

Race and Officer Decision Making: Examining Differences in Arrest Outcomes between Black and White Officers

Robert A. Brown and James Frank

Since the 1960s, one of the major reform efforts in law enforcement has been to increase the number of Black Americans within police agencies and on patrol in the streets. The general premise behind these efforts has been that increased diversity will improve police-community relations and will decrease biased police behavior, particularly against Black citizens. Policies seeking to reform policing through increasing the numbers of African American officers have been implemented with little empirical evidence that an officer's race (or ethnicity) is actually related to their behavior towards citizens, in particular arrest decisions. Using data from systematic social observations of police-citizen encounters in Cincinnati, OH, this study examines the influence of officer race on arrest outcomes, focusing on the behavior of Black officers. Findings suggest that officer race has direct influence on arrest outcomes and there are substantive differences between White and Black officers in the decision to arrest. In general, White officers in our study were more likely to arrest suspects than Black officers, but Black suspects were more likely to be arrested when the decision maker was a Black officer.

Keywords officer race; arrest; police discretion; citizen race

Robert A. Brown is an Assistant Professor in the School of Public and Environmental Affairs at Indiana University Purdue University Indianapolis. His research interests include officer decision making and police control mechanisms.

James Frank is an Associate Professor in the Division of Criminal Justice at the University of Cincinnati. Recently he has directed police observation studies examining the work routines of street-level officers in the Cincinnati Police Division and 21 small-town police agencies. His research interests include officer decision making and citizens' attitudes toward the police. Correspondence to: Robert A. Brown, 801 W. Michigan Street, BS 4081, Indianapolis, IN 46202, USA. E-mail: brownra@iupui.edu

Since the pronouncements of the Kerner Commission in the late 1960s to current debates surrounding racial profiling, a major tenet of police reform has been increasing both the actual number of minority officers and their proportion within police agencies (Bannon & Wilt, 1973; Kelly & West, 1973; Kuykendall & Burns, 1980; Sullivan, 1989). As Weitzer (2000, p. 1) notes, "Contemporary public policy presupposes that police officers should be racially representative of the areas in which they work in order to foster good police-community relations." The fundamental rationale behind the call for more African American police officers on patrol is two-fold: improving police-minority community relations and expectations of behavioral differences between Black and White officers (Sun, 2003; Taylor Greene, 2003).

While increasing diversity is a laudable goal, advocates on all sides of this issue have moved forward in their efforts to place more African American officers on patrol with little contemporary empirical research on the behavior of Black police men and women as they compare to their White counterparts (Beard, 1977). Kakar appropriately notes that "ironically, research on the minority officer's performance is limited, despite the importance of building diversity and equity into policing" (Kakar, 2003, p. 47). Our research attempts to address one particular aspect behind the rationale for increasing diversity in policing, namely the presumption that street-level police behavior varies by officer race. Using data on the interactions between police officers and citizens in Cincinnati, Ohio, we examine whether African American officers differ from their non-Black counterparts in regards to making arrests.

The consensus from the extant empirical research on street-level police behavior is that individual officer characteristics, including officer race, have limited influence on arrest outcomes, particularly when other factors are controlled (i.e., situational, community, and organizational correlates) (Brooks, 2001; National Research Council, 2004; Riksheim & Chermak, 1993; Sherman, 1980). According to Walker and Katz (2002, p. 434), there "is no strong evidence however, that African Americans or Hispanic officers perform differently from white officers." As such, there is a lack of empirical support for the belief of better policing for Black citizens by Black officers, and in some instances research strongly contradicts this assumption (Kuykendall & Burns, 1980). Further, when it comes to what influences arrest outcomes there is no strong empirical evidence that African American and Caucasian officers behave differently (National Research Council, 2004; Smith & Klein, 1983; Worden, 1989).

We first review the arguments of proponents for diversifying police forces. Next, we examine the nature and extent of existing research on Black police officers. This is followed by a discussion of our study variables and the hypotheses derived from prior research concerning the influence of included variables on officer decisions to arrest. In general, we examine two related questions: (1) *Are Black and White police officers just as likely to arrest citizens?* and (2) *Do Black and White officers use the same criteria and give the same weight to encounter, citizen and neighborhood characteristics when*

deciding whether to arrest someone? Using multivariate analyses, we examine the relationship between officer race and arrest outcomes by estimating a direct effects model involving all officers in our sample and two conditional effects models to assess differences between White and Black officers. For this analysis we partition the data by race of officer and compare the coefficients across the models.

Impetus for Racial Diversity in Policing

During the middle to late 1960s numerous inner cities experienced civil disturbances. In 1967, President Johnson appointed the National Advisory Commission on Civil Disorders, hereafter the Kerner Commission, to investigate the causes of these disorders and recommend responses (Williams & Murphy, 1990). The Kerner Commission found "deep hostility between police and ghetto communities" and that the relationship between the police and minority communities has "been a major source of grievance, tension and ultimately disorder" (Kerner Commission, 1968, p. 299). While Commission members contended that certain instances of police behavior precipitated the unrest, they also claimed that the causes were deeply rooted in the social context of the times and the perception of the police as representatives of racism in society and the entire criminal justice system (Kerner Commission 1968; Sullivan, 1989; Williams & Murphy, 1990). In recommending that the "police and society take every possible step to allay grievances that flow from a sense of injustice and increased tension," the Commission contended that the "police bear a major responsibility for making needed changes" (Kerner Commission, 1968, p. 300). One of the proposed remedies was the recruitment of minority officers and the assignment of these officers to minority communities.

First and foremost, the rationale for increasing the number of African American officers has been based on the belief that it will improve community relations (Bryce, 1977; Skolnick & Fyfe, 1993). While there are several elements to this particular justification, it is believed that a representative police force will reduce the enduring tensions between these two groups, thereby improving the image of the police and public satisfaction with the police (Weitzer, 2000). It is generally supposed that when police agencies are racially and ethnically diverse, when agencies "look like" the communities they serve, police-community relations will be more positive (National Crime Prevention Council, 1995; Zhao, Herbst, & Lovrich, 2001). It has also been suggested that a diverse, representative police force will be less likely to engage in behavior that will cause tension between the police and the community because a diverse department will be more conscious of the activities that result in conflict between the police and the public (Shusta, Levine, Harris, & Wong, 1995; Smith & Holmes, 2003). The increased use of Black officers "legitimizes the apparatus of social control," particularly for Black citizens (Barlow & Barlow, 2000, p. 246).

Given the history of race relations in the United States, in particular the conflicts between the police and the Black community, it is not surprising that increasing the number of Black Americans on patrol and in administrative positions has been a large focus of diversity efforts over the last 30 years (Williams & Murphy, 1990). Through changes in employment law and the implementation of policies and practices involving active recruiting, municipal agencies have sought and experienced increases in racial diversity (Decker & Huckabee, 2002; Sullivan, 1989; Walker & Turner, 1993). The number of African American police officers has almost doubled since the call for more Black officers became a part of police reform strategies (Hickman & Reaves, 2003). In 1973, African Americans comprised approximately 6 percent of all sworn police officers (Walker & Katz, 2002). In 1987, 9.3 percent of local police officers were Black, and this figure moved to 11.7 percent in 1997 (Reaves & Goldberg, 2000). Current statistics indicate that as of 2000 there are slightly more than 51,000 African American officers in the United States, comprising 11.7 percent of all sworn local law enforcement personnel (Hickman & Reaves, 2003). Despite these increases at the national level, under-representation of Black officers continues to be an issue in most police departments, particularly small and mid-sized departments in non-urban settings (National Research Council, 2004).

