that have numerous complaints from citizens about open air drug activity. This logic is consistent with data from the quantitative component of this dissertation, which show that black neighborhoods, followed by mixed neighborhoods, have the highest rates of drug-related calls for service in the city. This would explain why buy/bust operations are deployed in black and mixed communities. The official also shared that he believed buy/bust operations were a fruitful way to disrupt drug markets, gather intelligence on serious drug rings, and, because these interactions are recorded, "present solid cases to prosecutors." While buy/bust operations might be advantageous for these reasons, one has to question the equity of this approach since they are not used to initiate drug arrests in white neighborhoods or of white subjects. Thus, white drug markets are immune from such disruption.

As mentioned earlier, buy/bust officers use discretion when selecting a subject to deceive for the undercover operation. The subject is always a random person hanging out in the target area, and in these data, the random person is always a black citizen; all of the drug arrests that stem from buy/bust operations involve a black arrestee¹³. Thus, buy/bust operations are another policing strategy from which white citizens, and not black citizens, are immune.

¹³I also conducted a keyword search of the narratives in the dataset for the larger sample of 1,440 incidents. Of all the buy/bust operations in the 1,440 incidents, only one was used to initiate a drug arrest of a white arrestee, and it was conducted in a white neighborhood.

After the undercover officers engages a subject during the buy/bust operation and asks about buying drugs, sometimes the subject would directly sell the undercover officer the drugs. For example:

"Detective engaged the subject and asked him if he had a 'dub'. 'Dub', is a common street name for twenty dollars worth of narcotics. The subject went back to his vehicle and appeared to be retrieving marijuana to sell Detective. The subject exited his vehicle and walked over to Detective and took a seat on the front passenger side. At this time the subject traded two baggies of suspected marijuana for forty dollars of our pre-recorded buy money. Detective announced our pre-arranged verbal indicator letting near-by detectives know that the deal was complete." (#173, mixed neighborhood, black arrestee, black officer)

In other instances, the arrested subject was a "connect," or an intermediary between a potential drug customer and drug dealer.

"Detective asked subject #1 if he had a twenty for some 'bud.' 'Bud' is a common street name for marijuana. Subject #1 told Detective that he knew where he could get him something and they both went to the covert vehicle and drove east. Detective and subject #1 exited the covert vehicle and walked towards a group of black males sitting on park benches. Detective gave subject #1 forty dollars of our pre-recorded SLMPD buy-money and subject #1 engaged another black male subject who was sitting on the park bench wearing a black t-shirt and blue jeans. Subject #1 told Detective that subject #2 had some 'hard.' 'Hard' is a common street name for crack cocaine. Subject #1 conducted a hand-to-hand transaction with subject #2, trading the forty dollars of our SLMPD buy-money for two white chunks of suspected crack cocaine." (#256, mixed neighborhood, black arrestee, black officer)

Both the connect and dealer were arrested for drug distribution. Like these two incidents, the buy/bust operations in the data involve small drug transactions ranging from \$20-\$50 worth of drugs. Unless SLMPD targets these low-level drug dealers as an entryway to more serious drug markets, the cost effectiveness of buy/bust operations might be questionable.

WHITE ARRESTEES

White arrestees were generally exempt from the aggressive policing practices their black counterparts experienced. Pedestrian stops initiated only 14% of their arrests, officer surveillance initiated 17%, and vehicle stops initiated 20%. Special unit officers initiated very few white drug arrests compared to black drug arrests, and white drug arrestees were exempt from buy/bust operations. Rather, a substantial portion of white drug arrests stem from reactive policing styles as officers responded to reports from citizens. Confidential sources and calls for service included information about white drug offenders and other problems (e.g. disturbances, demonstration) that led to the arrest of white suspects. One common problem citizens reported was their observations of white subjects sleep, high, or using drugs in public.

"...We were further informed via dispatch that a white male and white female were passed out in the front seat of this suspicious vehicle. Upon our arrival we observed a **white male slumped in the driver's seat, and a white female slumped in the passenger seat**. I observed a syringe on the lap of the sleeping male as well as another syringe, containing a brown substance, on the lap of the sleeping female." (#140, white neighborhood, white arrestee, other race officer)

"I received a radio assignment for 'suspicious occupants of an auto.' Upon our arrival, we observed the **suspect slumped over the wheel of his vehicle**. As we approached the vehicle we observed that the driver's window was open. This allowed us to wake up the suspect by reaching through the window and gently shaking his arm and calling out to him. During this initial interaction, I observed 6 capsules, which I believed to be heroin, in the driver's side arm rest of the door." (#281, white neighborhood, white arrestee, white officer)

"I received a call for 'suspicious person/drugs'. The caller advised that there was a white male wearing...and a white female wearing...doing drugs inside of a port-a-potty. Upon my arrival I observed a white male who matched the description of the suspect given by the dispatcher...I detained him pending further investigation. While doing a pat down search, I asked him if he had anything on him that he shouldn't have, to which he spontaneously stated, 'Yeah I have some shit in my cigarette pack in my right front pants pocket.' I then asked what he

meant by 'shit' to which he stated, 'Heroin.'" (#116, white neighborhood, white arrestee, white officer)

Not only did citizens observe white subjects sleeping or high in public and call the police, officers also observed such behaviors and initiated contact with white subjects. Thus, this pattern is also observed in some pedestrian and vehicle stops and officer surveillance. In incident #36, an officer noticed a car parked in the middle of the street and recounts that:

"A white male subject was sitting in the driver seat of the vehicle with his head leaning against the driver side window. A white female subject was sitting in the passenger seat of the vehicle and appeared to be lethargic, her pupils were dilated and her head was rolling from side to side. I observed a spoon that appeared to be coated with white residue lying on the center console of the truck. I also observed a syringe with what appeared to be a light brown liquid, which I believed to be heroin, lying on the driver seat next to the male and a syringe that was uncapped lying on the passenger seat next to the female...Medic 2 arrived at the scene and began attempts to revive the female. She was given Nar-Can and became responsive immediately. I informed the female she was under arrest for 'VMCSL – Possession of Paraphernalia'" (#36, white neighborhood, white arrestee, other race officer)

Before the ambulance transferred the female suspect to the hospital, the officer informed her that he would apply for a warrant for her arrest. The male subject was arrested for possession of drug paraphernalia and a controlled substance. In a separate incident, an officer conducting surveillance of a restaurant parking lot observed "a subject walking to the restaurant who seemed to be extremely intoxicated" (#50, mixed neighborhood, white arrestee, white officer), which led to the person's arrest for possession of "an off white rock substance" that appeared to be crack cocaine.