With the advent of community policing, a renewed emphasis has been placed on diversifying police departments as well. Several studies have found that Black officers tend to be more supportive of community-oriented policing efforts (Mastrofski, Worden, & Snipes 1995; Skogan & Hartnett, 1997; Weisburd, Greenspan, Hamilton, Williams, & Bryant, 2000). The presence of minority officers may improve the perception of the department in the community, particular among non-White residents (Frank, Brandl, Cullen, & Stichman, 1996). By reflecting the racial composition of the community, the entire police department may be seen as more legitimate and the community may take on a sense of ownership of the police agency (Weitzer, 2000). Black officers are presumed to be better able to relate to minority citizens, to be more empathetic to (and knowledgeable of) community concerns, and to be "wise stewards" of the discretionary power they possess (Dulaney, 1996; Jacobs & Cohen, 1978; Kerner Commission, 1968; Mastrofski, 1983; Smith & Holmes, 2003). In such a situation, African American citizens may believe that "officers of their own race will enforce the law impartially and even at times protect them from the racially biased system under which they live in American society" (Dulaney, 1996, p. xv). At the same time, however, recent survey research suggests that citizens reject the idea of an entirely White or entirely Black police force. Indeed, Weitzer's (2000) research indicates that both African American and Caucasian citizens desire racially mixed teams patrolling the streets.

It is also suggested that adding minority officers will alter the police subculture and, through peer pressure, will alter the behavior of officers they have contact with on the force (Maghan, 1993; Paoline, Myers, & Worden, 2000;

Smith & Holmes, 2003). Through their contacts with fellow officers who are African American, non-Black officers within the agency may become more culturally sensitive and culturally competent in their dealings with Black citizens (Barlow & Barlow, 2000). Furthermore, as their numbers increase, Black officers are less likely to accept overt racially biased police conduct within the agency (Dulaney, 1996), and they are believed to be unlikely to engage in such behavior as well (Barlow & Barlow, 2002).

This brings us to the underlying issue in efforts to increase racial diversity in police agencies. There is, if nothing else, an implicit belief that officer race is related to officer behavior and that when it comes to the use of police powers Black officers behave differently than their White counterparts (Sherman, 1980). It has been suggested that officers are predisposed to act on cultural cues that affect the interaction between officers and citizens and the final outcome in police-citizen encounters (Black, 1976). In encounters involving same-race dyads, officers are more likely to be knowledgeable of how to interact without conflict or misunderstanding, be less coercive, and act more favorably toward citizens (Black, 1976; Mastrofski, 1983; Mastrofski, Snipes, Parks, & Maxwell, 2000). The assumption is that Black officers will use their police powers differently than White officers, especially when they operate in Black communities or interact with Black citizens, with the result being "better" policing in these neighborhoods and less antagonistic contacts with Blacks. The concept of "better" policing is generally understood to mean that there will be less use of discretion and police powers to the detriment of African American citizens (Dulaney, 1996; Kuykendall & Burns 1980). In addition, Barlow and Barlow (2000, p. 247) suggest that Black officers are better able to communicate with Black citizens, are able to gain access to more information about crime problems and overall are more "effective at enforcing the law and maintaining social order in Black communities."

Are There Differences in the Behavior of Black and White Officers?

Intuitively, it is reasonable to believe that officer decision making in police-citizen encounters is influenced by officer race (and citizen race as well) (Black, 1976; Engel & Calnon, 2004; Smith & Holmes, 2003). Proponents often refer to theoretical pronouncements suggesting differences in behavior. For example, according to Black (1976), police officers are predisposed to act on cultural expectations related to race and ethnicity (see also Mastrofski et al., 2000). All else being equal, when an officer and citizen are of the same race or ethnicity, it is hypothesized that officers will be more likely to be lenient and less likely to exercise formal authority to its fullest degree, and vice versa. Hence, Black officers would likely use less formal authority against Black citizens, and White officers would be more likely to use arrest against Black citizens. However, the research on this issue of Black officers being lenient or

exercising their discretion favorably toward Black citizens is inconclusive at best.¹

In contrast, one could reasonably interpret the existing research as suggesting that Black officers are more coercive than are White officers. This perspective contends that Black officers are more likely to arrest citizens, particularly Black citizens (Alex, 1969; Friedrich, 1977), and that Black officers are more likely to be in use of force and use of deadly force incidents (Fyfe, 1978; Riksheim & Chermak, 1993).² Alex (1969), in his classic study of Black police officers, puts forth the concept of "double marginality" to explain the intractable position Black Americans occupy when they become police officers in American society. Accordingly, Blacks who become police officers are caught in a loyalty conflict where they must choose to act in a manner that shows allegiance to the White male-dominated occupation by (over-)enforcing the law against Black citizens, showing no favoritism to minority citizens, or by using their powers to under-enforce the law against their fellow African Americans.³ Furthermore, in their review of extant historical research on this topic, Kuykendall and Burns (1980) suggest that Black officers are more aggressive and stricter with Black citizens when compared to White officers.

What we do know about African American officers has been derived primarily from a combination of historical and qualitative studies (i.e., autobiographical and ethnographic studies), and a limited number of quantitative examinations that have not focused on the possible nexus between officer race and arrest outcomes (Bolton, 2003; Campbell, 1980; Cole, Kellingerg, Friel, & Kerper, 1969; Dodge & Pogrebin, 2001; Dulaney, 1996; Reaves, 1991; Thompson, 2003). Both qualitative and quantitative studies have found racial differences in officer views and experiences regarding a variety of policing matters (e.g., orientation toward styles of policing, use of force, how citizens are treated by the police, racial bias perpetrated by police officers, allegations of police misconduct, treatment by fellow officers) (Barlow & Barlow, 2002; Bolton, 2003; Dodge &

1. It has also been shown that officer race results in no preferential or deferential treatment, and in some instances the opposite occurs. Some research has found that Black officers may behave more coercively in Black communities (Banton, 1964; Leinen, 1984). Also, research on officers' ability to gain citizen compliance with police requests for orderly and legal behavior suggests that same race dyads between officers and citizen do not necessarily result in more successful police control of citizens. Mastrofski and his colleagues (1996) found that White officers were significantly more likely to get compliant responses from minority citizens than minority officers were, and minority officers were significantly less likely to gain compliance when they interacted with White citizens. Furthermore, same-race dyads had no effect on the likelihood of police ability to gain citizen compliance (see also McCluskey, Mastrofski, & Parks, 1999).

2. A common interpretation of this finding is that because Black officers are assigned primarily to Black communities with higher rates of crime, Black officers are more involved in situations that necessitate higher degrees of coercive control such as arrest or use of force (Alex, 1969; Geller & Karales, 1981; Leinen, 1984).

3. Alex's (1969) seminal work is widely cited in discussions of African American police officers. However, the concept of double marginality has been challenged. According to Campbell (1980), there is little support for Alex's double marginality proposition. Unfortunately, none of the research on the issue of double marginality adequately documents the actual behavior of African American officers, particularly when it comes to arrest situations.

Pogrebin, 2001; Lersch & Mieczkowski, 2000; Novak, Alarid, & Lucas, 2003; Paoline et al., 2000; Weisburd et al., 2000; Weitzer, 1996). Furthermore, Worden (1990) found that minority male and female officers were more accepting than White officers of legal restrictions (due process limitations) on their job duties. Sun (2003) also found that Black officers held more positive attitudes toward legal restrictions than did White officers.

We believe that the research findings from a few studies lend support to the notion that there may be behavioral differences between White and Black officers. According to Barlow and Barlow (2002, p. 350), "African American police officers have the unique vantage point of having the lived experience of being Black in America along with the professional knowledge and experience that comes with being police officers." Research from within the ranks of policing, so to speak, suggests that minority officers may be more involved in police misconduct than White officers (Lersch & Mieczkowski, 2000), and there are racial differences in how officers view police abuse of authority (Weisburd et al., 2000).

In their research on misconduct complaints filed through internal affairs, Lersch and Mieczkowski (2000) found that minority officers were more likely than Caucasian officers to have complaints filed against them, and that such complaints were more likely to come from their supervisors and/or peers than accusations of misconduct made by citizens. In part because their research did not attempt to investigate the actual behavior of officers, only accusations regarding an officer's behavior, Lersch and Mieczkowski (2000) suggest that their findings be interpreted cautiously. These differences in allegations could be signs that either minority officers actually engage in more acts of misconduct than their Caucasian counterparts, thus their behavior is more likely to be reported, or there are no behavioral differences based on officer race, yet minority officers are more likely to be targeted for accusations of misconduct.⁴

Weisburd et al. (2000) examined officer attitudes toward abuse of authority and found significant differences in opinions between White and Black officers. For instance, approximately 12 percent of their study's White officers agreed or strongly agreed with the survey item asking whether officers treat White citizens better than Blacks, while 51 percent of the Black officers reported agreement (Weisburd et al., 2000). Similarly, over 50 percent of the Black officers surveyed agreed or strongly agreed that police officers were more likely to use force against minority citizens, and were more likely to use force against poor people, while less than 9 percent of the White officers held the same opinions. Unfortunately, the respondents in Weisburd et al.'s (2000) study provide no indication of whether it is White or Black officers who they believe are more likely to commit such excessive acts. The link between officer attitudes, or

4. In a survey study of 167 African American police officers from the Milwaukee (Wisconsin) Police Department, Barlow & Barlow (2002) found that 1 in 10 respondents reported that they engage in racial profiling, suggesting that Black officers are not immune to race-based policing. Racial profiling was defined in the survey as "when race is used by a police officer or a police agency in determining the potential criminality of an individual" (Barlow & Barlow, 2002, p. 344).

reports on police conduct, and actual behavior is elusive (Paoline et al., 2000), but perhaps the issue is best summarized by Walker, Spohn, and DeLone (2004, p. 133), "In short, minority officers do have a different perspective on policing and police problems than White officers. The extent to which these attitudes are translated into different behavior on the street is not clear, however."

Only a limited number of empirical assessments of street-level arrest practices have shed light on the influence of officer race (Mastrofski et al., 1995, 1996; Novak, Frank, Smith, & Engel, 2002; Worden, 1989), and there are no empirical studies that focus on comparing the work of Black and White officers when it comes to arrest outcomes. In fact, surprisingly few of the rigorous examinations of street-level decision-making studies have examined the impact of officer race on arrest as either an explanatory or a control variable. This is most evident with several of the studies that used the PSS data (see Smith, 1987; Smith & Visher, 1981; Smith, Visher, & Davidson, 1984; Worden & Pollitz, 1984). One exception is Worden's (1989) analysis of the influence of situational and attitudinal characteristics of police-citizen encounters.

Worden's (1989) analysis of the influence of attitudinal and situational variables in police-citizen encounters found that officer race exhibits negligible influence on police behavior. Some of his estimated models suggest that White officers may be more likely to take some type of police action in a traffic stop, yet officer race had no impact on dispositions in disputes. Officer characteristics (race included) accounted for very little of the variation in officer behavior (Worden, 1989). It should be noted that officer demographic characteristics such as length of service, educational background, gender, and race were not included as explanatory variables or control variables in the final models used to examine police behavior in traffic and suspicion stops or in encounters involving disputants (see Worden, 1989, footnotes 26, 28, 33, and 42 for a discussion on the influence of officer race).

Worden (1989) is not alone in his assessment on the relevance of officer race as a correlate to arrest: "Virtually all multivariate analyses that have tested for the effects of an officer's race on the use of coercion (arrest or force) show no appreciable differences between races" (National Research Council, 2004, p. 148). These fairly consistent and widely accepted findings of limited or no effect may account for the lack of exploration or inclusion of officer race in many of the studies on arrest and use of coercive control (Mastrofski et al., 1995; Novak et al., 2002; Smith, 1987; Smith & Visher, 1981; Smith et al., 1984; Worden & Pollitz, 1984). However, research examining coercive actions by the police using data from the Project on Policing Neighborhoods (POPON: 1996-1997) suggests that such conclusions may be premature (Sun & Payne, 2004).

In their analysis of contacts between citizens and the St. Petersburg (FL) Police Department, Sun and Payne (2004) examined whether differences existed between Black and White officers in their handling of interpersonal conflicts. Specifically, Sun and Payne (2004) explored behavioral differences between Black and White officers using two outcome measures: one focusing on the level of formal authority used by officers to deal with conflicts, a coercion

scale, and the other focusing on the quantity of supportive actions used by the police, a support scale. Both were additive scales attempting to capture the different types and quantity of coercive and supportive actions administered by officers (for a more detailed discussion of these dependent variables see Sun & Payne, 2004, pp. 527-528). Officer race significantly influenced the amount of coercion a citizen experienced, with Black officers being more coercive than White officers, all else being equal. When the interactive effects of officer race and citizen race, and officer race and racial composition of neighborhood, were included in the equation no significant effects were observed and the main effect of officer race became statistically insignificant. Black officers were not found to be more coercive toward Black citizens, nor were their coercive actions influenced by neighborhood racial composition (Sun & Payne, 2004). In regards to supportive behavior, it appears that officer race matters most when coupled with the racial composition where the encounter occurs. According to Sun and Payne (2004, p. 534), "Black officers are more likely than White officers to conduct supportive activities in predominantly Black neighborhoods, whereas they do not differ in initiating supportive actions in racially diverse communities."

The preceding review of the available research on police behavior as it pertains to officer race suggests at a minimum that behavioral differences may exist between Black and White officers. Nevertheless, there exists only a limited body of knowledge concerning the actual work routines and street-level decisions, particularly the arrest decision, of Black police officers to support the belief that they behave differently than their White counterparts. We believe there are several reasons for the limited amount of research in this area.

Why the Limited Amount of Research on the Behavior of Black Police Officers?

While there are a variety of possible reasons that account for the limited research on the behavior of Black officers, three seem extremely important: the preoccupation with the influence of citizen race, availability of data on Black officers, and the salience of non-officer-level correlates. First, as Mastrofski and his colleagues note, "most research on police behavior examines what officers do *to* people" (Mastrofski et al., 2000, p. 308; original emphasis). When attention has focused on the variable of race in police-citizen encounters the focus has largely been on the influence of *citizen* race on the outcome of interest, not *officer* race. Examining how officers use their arrest powers against minorities, regardless of the race of the officer, has been a central question in policing research (Smith & Visher, 1981; Smith et al., 1984). Studies related to the exercise of coercive control via the police have been more concerned with assessing whether citizens of different races experience varying outcomes regardless of the race of the decision maker (however, see Mastrofski et al., 1996). Furthermore, if officer race has been a factor of interest, the research

concern and approach has typically been to explore whether White officers treat Black citizens differently than non-Black citizens.