This theme of public intoxication is specific to white arrestees and not black arrestees and might be a function of whites' tendency to use illegal hard drugs like heroin, which have side effects consistent with the behaviors of the aforementioned

subjects. The quantitative component of this dissertation (Chapter 4) shows that whites are significantly more likely to use hard drugs than blacks, as measured by the race-specific drug death rate. Further, recent national-level data confirm that whites' heroin use rates nearly double blacks' heroin use rates (Jones et al. 2015).

Recall in an earlier excerpt a confidential informant told the police that the white suspect, "purchases large quantities of heroin from north St. Louis City [black neighborhoods] and then sells this illegal product in and around south St. Louis City [white neighborhoods]" (#235, white neighborhood, white arrestee, white officer). In another narrative, a special unit officer alluded to the same theme during his surveillance of 8-10 black males standing in front of a residence. Upon noticing a white driver nearing the residence, the officer observed what he believed to be a hand-to-hand transaction between a black subject and the white driver. The officer conducted a computer check of the vehicle's license plate and found it to be registered to an address in St. Louis County (predominately white). The officer adds that, "During narcotic investigations, I have found it common for people who do not reside in Saint Louis City to respond to the city limits to purchase narcotics" (#215, mixed neighborhood, white arrestee, white officer). Notice the officer's use of neighborhood belonging as a synonym for race.

Corroborating this theme is a statement from the SLMPD official and data from the quantitative component of this dissertation. The SLMPD official stated that it is common for white citizens from south St. Louis, St. Louis County, and Illinois to travel to black neighborhoods in St. Louis city to buy and use drugs because they can easily hide among the disorder in those communities. Additionally, the quantitative component

shows that the white drug death rate is significantly higher in black neighborhoods than in white or mixed neighborhoods. Together, this evidence shows that whites travel to black neighborhoods to engage in drug activity. No evidence shows a pattern of black drug offenders travelling to specific areas to commit drug crimes.

INTERACTION BETWEEN RACE AND PLACE

Given the intricate link between people and places, drug enforcement practices by arrestee race may simply reflect drug enforcement practices in the corresponding racialized neighborhood. It is sensible, for example, that black arrestees and black neighborhoods tend to be subjected to proactive policing just as white arrestees and white neighborhoods tend to be subjected to reactive policing. To understand the interaction between race and place and to better decipher whether racial differences in drug enforcement practices are more so function of race versus place, I analyzed pathways to drug arrests by arrestee race in each neighborhood context. This race-place analysis also helps elucidate findings from the quantitative component, which show racial profiling in drug enforcement, as citizens face a greater risk for drug arrests in neighborhoods that mismatch their race.

Table 5.5 Pathways to Drug Arrests by Arrestee Race in Each Neighborhood Type $(n = 300 \text{ incidents})$								
	White 1	N'hoods	Black N'hoods		Mixed N'hoods			
	(n = 70)		(n =	122)	(n = 108)			
	Black	White	Black	White	Black	White		
	Arrestees	Arrestees	Arrestees	Arrestees	Arrestees	Arrestees		
	(n = 20)	(n = 50)	(n = 96)	(n = 26)	(n = 78)	(n = 30)		
Pedestrian Stop	30%*	14%*	35%*	15%*	32%*	13%*		
Response to Citizen Report	25%*	54%*	17%	27%	15%*	40%*		
Vehicle Stop	25%	14%	23%	35%	28%	17%		
Officer Surveillance	10%	12%	16%	23%	10%	20%		
Drug Investigation	10%	6%	3%	0%	8%	10%		
Buy/Bust Operation	0%	0%	6%	0%	6%	0%		
Total	100%	100%	100%	100%	100%	100%		

^{*}Significant race differences within neighborhood type based on chi square test of independence p < .05

Table 5.5 presents the distributions of the pathways to drug arrests by arrestee race in white, black, and mixed neighborhoods. At least three patterns are noteworthy. First, the table shows that within the same neighborhood context, black and white drug arrests are initiated from different policing practices. Stated differently, when holding neighborhood racial context constant, arrestee race matters. In mixed neighborhoods, for example, where the black and white population sizes are comparable and crime rates are relatively moderate, black drug arrests tend to be initiated by pedestrian stops (32%) followed by vehicle stops (28%), and white drug arrests tend to be initiated by officer response to citizen reports (40%). Second, consistent with the preceding analysis by race, black drug arrestees are more likely than white drug arrestees to be subjected to investigatory stops, regardless of the neighborhood racial context. Third, patterns for white drug arrestees in white and mixed neighborhoods are similar to those from the preceding analysis: officer response to citizen reports is the modal pathway to drug arrests for white arrestees (54% and 40%, respectively). In contrast, in black neighborhoods, white drug arrests tend to be initiated by vehicle stops (35%), followed by officer response to citizen report (27%).

Reasons for officer-initiated pedestrian and vehicle stops and officer surveillance of black subjects are similar to those in the preceding analysis of black drug arrestees. However, the justification for officer-initiated contact of black arrestees seems to differ across racialized neighborhoods. Compared to black or white neighborhoods, initiation of drug arrests of blacks appears to be based on more minor justifications in mixed neighborhoods. For example, as a patrol officer in a mixed neighborhood describes:

"While patrolling the area due to recent robberies and car break-ins, I observed a black male subject walking south, which I did not recognize from the neighborhood. I approached the subject to conduct a field interview report. Upon making contact with the subject he stated, 'What do you want, why are fucking with me? I don't have nothing for you. I don't have any warrants.' I advised him I was conducting a field interview. I conducted a pat down search of the subject for our safety. While conducting the search of his pants I felt a hard cylinder object inside his left pants pocket, consistent with a utensil used for smoking crack." (#193, mixed neighborhood, black arrestee, white officer)

The officer's account reiterates a few themes. First, notice the officer justified his presence based on increases in robberies and car break-ins in the area. Second, the officer initiated the pedestrian stop because he "did not recognize [the subject] from the neighborhood" as opposed to observing the suspect engaged in reasonably suspicious actions. Third, the discovery of drug paraphernalia was incidental to the discretionary stop; the officer conducted a *Terry* search and discovered the crack pipe, which resulted in the drug arrest. The subject's statements that the officer was "fucking with" him and he "[didn't] have any warrants" attest to the seemingly arbitrary nature of the officer-initiated contact. Officers also initiated drug arrests of blacks in mixed neighborhoods based on public order or nuisance problems. A patrol officer writes:

"I observed several black male subjects sitting on a bench in the southwest portion of the park. I noticed what appeared to be several beer cans situated beneath the park bench where these subjects were sitting. Due to my knowledge of the parks in this area being the subject of nuisance crimes in the past and believing the subjects seated on the bench were drinking alcoholic beverages illegally, I decided to conduct pedestrian checks of these subjects. I exited my patrol vehicle and walked toward the subjects...Believing these subjects were all involved with the illegal consumption of alcoholic beverages in a park, I detained the subjects for the purpose of an investigation. I then began my investigation by requesting the identification of the subjects to which subject #1 stated, 'I have warrants on me'...the radio dispatcher replied that subject #1 had active bench warrants for nuisance ordinance and trespassing on private property. I placed him under arrest for the indicated charges. During a search incident to arrest I located and then removed a small cellophane bag containing a green vegetable substance

in the left front pants pocket..." (#220, mixed neighborhood, black arrestee, white officer)

This excerpt illustrates officers' enforcement of public order and how arrests for bench warrants pave the way for drug arrests for blacks.

As mentioned previously, many white drug arrests initiated from citizens reporting public intoxication or public drug use by white subjects. When analyzing white drug arrests across racialized neighborhoods, this theme again emerged, showing that public drug use by whites was rampant in black neighborhoods. Public drug use by white subjects in black neighborhoods was detected by citizens who called the police because they observed a vehicle occupied "by a white male who was injecting narcotics" (#99, white officer), "two white males using heroin in the parking lot" (#71, white officer), or "subjects were occupying a vehicle in the rear using and dealing drugs" (#174, white officer). Officers also detected public drug use among white subjects in black neighborhoods after conducting surveillance or initiating pedestrian or vehicle stops, such as an officer who conducted an occupied vehicle check and "could observe both the driver and the passenger's heads were looking down" and observed the driver "...with a silver spoon in his left hand and a bottle of water in his right hand" (#224, white officer). While public drug involvement by white subjects also occurred in white and mixed neighborhoods, this theme was consistent with a substantial portion of white drug arrests in black neighborhoods.

Table 5.5 also shows that regardless of neighborhood type, white drug arrests are more likely to be initiated by officer surveillance than black drug arrests, especially in black and mixed neighborhoods. Moreover, vehicle stops were more likely to initiate

white drug arrests in black neighborhoods (35%) than in white (14%) or mixed neighborhoods (17%). Officers initiated white drug arrests in black neighborhoods via vehicle stops after observing vehicles that "...violate the stop sign" (#160, white officer) or "change lanes without signaling" (#162, white officer). After the vehicle stops, officers would then observe drugs in plain sight or furtive movements, which led to a search and the drug arrest. In many incidents in black neighborhoods, officers became suspicious when observing white subjects sitting in a vehicle for long periods of time, probably because officers, who are aware of white drug involvement patterns, suspected them to be waiting to conduct a drug transaction. To illustrate, a special unit officer initiated surveillance when observing a white subject

"...sitting inside her vehicle while parked on the parking lot. She sat in her vehicle approximately ten minutes without making any attempts to exit same or enter any business. She was observed using her cell phone and constantly looking around as if she was waiting on someone to arrive. Seconds after completing her last phone call, she then left the lot and proceeded to another location where she sat inside her vehicle for approximately 5-7 minutes; again, without exiting the vehicle and looking around the area as if she was waiting for someone. Believing she travelled to a more secure location to purchase illegal narcotics, we maintained surveillance on her. Shortly thereafter, the driver of a brown car pulled directly behind the female subject's vehicle. After parking the vehicle, we observed the male subject exit his vehicle and walk to the passenger side of the female's vehicle where he sat down in the front passenger seat. Believing a drug transaction was possibly occurring, we approached the vehicle on foot." (#65, black neighborhood, white arrestee, black officer)

The officers observed two white, rock-like substances in plain sight and arrested the female subject. Notice the officers surveilled and followed the subject for at least 15 minutes before observing the drug transaction and approaching the subject.

DISCUSSION

The qualitative component of this dissertation explored the nature of drug enforcement practices, based on police accounts, with the goal of understanding how drug enforcement practices might contribute to racial disparities in drug arrests. Overall, the analysis revealed that drug enforcement practices are largely a byproduct of broader law enforcement activities and SLMPD's aim to reduce disorder and more serious crimes, such as violence. Drug enforcement that leads to arrests involves few concerted drug disruptive efforts, such as drug investigations (6%) and buy/bust operations (4%). Instead, the vast majority of drug arrests initiate for reasons unrelated to drugs, and officers' discovery of drug activity is largely incidental to pedestrian stops, vehicle stops, officer surveillance, and even some responses to calls for service. Moreover, the analysis revealed the multifaceted nature of drug arrest incidents. Each encounter contained different variables that officers must weigh into their equation of suspicion and assessment of potential threats to public order (i.e. subjects in groups versus alone, pedestrians or vehicles near alleys and abandoned buildings, people hanging out, time of day, etc.). Of interest to this study, however, is the extent to which neighborhood context and arrestee race shape officers' decision-making and activities in drug arrest incidents.

Echoing research on broader policing practices, (Bass 2001; Black 2010; Epp, Maynard-Moody, and Haider-Markel 2014; Fagan and Davies 2000; Ghandnoosh 2015; Golub, Johnson, and Dunlap 2007; Smith 1986; Terrill and Reisig 2003; Weitzer 2000), the analysis showed that drug enforcement practices varied across racialized neighborhoods and by arrestee race. Drug arrests in black neighborhoods and of black suspects commonly involved officer-initiated, proactive policing strategies manifested as

pedestrian stops, vehicle stops, and officer surveillance. On the contrary, drug arrests in white neighborhoods and of white suspects were largely initiated by reactive policing practices, as officers responded to information reported to them by confidential informants and calls for service. Drug enforcement in mixed neighborhoods was more similar to drug enforcement in black neighborhoods than white neighborhoods, often being initiated by proactive policing. It is important to note that because of the stratified, random sampling of arrest reports, white neighborhoods and white arrestees were overrepresented and black neighborhoods and black arrestees were underrepresented in the analysis. This means that neighborhood and racial differences in the pathways to drug arrests—the use of proactive versus reactive strategies—are even greater in the population of drug arrest incidents.