Further, police officers have generally been viewed as a monolithic group who, despite their personal background and experiences, share a common outlook that is acquired through the process of becoming an officer (i.e., the training) and working as a police officer (Paoline, 2003). Early writings on the police suggested that officers, White or Black, were for the most part "blue" once they put on their uniform, inferring that the dictates of their profession were more influential in terms of behavior than was officer race (Skolnick, 1966; Van Maanen, 1973). Collectively, this may have led some to believe that focusing on individual characteristics like officer race would be unproductive to explain arrest outcomes (to the point of not even exploring officer race effects).

Second, until recently the number of Black officers has been limited. While there have been gains in the raw number of Blacks working in American law enforcement agencies, with most employed in metropolitan areas and in municipalities where African Americans hold key political positions (i.e., Black mayors), Black police officers remain a numerical minority in most police agencies (Dulaney, 1996; Saltzstein, 1989). The ability to gather adequate data to examine actual differences in officer behavior between racial groups, not just officer views or attitudes about police behavior or other phenomena, may have eluded those interested in this subject matter (Zhao et al., 2001). In other words, the costs associated with securing a large sample of Black officers may have been prohibitive.

Third, improvements in the rigor of statistical techniques used to analyze police-citizen encounters have allowed researchers to isolate the effects of situational and encounter variables. As a result, concerns among researchers have shifted away from decision-maker characteristics (i.e., individual- or officer-level correlates) to what was going on (i.e., situational-level correlates) and where it was occurring (i.e., organizational- and community-level correlates) in most attempts to explain police behavior on the street (Brooks, 2001; Riksheim & Chermak, 1993; Sherman, 1980). Meta-reviews of this body of research on police have generally found that, overall, officer race does not exert a strong influence on officer behavior (Brooks, 2001; Riksheim & Chermak, 1993; Sherman, 1980), especially when compared to the influence of situational factors.

Hypotheses

Similar to social science inquiries into the effect of race on the behavior of correctional or judicial actors (i.e., White and Black correctional officers, White and Black judges), we examine the long-standing question of whether police officers are "unique individuals" when it comes to carrying out their role as criminal justice officials (i.e., officer race matters) or whether "all cops are blue" (i.e., officer race is irrelevant) (Fisher-Giorlando & Jiang, 2000; Steffensmeier &

Britt, 2001).⁵ While many people have suggested relationships between officer race and behavior, primarily when it comes to the use of coercive force and arrest decisions, the empirical research has not produced consistent findings supporting such a relationship. We examine whether there is a difference in the likelihood of suspect arrest based on officer race, if the factors that (typically) influence arrest outcomes differ for White and Black police officers, and whether there is a relationship between suspect and officer racial congruence and the likelihood of arrest.

The focal point of this study is the behavior of Black officers. This study attempts to ascertain whether the arrest behavior of Black officers—making arrests and the factors that influence arrest—is significantly different from the arrest behavior of White officers. For that reason we empirically test several plausible propositions related to Black officer decisions to arrest suspects:

- (1) *Ample reason exists for believing there are no significant differences in the arrest behavior of Black and White officers due to occupational socialization.* Police organizations place significant importance on “selecting and shaping those who join their ranks” (Mastrofski et al., 1995, p. 280). While anecdotal comments by police commentators have suggested that officer race influences arrest behavior, the consensus from the extant empirical research on street-level police behavior is that individual officer characteristics, including officer race, have limited influence on arrest outcomes (Brooks, 2001; National Research Council, 2004; Riksheim & Chermak, 1993; Sherman, 1980; Walker & Katz, 2002; Worden, 1989). Arguably Black (and White) officers have been socialized to adopt the police culture and institutional perspective of their respective police organization. Thus, they identify with the occupation, not their racial identity, and their arrest behavior is similar to other officers irrespective of race (Alex, 1969; Barlow & Barlow, 2000; Leinen, 1984; Sun & Payne, 2004). We first test the proposition that there is no difference in the likelihood of suspect arrest based on officer race (null hypothesis).
- (2) *Black officers have a familiarity with the complexities of police-citizen encounters that is different from White officers, and subsequently are more influenced by extralegal factors.* Walker et al. (2004, p. 133) note that “minority officers do have a different perspective on policing and police problems than white officers. The extent to which these attitudes are translated into different behavior on the street is not clear.” Significant increases in the number of Black officers on patrol has largely occurred during, and in part because of, the move from professional to community policing strategies. Several studies have found that Black officers tend to be more supportive of community-oriented policing efforts (Mastrofski

5. There are substantial differences between the process and requirements for becoming a police officer versus a correctional officer or a judge. Additionally; their respective work responsibilities and role constraints differ. While these differences are important, the potential for racial identity to influence occupational behavior is a common issue.

et al., 1995; Skogan & Hartnett, 1997; Weisburd et al., 2000). Under the community policing paradigm officers are encouraged to frequently interact with citizens and devote more attention to crime- and disorder-related problems (Mastrofski et al., 1995, 2000; Novak et al., 2002). According to Brown (2005, p. 53), "contemporary policing strategies encourage officers to take the social context of the situation into account when they exercise their formal authority (something that has probably always been the case, but is now more openly articulated) (Black, 1976; Black, 1980; Mastrofski et al., 1995)." Based on their life experiences and their general occupational mandate under the community policing paradigm, Black officers may have a greater sense of legitimacy (than White officers) to take extralegal characteristics of the encounter into account when interacting with citizens. Compared to White officers, Black officers may be more likely to use factors such as age, gender, demeanor, and race to guide arrest decisions.

- (3a) Related to the influence of extralegal factors, all else being equal, *Black officers are less likely than White officers to arrest Black citizens*. It has been suggested that officers are predisposed to act on cultural cues that affect the interaction between officers and citizens and the final outcome in police-citizen encounters (Black, 1976). When police-citizen encounters involve same-race dyads, officers are more likely to be knowledgeable of how to interact without conflict or misunderstanding. Black officers are presumed to be better able to relate to Black citizens than White officers (Dulaney, 1996; Jacobs & Cohen, 1978; Kerner Commission, 1968; Mastrofski, 1983; Smith & Holmes, 2003). Furthermore, Black criminal justice decision makers may hold more liberal views (than White officials) and as such may be more sympathetic to racial and ethnic minorities, the poor, and the underclass (Spohn, 1990; Steffensmeier & Britt, 2001; Welch, Combs & Gruhl, 1988). In short, Black officers might be more lenient and less likely to exercise formal authority to its fullest degree (i.e., making arrests) against "their own" (Black, 1976; Mastrofski, 1983; Mastrofski et al., 2000).
- (3b) At the same time, there are equally plausible arguments suggesting that, in comparison to White officers, *Black officers are more likely to arrest Black suspects*. This perspective is based on three related factors. First, race-based sympathy from Black officers is directed toward Black victims, not Black suspects, of crime. Since most crime is intra-racial, Black officer attitudes are likely to be aligned with the victim versus the offender (Barlow & Barlow, 2000). Second, Black officers may use arrests to show their partners and the organization that they identify with the occupation (Leinen, 1984). Furthermore, as Sun and Payne (2004, p. 520) and others have noted, Black officers may be more punitive to Black suspects "to ensure that they are not 'one of them (Black offenders)'" (Palmer, 1973)." Third, Black officers may have more antagonistic interactions with Black suspects than White officers do because they are not well received by Black citizens. Specifically, Black officers may be more likely to face challenges to their authority from Black citizens, equal to or greater than the challenges faced

by White officers, and thus use their arrest powers to maintain control of their interactions with Black citizens (Sun & Payne, 2004).

Data

Data for this study were collected through systematic social observations of street-level officers employed by the Cincinnati Police Division (CPD) between April, 1997 and April, 1998. The CPD is the largest police agency within Hamilton County Ohio, with 996 sworn officers in 1997 (Cincinnati Police Division, 1997). Data for this study were initially collected as part of a larger project funded by the National Institute of Justice. The primary purpose of the larger study was to document and compare the activities of community policing and beat officers (for more information see Novak et al., 2002). The observed officers were assigned to either beat officer or community policing officer (COP) duties. During the study period, 84.3 percent of the sworn officers in the Division were male, 64.3 percent were White and 34.7 percent were African American (Cincinnati Police Division, 1997).

Following the data collection methodologies of other observation projects (Mastrofski et al., 1998), coding instruments were used to systematically structure observations and the collection of necessary information to explore the variance in the behavior of police officers. Trained observers accompanied police officers during the randomly selected shifts and recorded everything that officers did during their normal work shift. This included gathering general ride information (day, officer observed, weather conditions, etc.), activity information (reason for the encounter, who was involved, outcome, contextual information), and data concerning each citizen involved in an encounter. Prior to conducting observations, observers were required to complete a training course that was intended primarily to ensure standard coding rules. The course included presentation of materials on the purpose and details of the overall project, the organizational structure of the study agency, while the majority of the time was devoted to discussing and reviewing the coding instruments in an effort to ensure the collection of reliable and valid data.

The present study uses data collected during officer and citizen encounters. Encounters were operationalized as face-to-face verbal or physical communications between officers and members of the public that involved three verbal exchanges of information. Detailed data were collected on the demographic characteristics of the officer being observed (such as their race or ethnicity, gender, level of education attainment, length of service and patrol assignment) and on various discernable citizen characteristics.

One possible problem with observational data is officer reactivity. The research team took a number of steps to avoid this problem. Specifically, the principal investigator attended a staff meeting of department administrators prior to beginning the study, outlining the rules of confidentiality and study purpose. Then, the principal investigator and the site coordinator attended all

roll calls and met with all COP officers in the city's five police districts to again outline the confidentiality agreement and the study. Observers advised officers at the beginning of each observation period of the project's purpose, that they were not present to judge, critique or offer suggestions to officers. An additional measure used to reduce reactivity was a long-term orientation of observers in the various police districts. Namely, observers were assigned to ride in locations and districts more than once and a rapport was initiated between observers and officers. There were several indications which led us to believe that this approach was quite successful and that officers became more comfortable with observers over time.⁶

Though several proactive safeguards were employed in order to reduce reactivity, it was inevitable that some change in officer behavior occurred during the course of the study. As such, observers were asked on every record which they entered into a database whether they believed officers or citizens reacted to their presence, and the nature of the reactivity. Observers reported that during only 0.7 percent of all observed activities did they perceive the officer to react to their presence. They also noted officer reactivity in only 0.5 percent of all encounters between the police and the public, and citizen reactivity in 1.1 percent of these encounters.

Only persons considered to be a suspect by the observed police officer at some point during an encounter are included in this analysis; thus, this study is being conducted at the suspect level of analysis ($N = 614$). When such encounters are broken down by officer race, 82 different White officers were observed, averaging 4.4 police-suspect encounters ($N = 362$). While there were fewer police-suspect encounters involving Black officers ($N = 252$), the 54 different Black officers observed during the study period averaged a similar number of contacts (4.5 encounters).

Data on citizen characteristics, such as gender, race, approximate age, apparent mental state, and whether they were under the influence of drugs or alcohol, were collected. The observational data also contained contextual information on where the encounter took place (e.g., whether it occurred in a public or private setting and neighborhood characteristics), the actions taken by the officer and the citizen while in the presence of one another (such as whether either party was hostile or antagonistic to the other), and other characteristics of the encounter (e.g., the severity of the alleged citizen behavior that prompted the encounter and the presence of other officers or citizen bystanders) (Brown, 2003; Novak et al., 2002).

In order to identify structural differences in neighborhoods where encounters occurred, data were collected from the 1990 US Census. Data were collected at the block-group level. This was necessary because definitions of community

6. Very often officers would ask observers about the well-being of other observers in the project ("How is Bob doing? I see him here all the time."). This suggests that the officers were not threatened by the presence of observers. Also, officers would make comments to observers along the lines of "I know you rode with Officer Jones, and she said you were all right?" Thus, observers gained some level of legitimacy vicariously through conversations that officers had with one another.

boundaries (and CPD beats) were identified at this level of analysis. All reported crimes known to the police were obtained from the CPD for the project period (April 1, 1997 through April 30, 1998). The crime data contained incidents as recorded by dispatch personnel and the location of the incidents. These data sources (systematic social observations of police officers, census information and crime data) were used to create the dependent variable and independent variables for the proposed analysis of officer arrest decisions. Collectively, these data allow for the examination of officer decisions to arrest and the possible influence of officer race on arrest outcomes.

Variables

The descriptive statistics for the variables used in this analysis are presented in Table 1. Since the primary focus of this analysis is on the effects of officer race on arrest, we present the descriptive statistics and the results from our multivariate analyses by officer race. The dependent variable, arrest, is measured as a dichotomous variable. Out of 614 police-suspect encounters, 104 citizens (16.9 percent) were arrested. When encounters are categorized by officer race, 18.2 percent of the White officer-suspect encounters ended in arrest and 15.1 percent of the Black officer-suspect interactions resulted in arrest.⁷ Officer race was measured as a dichotomous variable where 0 = White officer and 1 = Black officer. In addition to officer race, at the individual level we included officer length of service, which was measured on an interval scale in number of years. The range of length of service is 1-27 years, with an overall mean tenure of 7.25 years with the CPD.⁸

Several situational variables were used for explanatory or control purposes. Two legal variables are used in this analysis: offense seriousness and quantity of evidence. Offense seriousness pertains to the criminal act in which the citizen was allegedly involved during the encounter with the observed police officer. Offenses were coded by severity and measured on a 3-point ordinal scale, ranging

7. Of the observations conducted with non-White officers, 99.7 percent of the observations were conducted with African American officers. Only 0.3 percent of the observations were conducted with Asian officers and no observations were conducted with officers identified as Hispanic or any other racial/ethnic group. Given the focus of this analysis, and small number of observations involving Asian officers, encounters involving Asian officers were excluded from this study.

8. While the empirical research to date suggests that officer-level correlates in general yield limited influence in explaining arrest decisions, we explored the effects of several of the correlates available in the data: officer gender (male versus female officer), officer level of educational attainment (high school versus some college), and patrol assignment (beat officer versus community policing officer). Consistent with the extant research, these particular variables did not substantively improve the explanatory power or findings of any of the models we estimated (Riksheim & Chermak, 1993; Worden, 1989, 1990). We did not deem them necessary as control variables; therefore, only *officer length of service* is included in the final models presented in this study (Table 2). However, as duly noted by the reviewers, the results from our models incorporating more officer characteristics should be transparent as they may be useful to future research examining officer behavior, and they are available from the lead author upon request.