Officers in black neighborhoods generally expressed more suspicion, were keen to the high levels of crime and disorganization in those communities, and justified their initiation of drug arrests based on neighborhood characteristics (e.g. crime, vacant or boarded buildings, alleys), even when subjects were not engaging in prohibited behaviors. In addition to neighborhood characteristics, officers initiated drug arrests in black neighborhoods when observing illegal actions, such as speeding or public drug use, or behaviors they deemed suspicious. However, suspicious behaviors included a wider range of actions for black neighborhoods and black citizens than white neighborhoods and white citizens. Some of these suspicions were trivial and, when investigated, some suspicions were unfounded. In addition, drug arrests in black and mixed neighborhoods and of black arrestees involved more officers and detectives from specialized units and buy/bust operations than white neighborhoods and white arrestees. Similar to citizens'

perspectives in prior research, residents from black and mixed neighborhoods in St. Louis report that, "policing in their neighborhoods primarily consisted of pedestrian and vehicle stops by patrol officers and specialized units" (Brunson and Weitzer 2009, 867). In contrast, proactive drug enforcement in white neighborhoods and of white citizens was relatively infrequent and tended to be based on more overt infractions and citizens' behaviors.

Black arrestees were subject to more aggressive, proactive policing strategies, regardless of the neighborhood racial context, which suggests that arrestee race supersedes neighborhood context. White arrestees were generally immune from such aggressive policing strategies, except in black neighborhoods where officers found them suspicious. This is likely because of the common knowledge that white drug users travel to black neighborhoods to buy drugs. Indeed, in prior research, white residents in St. Louis reported less contact with the police, except they experienced police harassment in black neighborhoods or in the company of black friends (Brunson and Weitzer 2009, 866). Related to race differences in drug involvement patterns, the analysis showed a pattern of white drug arrests being initiated when citizens or officers observed white subjects sleeping, intoxicated, or using drugs in public. This theme was especially pronounced in black neighborhoods. Nevertheless, in white and mixed neighborhoods, white drug arrests were largely initiated when officers responded to information citizens provided, showing the important roles citizens play in shaping drug enforcement.

Another important theme that emerged was related to racial differences in bench warrants. Although both white and black subjects had active bench warrants on file, conducting computer inquiries on black subjects more often than not revealed active

arrest warrants. In many cases, arrest warrants made blacks vulnerable to drug arrests as officers would make an investigatory stop, conduct a computer inquiry, become aware of the warrant, arrest the subject for the warrant, and inadvertently discover drugs during a search for the warrant arrest. Thus, blacks' disproportionate contact with the legal system differentially exposes them to bench warrants and widens the net for more serious criminal justice contact, such as a drug arrest.

Proactive policing involves greater discretion than reactive policing. Neighborhood and race differences in the use of proactive drug enforcement could be attributed to a variety of factors. For example, it is possible that white neighborhoods have fewer pedestrians and loiterers than black neighborhoods, which might explain why pedestrian stops are infrequent in white neighborhoods and among white citizens. It is also possible that the differential use of discretionary practices reflect officer bias, especially in light of officers' justifications for the proactive encounters. It is beyond the ability of the analysis to discern whether neighborhood and racial differences in drug enforcement practices reflect intentional or implicit racial biases. As mentioned earlier, officers have incentives to avoid documenting racially-motivated policing and misconduct in drug arrest reports (Skogan and Frydl 2004). Hence, in no narrative did officers justify initiating contact with citizens based on race, nor did officers self-disclose their use of inflammatory language or name-calling that is a common complaint among citizens, especially black citizens (Gau and Brunson 2010; Weitzer and Tuch 2005; White, Cox, and Basehart 1991). In only three incidents did officers report the use of force when subduing suspects, and those incidents resulted in documented injuries. If drug enforcement is racially-motivated—explicit or implicit—racial biases are hidden

under the guise of reasonable suspicion and under the stated goal to reduce illegal activities, intertwined in seemingly race-neutral cues, such as observing suspects whom "appeared to be nervous" (#34, black neighborhood, black arrestee, white officer) or were "clinching his waistband" (#184, mixed neighborhood, black arrestee, white officer), or when officers "reasonably suspected furtive movements" (#127, mixed neighborhood, black arrestee, white officer) or "did not recognize [a person] from the neighborhood" (#193, mixed neighborhood, black arrestee, white officer).

Nevertheless, more important than officers' motivation is the pattern of differential drug enforcement by neighborhood and by arrestee race that may or may not be justified. Even in officers' best presentation of themselves in the narratives, descriptions of their own activities strikingly comport with those reported by citizens in prior research: black places and black persons tend to be the recipients of involuntary, aggressive, proactive policing strategies, some which seem to be for arbitrary reasons (Brunson and Miller 2006; Brunson and Weitzer 2009; Weitzer 1999; Weitzer 2000) or based on conditions of the neighborhood (Gau and Brunson 2010) or citizens' appearance (Jones-Brown 2007). Excessive use of such strategies likely exposes more black citizens to drug arrests who would otherwise go undetected and contributes to the overrepresentation of blacks in drug arrests. In the same vein, the minimal use of officerinitiated drug enforcement in white neighborhoods and of white arrestees contributes to the benign neglect of the serious drug problems those communities face and their underrepresentation in drug arrests. Together, the qualitative component points to salient differences in drug enforcement practices across racialized neighborhoods and arrestee race that seem to contribute to racial disparities in drug arrests.

Chapter 6: Conclusions

"Where justice is denied, where poverty is enforced, where ignorance prevails, and where any one class is made to feel that society is an organized conspiracy to oppress, rob and degrade them, neither persons nor property will be safe."

-Frederick Douglass, 1886 -24th Anniversary of Emancipation speech, Washington, D.C.

This dissertation research sought to investigate the source of one of the most salient issues in criminology and criminal justice: racial disparities in drug arrests. For decades, blacks have been overrepresented and whites have been underrepresented as drug arrestees, creating large, longstanding racial disparities in drug arrests and reinforcing coexisting racial and social inequalities. Despite its relevance to society, the criminal justice system, research, and policy, few empirical studies have attempted to elucidate this social problem. A small body of research has analyzed racial disparities in drug arrests at the individual-level (Mitchell and Caudy 2013; 2015) and city-level (Beckett, Nyrop, and Pfingst 2006; Parker, Stults, and Rice 2005), thus, neglecting the importance of neighborhood context.

This dissertation contributes to this literature by examining race-specific drug arrests at the neighborhood-level in St. Louis between 2009 and 2013. Guided by differential drug involvement, differential scrutiny, and racially-biased policing theories, this study employed quantitative and qualitative methods. The quantitative component tested whether neighborhood context could explain racial disparities in drug arrests. Culling together multiple sources of neighborhood-level data, predictors in the quantitative component included: drug death rates as a proxy for drug involvement, violent and property crime rates, citizen calls for drug service, racial composition,

economic disadvantage, and residential instability. The qualitative component used grounded theory methods to analyze a sample of officers' narratives in drug arrest reports. It explored the nature of drug enforcement across racialized neighborhoods and arrestee race in order to elucidate officer decision making and the factors that influenced the initiation of drug arrests. This mixed-method dissertation revealed important insights into drug enforcement, in general, and the racial disparity problem, specifically. Despite its neglect in extant research, this dissertation found neighborhood characteristics to profoundly shape drug enforcement. The overall findings align with the larger literature on policing, which highlights that officers behave differently in different neighborhood contexts (Black 2010; Klinger 1997; Smith 1986).

SUMMARY OF FINDINGS

Similar to nearly every jurisdiction throughout the U.S., St. Louis has notable racial disparities in drug arrests, at the city and neighborhood levels. During 2009-2013, blacks made up 49% of the resident population but comprised 74% of the city's drug arrests. Whites were underrepresented, as they accounted for 46% of the resident population and only 26% of drug arrests. In addition, the prevalence of drug arrests varied across racialized neighborhoods (i.e. black, white, mixed neighborhoods) during the five-year period; the vast majority of drug arrests occurred in black (52%) and mixed neighborhoods (41%). Only 7% of drug arrests occurred in white neighborhoods, although white neighborhoods made up 23% of St. Louis communities.

These race and neighborhood disparities in drug arrests are incongruent with patterns of drug involvement. First, the distribution of drug involvement appears to be even across racialized neighborhoods in St. Louis, as the drug death rate (the proxy for

drug involvement) is statistically similar across black, white, and mixed neighborhoods. Second, whites are more involved in serious drugs than blacks, as their drug death rate is seven times the rate of blacks. Third, while the black drug death rate is similar across racialized neighborhoods, the white drug death rate is significantly greater in black neighborhoods than in white or mixed neighborhoods. Indeed, a theme in the qualitative analysis and my interview with a high-ranking SLMPD official confirm that white drug offenders tend to travel to black neighborhoods to engage in drug activity, a pattern that is not characteristic of black drug offenders. Thus, differential drug involvement theory, as it stands, is refuted. Rather, the differential drug involvement is for whites. Even more, drug involvement cannot explain the disparity problem. The multivariate analysis showed that white drug arrests, and not black drug arrests, were a function of drug deaths when controlling for theoretically-relevant covariates, although the effect of drug deaths was statistically similar for whites and blacks. Echoing conclusions from prior analyses of the racial disparity problem (Beckett et al. 2005; Beckett, Nyrop, and Pfingst 2006; Mitchell and Caudy 2013; 2015), this dissertation finds that neighborhood-level drug involvement cannot explain neighborhood-level racial disparities in drug arrests.

Perhaps the racial disparity is due to the concentration of police in neighborhoods with high violent crime rates and citizen calls for drug service, as differential scrutiny theory contends. Consistent with the theory, the quantitative component showed that drug enforcement is concentrated in black neighborhoods, followed by mixed neighborhoods, which have the city's highest violent crime rates and calls for drug service. White neighborhoods have the city's lowest violent crime rates and calls for drug service and consequently, drug enforcement is nearly non-existent in those communities.

The qualitative component also revealed evidence of the differential scrutiny of neighborhoods. Consistent with research on broader policing practices (Bass 2001; Black 2010; Brunson and Weitzer 2009; Ghandnoosh 2015; Smith 1986; Terrill and Reisig 2003; Weitzer 2000), black neighborhoods, followed by mixed neighborhoods, experienced more officer-initiated and invasive drug enforcement practices than white neighborhoods. Patrol and specialized unit officers in black and mixed neighborhoods often initiated drug arrests with pedestrian and vehicle stops and officer surveillance. High violent crime rates and disorder attracted police to those communities, but officers often justified their initiation of investigative stops based on the characteristics of the area (e.g. crime, vacant buildings, alleys) or citizens' demeanor or appearance, even when the specific citizen was not engaged in prohibited behaviors. Thus, those simply frequenting crime-ridden areas were subject to officers' suspicion and ultimately, police scrutiny.

Adding to neighborhood differences in aggressive policing, undercover detectives used buy/bust operations exclusively in black and mixed neighborhoods, all against random, low-level drug offenders whom were black. Drug enforcement in white neighborhoods involved less aggressive, proactive policing, and officer-initiated activity was generally based on officers' observations of citizens' prohibited behaviors rather than characteristics of the area or citizens' demeanor. Instead, officers tended to initiate drug arrests in white neighborhoods by responding to citizen complaints.

Despite descriptive evidence of differential scrutiny, it is not a salient predictor of the disparity problem. The multivariate analysis showed that both white arrestees and black arrestees faced a greater risk for drug arrest in violent-prone neighborhoods when controlling for theoretically-relevant confounders; however, the effect of violent crime on

arrests was very modest and similar for both groups. Moreover, black drug arrests, and not white drug arrests, were a function of citizen calls for drug service; however, citizen calls for drug service had a moderate effect on black drug arrests, and its magnitude was similar for both groups. Taken together, differential scrutiny is related to overall drug enforcement, but it does not explain the racial disparity problem.

While the explanatory ability of differential scrutiny was limited, the largest predictor of the racial disparity problem was racially-biased policing. When controlling for factors that should be most relevant to drug enforcement—drug deaths, violent and property crime, citizen calls for drug service, and social disorganization—the strongest predictor in the multivariate analysis was neighborhood racial composition. The quantitative component refuted the racial threat and benign neglect hypotheses (Blalock 1967; Chamlin and Liska 1992; Liska 1992; Liska and Chamlin 1984) and instead found support for the defended neighborhoods hypothesis (Green, Strolovitch, and Wong 1998; Lyons 2007; Stewart et al. 2009) while uncovering an underexplored form of racial profiling: racial incongruity, also known as "out-of-placeness" (Fagan and Davies 2000; Novak and Chamlin 2012; Rojek, Rosenfeld, and Decker 2012). Officers were more likely to arrest whites in areas with more black residents and arrest blacks in areas with more white residents, controlling for confounders. Thus, racial disparities in drug enforcement in St. Louis are largely based on officers' assessments of where people "belong" in terms of race. Race is salient in St. Louis, and this salience is no surprise in light of the city's history of interracial strife and enduring racial segregation, as discussed in Chapter 3.