Table 1 Description and frequency of variables

Variable	Values	Frequency	
		White officer-suspect encounters (N = 362)	Black officer-suspect encounters (N = 252)
Dependent variable			
Arrest	0 = No 1 = Yes	296 (81.8%) 66 (18.2%)	214 (84.9%) 38 (15.1%)
Officer level	0 = White 1 = Black	82 (60.3%)	54 (39.7%)
Number of observed officers	Years; range 1-27	x = 7.10 SD = 6.90	x = 7.46 SD = 5.37
Length of service			
Situational level			
Offense seriousness	0 = No crime 1 = Minor offense/misdemeanor 2 = Serious offense/felony	216 (59.7%) 119 (32.9%) 27 (7.5%)	126 (50.0%) 96 (38.1%) 30 (11.9%)
Quantity of evidence	0 = No evidence 1 = One evidence criteria 2 = Two evidence criterion 3 = Three evidence criterion 4 = Four evidence criterion	120 (33.1%) 111 (30.7%) 71 (19.6%) 46 (12.7%) 14 (3.9%)	83 (32.9%) 84 (33.3%) 50 (19.8%) 30 (11.9%) 5 (2.0%)
Female suspect	0 = Male 1 = Female	262 (72.4%) 100 (27.6%)	186 (73.8%) 66 (26.2%)
Non-White suspect	0 = White 1 = Non-White	164 (45.3%) 198 (54.7%)	63 (25.0%) 189 (75.0%)
Juvenile suspect	0 = Adult 1 = Juvenile	268 (74.0%) 94 (26.0%)	172 (68.3%) 80 (31.7%)
Disrespectful suspect	0 = Deferential 1 = Disrespectful	316 (87.3%) 46 (12.7%)	198 (78.6%) 54 (21.4%)

Table 1 *Continued*

Variable	Values	Frequency	
		White officer-suspect encounters (N = 362)	Black officer-suspect encounters (N = 252)
Interaction-phase crime	0 = No crime 1 = In-presence crime	344 (95.0%) 18 (5.0%)	230 (91.3%) 22 (8.7%)
Intoxicated suspect	0 = No 1 = Yes	303 (83.7%) 59 (16.3%)	217 (86.1%) 35 (13.9%)
Officer dispatched	0 = No 1 = Yes	139 (38.4%) 223 (61.6%)	129 (51.2%) 123 (48.8%)
Arrest preferred	0 = No 1 = Yes	346 (95.6%) 16 (4.4%)	242 (96.0%) 10 (4.0%)
Citizen bystanders	Number; range 1-10	x = 2.15 SD = 1.72	x = 2.10 SD = 1.67
Community level			
Community disorganization	Factor	x = 1.99 SD = .92	x = 1.94 SD = .90

from 0 = no offense, 1 = misdemeanors, and 2 = felonies. Our evidence variable measures the quantity of evidence available to the officer indicating that the citizen had committed a criminal offense. It is an additive scale involving different types of evidence: (1) whether the officer observed the citizen engage in an illegal act or viewed circumstantial evidence of an illegal act; (2) whether the officer observed physical evidence that implicated the citizen to an offense; (3) whether the officer heard claims from others which implicated the citizen in an offense; and (4) whether the officer heard the citizen confess to the offense. A point is calculated for each of the four criteria present in the encounter. Therefore, evidence is measured on a scale from 0 to 4, with higher values indicating higher quantities of evidence (Novak et al., 2002).⁹

Citizen characteristics were all measured as dichotomous variables: gender (0 = male and 1 = female), race (0 = White, 1 = Black) and age (0 = adult, 1 = juvenile).¹⁰ Citizen demeanor was measured as whether citizens were civil or deferential to officers (0) or whether they were moderately or highly disrespectful to the police during the encounter (1) (Novak et al., 2002).¹¹ In addition to citizen demeanor, it was important to control for criminal behavior committed in the presence of the officer (Klinger, 1994, 1996a, 1996b; Engel, Sobol, & Worden, 2000; Worden & Shepard, 1996). In accordance with this research, a control variable (interaction-phase crime) was included (0 = no crime, 1 = a criminal act committed by the citizen in the presence of the observed officer).

Other variables indicate whether there were visible signs of citizen intoxication by either alcohol or drugs (0 = no signs of intoxication, 1 = any signs of intoxication on the part of the citizen) and whether the officer was officially dispatched to the encounter (0 = no, 1 = yes). Arrest preference, whether a victim or another citizen requested that an arrest be made, was also measured as a dichotomous variable (0 = no preference, 1 = preferred arrest be made).

9. This operationalization of evidence assumes all evidence criteria are given equal explanatory value. In other words, it is a measure of the quantity, not the quality, of evidence. Unfortunately, the existing data did not allow for further analysis of evidence quality. In encounters where the citizen was arrested, observers coded the presence of evidence prior to the arrest.

10. Approximately 99 percent of the non-White citizens were African American. There were very few observed encounters between police and Hispanics (0.6 percent), Asians (0.2 percent), American Indians (0.1 percent) and "other" racial groups of citizens (0.1 percent). As such, citizens with these racial/ethnic characteristics were categorized as non-White. Hispanic is an ethnicity, not a separate race. In fact, Hispanic citizens could be classified as either White or Black. However, the original data collection instrument coded Hispanic citizens as a separate race. Observers were not able to code citizens as White-Hispanic or Black-Hispanic. As such, for the purposes of this research Hispanic citizens will be classified as "non-White."

11. Several other operationalizations of citizen demeanor have been used in the extant research on the influence of demeanor on arrest outcomes. According to Lundman (1994, p. 637), "There is no basis for arguing that one representation is superior to another." In the current data, different measurements of the same construct revealed high levels of intercorrelation (see also Novak et al., 2002). Most recent research has operationalized demeanor as a dichotomous variable, measuring citizen behavior as either polite or disrespectful as the differences in citizen demeanor appear to be a matter "of kind rather than degree" (Worden, Shepard, & Mastroski, 1996, p. 330). "In other words, ordinal scales may fail to capture the threshold of antagonism that would most likely affect an officer's behavior" (Novak et al., 2002, p. 93).

The number of citizen bystanders to the encounter was measured on an interval scale, ranging from 0 to 10, with an overall mean of 2.13 citizen bystanders.

Variations in the neighborhood context of where the encounter occurs may also influence police officer and citizen behavior during interactions. As such, there is a need to take into consideration the environmental characteristics of the location where the encounter occurred when attempting to understand individual outcomes, even if only as a control variable to examine the individual effects of officer race. Citizens encountered by police in communities with high economic distress, such as high proportions of persons living in poverty, are more likely to receive coercive dispositions (Smith, 1984; Smith & Klein, 1983; Smith et al., 1984). Encounters occurring in neighborhoods characterized by high levels of disorganization (including high crime rates, high mobility, high proportions of single-family households, high poverty, racial heterogeneity, high proportions of renter-occupied households) may involve a greater use of legal dispositions.¹²

Data were collected on several neighborhood characteristics, such as poverty level, racial composition, proportion of renter-occupied households, and the proportion of single-family households. These variables were factor analyzed to avoid problems associated with multicollinearity among community-level variables. Principal components factor analysis indicated that the community-level variables tap the same dimension, with the eigenvalue equal to 3.129. As such, these variables were combined into one factor score representing community disorganization. The total item intercorrelation suggests that there is internal consistency with these four items (Cronbach's standardized alpha = 0.906) and that they tap the same underlying construct. The items addressing community disorganization loaded on the factor between 0.815 and 0.946.

Multivariate Analyses

While the focus of this study is on the effects of officer race on arrest behavior, the independent variables used in the following analyses were collected at three levels: individual (officer characteristics), situational (citizens and encounter-related characteristics), and community (neighborhood characteristics). Based on the multilevel nature of the data, hierarchical linear models

12. Aggregate-level crime rates may influence the vigor of officers' responses (Klinger, 1997). In communities with high crime rates, particularly violent crime and serious crime, officers may be more prone to actuate arrests due to perceptions by officers that crime is prevalent in the area and that they should arrest in order to deter criminal activity. Klinger (1997) comments, however, that in order for officers to make an arrest (or act with greater vigor) in communities with high levels of crime, the instant offense must meet a "seriousness threshold." In these communities, arrests for minor offenses may not be seen as worth the effort because officers become desensitized by the large amount of crime. Harmful levels of multicollinearity were detected when crime rates were included in our estimated models. As was the case in Novak et al.'s (2002, p. 94) research using the same data, "Communities with high levels of disorganization also had correspondingly high levels of Part I and Part II crimes, therefore making our structural characteristics proxies for aggregate-level crime rates."