The magnitude of racial composition on arrests was strong for both groups but was substantially and significantly larger for white arrestees. It is likely that low drug enforcement in white neighborhoods exacerbates the strong race effect for whites. Had drug enforcement been greater in white neighborhoods, more whites would become drug arrestees, especially in white neighborhoods. Another factor is the drug involvement patterns of white drug offenders, as previously mentioned. Because of their tendency to engage in drug crimes in black neighborhoods, and officers' knowledge of these patterns, their risk for drug arrest increases as the black population increases. On the other hand, the effect of racial composition on black drug arrests is best interpreted as notions of racial incongruity and the defended neighborhoods hypothesis. This is because black drug arrests are not a function of drug deaths, and no evidence points to black drug offenders flocking to white neighborhoods to engage in drug offending. Given St. Louis' legacy of white supremacy and explicit, concerted efforts to restrict blacks from white places, it is plausible that blacks' presence in white areas raises suspicion and social control in effort to protect white interests, as the defended neighborhoods hypothesis posits.

The qualitative analysis also revealed the importance of race in drug enforcement, as black and white drug arrestees were subjected to different policing practices, even within the same neighborhood context. Officers' descriptions of their own activities mirror those reported by citizens in prior research: black places and black persons tend to be the recipients of involuntary, aggressive, proactive policing strategies, some which seem to be for arbitrary reasons (Brunson and Miller 2006; Brunson and Weitzer 2009; Weitzer 1999; Weitzer 2000) or based on conditions of the neighborhood (Gau and Brunson 2010) or citizens' appearance (Jones-Brown 2007). Excessive use of such

strategies likely exposes more blacks to drug arrests who would otherwise go undetected and contributes to the overrepresentation of blacks in drug arrests. In the same vein, the minimal use of officer-initiated drug enforcement in white neighborhoods and of white arrestees contributes to the benign neglect of the serious drug problems those communities face and their underrepresentation in drug arrests. Together, the qualitative component points to salient differences in drug enforcement practices across racialized neighborhoods and arrestee race that seem to contribute to racial disparities in drug arrests. Ultimately, the quantitative and qualitative components found race to drive racial disparities in drug enforcement more than drug problems and even neighborhood context.

Aside from theoretical predictions, other important findings emerged from the analyses. For example, both components revealed the importance of citizens in shaping drug enforcement. The quantitative component showed that white drug arrestees faced a greater risk for drug arrest in residentially stable neighborhoods. The qualitative component elaborated this result, finding that officer response to citizen reports drove white drug arrests, and citizens in stable neighborhoods reported information to the police that led to arrests of white subjects. Black drug arrests were a function of citizen calls for drug service in the quantitative analysis, though it could not explain the racial disparity problem, and such reactive policing was relatively infrequent when initiating black arrests. Furthermore, the qualitative component revealed how blacks' disproportionate contact with the legal system amplifies their risk for future arrest. Specifically, the ubiquity of bench warrants among black suspects made blacks vulnerable to drug arrests during investigative stops.

RESEARCH AND THEORETICAL IMPLICATIONS

Like all research, this dissertation addressed some research gaps but has also generated more questions for future research. One limitation of the quantitative component was the inability to portion drug arrests by drug type (e.g. marijuana versus hard drugs). It is possible that officers differentially enforce certain drugs. Relatedly, marijuana use was underrepresented in the analysis since the proxy for drug involvement—the drug death rate—better captured the use of hard drugs (i.e. heroin, cocaine, and methamphetamine). Although whites are disproportionately involved in hard drugs, marijuana might be a drug of choice for black drug users (Mitchell and Lynch 2011). As such, future research should better distinguish drug types when examining racial disparities in drug arrests and drug involvement. Because of the richness of the qualitative data and officers' descriptions of the seized drugs in every incident, in future studies, I plan to code the types of drugs in those arrests and conduct quantitative analyses.

In some ways, St. Louis is similar to other cities in regards to its notable racial disparities in drug arrests and history of racism and interracial tensions. Yet, the conditions of St. Louis are more pronounced and enduring than those in many cities, as it is one of the most racially segregated, economically disadvantaged, crime-prone cities in the U.S. I hypothesize that racial composition will be significantly related to racial disparities in drug arrests in other jurisdictions too. Racial disparities throughout the U.S. are too pervasive to be due to drug involvement or solely race neutral factors, such as variations in crime or social disorganization. Indeed, there is no state where the white drug arrest rate exceeds the rate for blacks (Mitchell and Lynch 2011, 144–145), and the

theme of this dissertation and extant research is that race trumps drug involvement and contextual factors. However, because race is likely more salient to residents and officers in racially-segregated places, the magnitude of racial composition might be weaker in less segregated places, and the nature of the relationship might differ. For example, the finding of racial incongruity in this dissertation might be characteristic of racially segregated places like New York City (Novak and Chamlin 2012) and St. Louis (Brunson and Weitzer 2009; Rojek, Rosenfeld, and Decker 2012). Future studies should replicate analyses from this dissertation in both racially-segregated and racially heterogeneous places to assess whether the same explanations hold.

Another defining feature of St. Louis is its lack of racial and ethnic diversity, which precluded the study of Hispanics whom are also overrepresented as drug arrestees (Ghandnoosh 2015; Mitchell and Caudy 2013; 2015). Although this dissertation informs black-white racial disparities in drug arrests, which are larger than those between other racial/ethnic groups, criminology would benefit from more research that examines how neighborhood context influences drug arrest disparities between other racial/ethnic groups.

Additionally, this dissertation found evidence of differential scrutiny theory although it cannot explain the racial disparity problem. The secondary tenet of differential scrutiny theory is the notion that drug dealing occurs more openly in black neighborhoods than in white neighborhoods, which is why black drug offenders should be at greatest risk for police scrutiny. Yet, this hypothesis is more consistent with drug selling, which comprises only a minority of all drug arrests. Nevertheless, for the purposes of fully considering the theory and understanding racial disparities in drug

arrests, it might be worthwhile to examine this notion of differences in visibility of both drug use and drug distribution across racialized neighborhoods. This topic could be explored in future qualitative analyses of the police narratives in this dissertation.