(HLM) were initially estimated. Unconditional HLM were estimated (with no predictors) to assess the appropriateness of analyzing the data using multilevel regression models. Examination of the chi-square statistic for the y -intercepts for our models (all officer-suspect encounters: chi-square = 201.28, $p < 0.00$; White officer-suspect encounters: chi-square = 110.41, $p < 0.01$; Black officer-suspect encounters: chi-square = 89.56, $p < 0.00$) indicated that, after accounting for the amount of variance explained at the situational level, there was a significant amount of variance in the dependent variable to be explained at the individual (officer) level. Although multilevel modeling is possible for these data it may not be appropriate.

The small number of suspect encounters for each officer and the small number of police-suspect encounters per neighborhood make it problematic to meet the assumptions of HLM.¹³ Because of the large number of officers with few suspect encounters, and the large number of communities where few encounters occurred, multilevel analyses would likely yield unstable estimates (Bryk & Raudenbush, 1992; Mastrofski et al., 2000). These issues become even more pronounced when trying to estimate the conditional effects models based on officer race and suspect encounters where the sample sizes decrease significantly. In light of concerns over the reliability of the parameter estimates from hierarchical models using these data, particularly when the sample sizes decrease as a result of partitioning the data by officer race, we proceeded to estimate a series of logistic regression models to examine the effects of officer race on arrest outcomes.¹⁴

13. The overall number of officer-suspect encounters and the number of encounters per community vary considerably, which makes it difficult to estimate stable hierarchical models with acceptable levels of bias (Terrill & Mastrofski, 2002). A small number of officers in the sample had numerous suspect contacts and a large number of the suspect contacts occurred in a small number of neighborhoods. Of the 136 officers in the total sample, 17 officers had 10 or more encounters, accounting for 36 percent of the police-suspect encounters ($N = 614$). Approximately 82 (28 percent) of the other officers in the data had four or fewer suspect contacts. Fifty percent of the observed encounters occurred in 10 of the 44 neighborhoods in Cincinnati. As Lowenkamp and his colleagues (2003) note, a consensus has not been articulated regarding the minimum number of "level 1" observations (police-suspect encounters in this case) necessary to generate stable within- and between-aggregate parameter estimates (e.g., compare Jang, 2002; Reisig & Parks, 2000; Roundtree & Clayton, 2001; Roundtree & Land, 2000; Roundtree, Land, & Miethe, 1994; Sampson, Raudenbush, & Earls, 1997; Wooldredge, Griffin, & Pratt, 2001). However, there must be enough observations to meet a major assumption of HLM techniques—the assumption of normally distributed error terms within and across levels of analysis—to estimate reliable hierarchical models (see Bryk & Raudenbush, 1992; Kreft & de Leeuw, 1998).

14. We would like to thank the anonymous reviewers for their thoughtful comments on this issue. It is plausible that certain officers within the data could unduly influence the prediction outcomes. There is a possibility of correlated error terms among officers as 15 of the 136 officers in the data accounted for 32 percent of the observations. While the ideal would be to have data that contained a larger number of observations at all levels, thereby increasing the reliability of parameter estimates from hierarchical modeling, which is the more appropriate analytical technique for these data, given the nature of the data we believe that our logistic regression models are also appropriate. The results from our logistic regression models are largely congruent with our HLM analyses, particularly when it comes to significant differences based on officer race; therefore, we present the findings from the logistic regression models. Results from our hierarchical models are available from the lead author upon request.

We estimate three logistic regression models examining the influence of officer race on arrest outcomes. Table 2 reports the unstandardized regression coefficients, standard errors, and the log odds of the coefficients from all three models. First, we estimate a direct effects arrest model involving both Caucasian and African American officers (Model A; $N = 614$). This model assumes that there are no differences in the effects of the independent variables across officer racial groups (equal effects) (Lowenkamp, Holsinger, & Latessa, 2001). To test this assumption of equal effects two conditional models grouped by officer race were explored. Model B ($N = 362$) consists of police-suspect encounters involving only White officers and Model C ($N = 252$) involves only Black officers and suspects. These models are equivalent to the inclusion of an interaction term between the variable in question, in this case officer race, and all other variables in the model.

The analysis outlined above is a two-stage process where a comparison of -2 log likelihoods indicates whether the separation of the sample is justified (Clogg, Petkova, & Haritou, 1995; Lowenkamp et al., 2001). The distribution of -2 log likelihood approximates a chi-square distribution. The process for testing the hypothesis relating to the invariance between groups involves subtracting the sum of the -2 log likelihood for the separate models (White officers: 251.421 + Black officers: 96.250 = 347.671) from the -2 log likelihood for the total sample model (all officers: 388.388) without the variable of interest (officer race) in the total sample model. The absolute difference between the two values, with 13 degrees of freedom, is used to determine whether the null hypothesis of invariance can be rejected. The results lead to a rejection of the null hypothesis of no significant difference between White and Black officers in arrest outcomes ($388.388 - 347.671 = 40.717$; chi-square 40.717 = $p < 0.001$). Therefore, our exploration of separate effects based on officer race is warranted. Comparisons of coefficients from the conditional effects models are also tested for significant differences between White and Black officers (Clogg et al., 1995; Paternoster, Brame, Mazerolle, & Piquero, 1998). The final column in Table 2 provides the test results (t) from the comparison of parameter estimates (t) between the multiplicative models for White officers (Model B) and Black officers (Model C) (Clogg et al., 1995; Paternoster et al., 1998).¹⁵

Results

As noted above, there is a significant relationship between officer race and arrest. Police-suspect encounters involving White officers are, all else being

15. The following equation is used to test for significant differences between parameter estimates in Models B and C:

$$t = \frac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}}$$

Table 2 Logistic regression models predicting arrest with all officers and samples grouped by officer race

Variable	Model A All suspect-officer encounters (N = 614)			Model B White officer-suspect encounters (N = 362)			Model C Black officer-suspect encounters (N = 252)			t-value for difference between coefficients
	b	SE	exp(b)	b	SE	exp(b)	b	SE	exp(b)	
Constant	-4.85***	.59	.01	-4.51***	.72	.01	-9.57***	1.88	.00	2.51*
Length of service	-.03	.03	.97	.01	.03	1.01	-.19*	.08	.83	2.34*
Offense seriousness	1.13***	.20	3.10	1.31***	.26	3.70	1.58***	.48	4.87	.49
Quantity of evidence	.52***	.12	1.68	.55***	.14	1.74	.21	.29	1.23	1.05
Female suspect	-1.28***	.38	.28	-1.08**	.44	.34	-3.28**	1.13	.04	1.81
Non-White suspect	.79**	.30	2.20	.57	.35	1.77	4.40***	1.26	81.71	2.92*
Juvenile suspect	1.02***	.30	2.78	1.02**	.38	2.77	2.22***	.68	9.21	1.54
Disrespectful suspect	.78*	.33	2.18	.91*	.45	2.48	1.77**	.69	5.85	1.04
Intoxicated suspect	1.55***	.41	4.70	1.00	.57	2.71	2.46**	.80	11.76	1.48
Officer dispatched	.77**	.28	2.15	1.19**	.42	3.29	1.96**	.69	7.09	.95
Arrest preferred	.98	.55	2.66	.88	.71	2.40	.66	.60	1.93	.34
Citizen bystanders	.14*	.07	1.15	.04	.09	1.04	.39**	.15	1.48	2.00
Community disorganization	-.08	.14	.92	-.14	.17	.87	.15	.31	1.16	.82
Model chi-square	170.28			92.40			117.49			
Pseudo R ²	.24			.23			.37			

*p < .05; **p < .01; ***p < .001.

equal, significantly more likely to result in arrest. In other words, compared to Black officers, White officers are more likely to make arrests in their encounters with suspects (see constants for Models B and C, and results from difference in parameter estimates tests: $t = 2.51, p < 0.05$).¹⁶ While the focus of this study is officer race and differences in arrest, we briefly discuss the findings from our pooled sample of Caucasian and African American officers (Model A).