While this dissertation found the strongest support for racially-biased policing theory, its findings did not fully comport with the racial threat hypotheses. This was because racial threat perspectives focus exclusively on social control against blacks and are silent about social control against whites, whether it is more lenient or varies under certain conditions. Yet, white underrepresentation and white privilege add to the racial gap as much as, if not more than, black overrepresentation. The minimal focus on white places and white people is characteristic of broader criminological research and leaves more to be learned about the relationship between race, neighborhoods, and social control.

The qualitative data in this dissertation provide opportunities to address questions ripe for future qualitative and quantitative studies. Given the importance of both neighborhood context and individual-level factors (see Mitchell and Caudy 2013; 2015), a fuller analysis of the racial disparity problem would account for factors at both levels of analysis. The drug arrest reports from the qualitative component can be converted into an incident-level, quantitative dataset for multilevel analyses that simultaneously account for neighborhood characteristics and incident-level factors, such as the pathways to drug arrests, arrestee characteristics, and officer characteristics. Moreover, further qualitative analyses of the pathways to drug arrests can be examined across officer race.

Understanding drug enforcement by officer race has important policy implications because a common recommendation is to hire more officers of color in order to allay

problems between the police and communities of color. Examining whether drug enforcement varies by officer race can be fruitful for informing the need for such policy.

POLICY AND PRACTICE IMPLICATIONS

Findings from this dissertation have important implications for policy and practice that point to the need for social change and police reform. As the qualitative component showed, drug enforcement is largely a byproduct of efforts to control serious crime, like violence, and disorder rather than concerted drug disruptive practices. Violence and social disorganization shape police behavior and decision making. One way to reduce racial disparities in drug arrests is to minimize the factors that attract police to disadvantaged neighborhoods in the first place. Social ills, such as concentrated economic disadvantage, physical decay, and racial segregation, foster violence and disorder, and subsequently, police scrutiny. Reducing social disorganization requires strengthening social institutions and increasing investments in impoverished neighborhoods.

Minimizing social ills also requires dismantling the ideologies and systems of white supremacy and racial oppression that undergird them. Since the origins of the U.S., these racist ideologies have been instituted into laws, policies, and practices that have created vicious cycles of racial and social inequities and given rise to social problems like racial disparities in drug arrests. Akin to the racialized drug wars throughout the 1800s and 1900s, the drug war in the 1980s suppressed racial and ethnic groups of color (Provine 2007), and it contributed to the present-day disparity problem. Explicit, deliberate relegation of blacks to dilapidated neighborhoods, as discussed in Chapter 3, is another example of how present-day social ills were manufactured based on racism. It is

no coincidence that racial disparities exist in virtually every American institution: the housing market, educational system, healthcare, job market, and family disruption, to name a few. Many of these factors perpetuate crime and criminal justice contact and reinforce inequality and negative stereotypes. Eradicating racism, racial discrimination, economic disadvantage, and social ills promotes equality and reductions in social problems, but it is no small feat. Needless to say, doing so requires substantial social reform that will not occur overnight.

A more immediate policy solution lies in police reform. First, citizens, police departments, and governments at all levels must decide what the crime priority should be and assess the degree to which criminal justice control is an effective strategy for dealing with drug problems. If the priority is really combating drug problems via arrests, then police should concentrate more on the drug problems in white communities and disrupting those hidden drug markets. However, the inadvertent nature of drug enforcement denotes that drug crimes are a secondary concern to enforcement efforts. Therefore, alternative responses to drug problems are needed.

By law, officers are required to make an arrest when discovering drugs, which means that laws restrict options for responding to drug problem. The local government should work to give the police alternatives to arrests for drug activity, especially drug possession, such as diversion to drug treatment or confiscation of drugs in lieu of arrests. These laws should be carefully crafted and specify the circumstances under which officers should resort to alternatives versus arrests. Alternatives to drug arrests require support from the public and local legislatures as well as resources for drug treatment and collaboration with treatment providers in the community. Additionally, decriminalizing

certain drugs can reduce drug arrests. In fact, in 2013—at the end of this dissertation's study period—St. Louis decriminalized possession of marijuana in small amounts, now making it an ordinance violation. Citizens possessing up to 35 grams of marijuana can be fined between \$100 and \$500 in lieu of arrest.

Alternatives to drug arrests can be beneficial for many reasons, and decriminalizing marijuana is a step in the right direction. But simply reducing the volume of drug arrests or decriminalizing certain drugs may not be enough to reduce racial disparities in drug arrests. Giving officers more discretionary options might provide more opportunities for racial disparities to pervade. For example, in 2009, Massachusetts decriminalized possession of small amounts of marijuana (Matthews 2013). Overall marijuana arrests decreased from roughly 8,500 in 2008 to roughly 1,500 in 2009, but the racial disparity among marijuana arrests did not decrease; the black-to-white arrest rate disparity increased from 3.4 in 2008 to 5.4 in 2009 and 3.8 in 2010 (Matthews 2013). Therefore, reducing racial bias in policing and improving officer decision making might yield more equitable policing.

Efforts to produce more equitable policing should stem from police agencies that set organizational missions and philosophies. Police organizations must develop a culture of intolerance for racially-biased policing. This culture can be developed first through awareness of the problem—and the sources of the problem—via timely, sound research. Such research requires collaboration and cooperation between criminological researchers and police agencies. In addition to research, more transparency and accountability are needed, such as routinely monitoring racial disparities, informing stakeholders (including the public), and taking steps to reduce racial profiling.

Another way to foster a culture of intolerance for racially-biased policing is for agencies to acknowledge racial profiling and recognize that it constitutes a serious problem. Some officers deny that racial profiling even exists (Vera Sanchez and Rosenbaum 2011), despite a substantial amount of research that concludes otherwise. Data analysts in Charlotte, North Carolina, for example, uncovered that Charlotte-Mecklenburg police (CMPD) arrested blacks in possession of less than a half-ounce of marijuana at a rate three times the rate of whites (Harrison 2016). CMPD Chief Kerr Putney declined requests to be interviewed about this issue but expressed in a written statement that "disproportionality does not always equate to discrimination" (Harrison 2016). While this logic is certainly true under some circumstances, it is unsupported in the context of traffic enforcement (Novak and Chamlin 2012; Rojek, Rosenfeld, and Decker 2012; Rosenfeld, Rojek, and Decker 2012) and drug enforcement.

Denial of racial profiling among police demonstrates either their outright dismissal of the problem or their ignorance about what racial profiling constitutes and how their actions (e.g. excessive use of investigatory stops of blacks, targeting citizens whose race is incongruent with the racial context, stopping citizens based on neighborhood characteristics) translate into racially-biased policing. This calls for the need for training on racial biases for officers at all levels of the police organization.

Trainings should focus on improving cultural competence and helping officers become aware of their own biases, implicit or otherwise, that might shape their behavior. Police training on racial bias will likely require collaborations with professionals, such as social psychologists, who are qualified to lead such trainings. In addition to racial bias training, findings from the qualitative component, and the larger policing literature, suggest that

officers' excessive use of investigatory stops of black citizens needs to cease. In many cases, blacks are stopped, and subsequently searched, based on trivial justifications and unreasonable suspicions.

I conclude by noting that police agencies are confronted with the paradox of policing communities of color. On one hand, communities of color have high crime rates and requests for police services. Certainly, residents in communities of color want police to control crime in their neighborhoods, but *how* officers control crime seems to be the point of disjuncture. The aggressive policing practices in communities of color widen the net for negative police encounters and dissatisfied citizens and likely contribute to the racial disparity in drug arrests. Policy-relevant research that incorporates the voices of citizens and the police is needed to develop concrete steps to help police organizations balance the goals of effective crime control and racially-equitable policing.

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Appendix A: Multivariate Tables with Coefficients

Total Drug Arrests

Table 4.4 Negative Binomial	Regression Results for Rac	e-Specific Total Drus	Arrest Counts $(N = 78)$
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		Models 1		Models 2			
	White Arrests b (RSE)	Black Arrests b (RSE)	SUR χ^2	White Arrests b (RSE)	Black Arrests b (RSE)	SUR χ ²	
Race-Specific Drug Death Rate(Ln)	0.30** (.10)	0.21 (.18)	0.19	0.30** (.10)	0.26 (.17)	0.03	
Violent Crime Rate	0.93* (.45)	1.19*** (.20)	0.42	0.73 (.46)	1.32*** (.20)	2.21	
Property Crime Rate	0.03 (.07)	-0.03 (.04)	0.99	0.07 (.08)	-0.04 (.04)	3.42	
Economic Disadvantage	0.27 (.23)	-0.01 (.12)	1.44	0.25 (.21)	-0.01 (.12)	1.48	
Rented Housing Units	-2.89*** (.69)	-0.12 (.34)	14.42***	-2.58*** (.69)	-0.07 (.40)	11.95***	
Racial Composition (% black)	3.42*** (.68)	-1.89*** (.32)	59.83***	3.73*** (.68)	-1.71*** (.33)	66.70***	
Suspicious Drug Calls Rate(Ln)	0.11 (.18)	0.17* (.07)	0.13				
Drug Hotline Calls Rate(Ln)				0.22 (.15)	0.02 (.08)	1.82	
Constant	-4.79*** (.70)	-3.72*** (.39)		-5.14*** (.58)	-3.34*** (.40)		
Race-Specific Population Size (exposure)	1	1		1	1		
Wald χ^2	379.17***	127.21***		407.13***	122.24***		

^{*} $p \le .05$ ** $p \le .01$ ***p < .001 (two-tailed tests)

Drug Possession Arrests

Table 4.5 Negative Binomial Regression Results for Race-Specific Drug Possession Arrest Counts (N = 78)

		Models 1		Models 2			
	White Arrests b (RSE)	Black Arrests b (RSE)	$SUR \chi^2$	White Arrests b (RSE)	Black Arrests b (RSE)	$SUR \chi^2$	
Race-Specific Drug Death Rate(Ln)	0.30** (.10)	0.21 (.18)	0.18	0.30** (.10)	0.25 (.18)	0.04	
Violent Crime Rate	0.90* (.45)	1.25*** (.21)	0.69	0.69 (.46)	1.36*** (.21)	2.75	
Property Crime Rate	0.03 (.07)	-0.04 (.04)	1.55	0.08 (.08)	-0.05 (.04)	4.46*	
Economic Disadvantage	0.28 (.23)	-0.02 (.12)	1.49	0.25 (.22)	-0.02 (.12)	1.49	
Rented Housing Units	-2.89*** (.71)	-0.06 (.35)	14.28***	-2.57*** (.71)	-0.02 (.40)	11.58***	
Racial Composition (% black)	3.50*** (.69)	-1.88*** (.33)	58.42***	3.83*** (.69)	-1.75*** (.34)	66.43***	
Suspicious Drug Calls Rate(Ln)	0.11 (.19)	0.14 (.07)	0.02				
Drug Hotline Calls Rate(Ln)				0.23 (.15)	0.01 (.08)	2.19	
Constant	-4.88*** (.73)	-3.79*** (.40)		-5.26*** (.59)	-3.46*** (.42)		
Race-Specific Population Size (exposure)	1	1		1	1		
Wald χ^2	383.71***	125.93***		413.30***	124.38***		

^{*} $p \le .05$ ** $p \le .01$ ***p < .001 (two-tailed tests)

Drug Sale/Manufacturing Arrests

	Regression Results for Race-Specific Drug Sale/Mftg. Counts (N = 78)							
		Models 1	2	Models 2				
	White Arrests b (RSE)	Black Arrests b (RSE)	$SUR \chi^2$	White Arrests b (RSE)	Black Arrests b (RSE)	$\frac{\text{SUR }\chi}{2}$		
Race-Specific Drug Death Rate(Ln)	0.61*** (.15)	0.07 (.14)	7.38**	0.57*** (.15)	0.18 (.15)	3.21		
Violent Crime Rate	0.90 (.47)	0.84*** (.22)	0.02	1.05* (.45)	1.16*** (.21)	0.06		
Property Crime Rate	-0.03 (.09)	0.03 (.05)	0.82	-0.03 (.09)	0.01 (.05)	0.27		
Economic Disadvantage	-0.01 (.22)	-0.07 (.15)	0.10	0.02 (.25)	-0.08 (.18)	0.23		
Rented Housing Units	-1.18 (.76)	-0.31 (.40)	1.20	-1.10 (.75)	-0.21 (.51)	1.36		
Racial Composition (% black)	0.30 (.66)	-1.64*** (.31)	9.47**	0.59 (.72)	-1.41*** (.36)	8.90**		
Suspicious Drug Calls Rate(Ln)	0.27 (.17)	0.46*** (.10)	1.29					
Drug Hotline Calls Rate(Ln)				0.11 (.18)	0.12 (.12)	0.01		
Constant	-8.52*** (.64)	-6.79*** (.50)		-7.97*** (.67)	-5.63*** (.52)			
Race-Specific Population Size (exposure)	1	1		1	1			
Wald χ^2	132.13***	167.74***		124.36***	110.21***			