Results from Model A indicate that several legal and extralegal factors are significantly correlated with arrest. Both offense seriousness and the quantity of evidence available to the officer during the encounter are positively related to arrest. As the legal severity of a suspect's conduct increases, or as the number of factors indicating suspect guilt increases, the likelihood of arrest also increases. Male suspects and juvenile suspects are significantly more likely to be arrested than females or adults. Officers are significantly more likely to arrest Black suspects than they are White suspects, and the likelihood of arrest significantly increases for intoxicated suspects than for suspects who show no signs of intoxication. Citizens who are disrespectful to the police increase the likelihood of their arrest, as do suspects who commit crimes in the presence of an officer. The likelihood of arrest also increases significantly if an officer is dispatched to the encounter or other citizens are at the scene of the encounter witnessing the police-suspect interaction.

Examination of our first conditional model (Model B) indicates that the arrest decisions of White officers appear to be influenced largely by legal factors, and only a few extralegal factors are significantly correlated with arrest in White officer-suspect encounters. Encounters between male suspects and White officers are more likely to end in arrest than female suspect-White police officer encounters, all else being equal. If the encounter involves a serious offense, or if number of evidentiary factors against a suspect increase, the odds of arrest increase by 3.7 and 1.7, respectively, when the decision maker is a White officer. The likelihood of arrest also increases if the officer is White and the encounter involves a juvenile suspect (who are 2.7 times more likely to be arrested than adult suspects encountering White officers), a suspect who shows disrespect or hostility toward the officer (2.4 times), or if the suspect shows signs of intoxication (3.2 times). Suspects are twice as likely to be arrested if a White officer is dispatched to the encounter.

Unlike the model involving White officer-suspect encounters, Model C indicates that several extralegal factors significantly influence the arrest decisions of Black officers. The likelihood of arrest significantly decreases as African

16. For the purposes of the -2 log likelihood test, to conduct the test of no difference between White and Black officers properly it was necessary to exclude officer race from the model with all officers. Accordingly, officer race was not presented in the final Model A (see Table 2). We would like to note that when officer race is included in Model A, officer race is significant ($b = -0.945; p = 0.002; \exp(B) = 0.388$), indicating that when an encounter involves a White officer, suspects are significantly more likely to be arrested. While the inclusion of the officer race variable in Model A would, of course, alter the values of the other parameter estimates in the model, including officer race in Model A does not change the direction or significance level of any of the examined variables in the model.

American officers gain in years of service within the CPD. As the offense severity increases the likelihood of arrest significantly increases, but the quantity of available evidence has no influence on Black officer arrest decisions. Compared to female suspects, male suspects are significantly more likely to be arrested when the encounter involves a Black officer. Interactions involving Black officers and Black suspects are significantly more likely to result in arrest than when the encounter involves a Black officer and a White suspect. The odds of arrest are 81.7 times greater for Black suspects who encounter Black officers than for White suspects encountering Black officers. Juvenile suspects are almost 9 times more likely to be arrested when the officer is Black, and suspects who commit offenses in the presence of Black officers are 11 times more likely to be arrested. Arrest is also more likely in Black officer-suspect encounters if suspects are disrespectful, if they exhibit signs of intoxication, or if other citizens are present during the encounters.

Discussion

The data show that during the study period both White and Black officer arrest decisions in the City of Cincinnati were influenced by some of the same factors. Regardless of officer race, the likelihood of arrest significantly increased if an encounter involved a suspect who committed a felonious offense, if the encounter was with a visibly intoxicated person, if the suspect showed disrespect or hostility toward the police, or if the interaction involved a juvenile suspect. These findings are largely consistent with the extant research on arrest outcomes in police-citizen encounters.

Nevertheless, while the arrest decisions of African American and Caucasian officers are influenced by some common factors, there are several correlates that influence the arrest decisions for Black officers that have no bearing on White officers. In our Black officer model arrest outcomes were influenced by length of service, suspect gender, whether a crime was committed in their presence, and by the number of citizen bystanders witnessing the encounter, none of which significantly influenced the behavior of White officers in the study. By comparison, only two of the examined correlates of arrest, the quantity of evidence and being dispatched to the encounter, were significant predictors of arrest for Caucasian officers, but not for African American officers.

The final column in Table 2 provides the results from a comparison of coefficients between the multiplicative models for White and Black officers. The estimated model for White officers is clearly different from the Black officer model in both the number of variables and the specific variables that significantly influence arrest decisions. However, only two factors exhibit significantly different affects on arrest decisions.

Experience on the job, as measured by years of service in the CPD, has bearing on the arrest decisions of Black officers, yet it has no effect on the arrest behavior of White officers, and the difference is statistically significant ($t =$

2.34, $p < 0.05$). Police-suspect encounters involving Black officers with fewer years of service are significantly more likely to result in arrest than similar encounters involving White officers. When an encounter involves a Black officer the race of the suspect significantly influences the likelihood of arrest. All else being equal, African American officers are significantly more likely to arrest African American citizens than are White officers ($t = 2.92$, $p < 0.05$), and the odds of arrest are not trivial.

To illustrate some of the differences between these models we estimate the probability of arrest involving White and Black officers (Hanushek & Jackson, 1977; Spohn & Holleran, 2002).¹⁷ When the factors they hold in common are present simultaneously (i.e., felony offense; intoxicated suspect; disrespectful suspect; juvenile suspect), and all other examined factors except for citizen race are held at their respective means and modes, the probability that a White officer will arrest a White suspect is 88 percent. The probability that a Black officer will arrest a White suspect under the same conditions is 36 percent. When the same scenario involves a Black suspect, the probability that a White officer will make an arrest increases to 93 percent and for a Black officer the probability of arrest rises to 98 percent. This could be interpreted in one of three ways: that Black officers are more lenient toward White citizens when it comes to making arrests; that White officers are slightly more lenient toward Black citizens in regards to arrest; or, that Black officers are more coercive against Black citizens regarding arrest decisions. While it is not possible to demonstrate which of these explanations is true, we believe that our findings are not inconsistent with the varied body of research on Black officers' exercise of formal authority, and that the strongest evidence points to an interpretation that Black officers are more coercive toward Black citizens when it comes to use of their arrest powers.

Our results allow us to address the propositions set forth above. First, the models we estimated suggest that there is a difference between Black and White officers when it comes to arrest decision making—White officers are more likely than Black officers to make arrests, at least in our sample of officers. Based on our findings, we also reject the proposition that Black officers are not influenced by extralegal factors in their arrest decisions, and that Black officers are influenced by fewer extralegal factors than White officers. Indeed, our analysis indicates that the observed White officers are influenced by four extralegal factors, while a total of eight extralegal factors influenced the Black officers in our study (see Table 2). The conditional models we estimated suggest that certain same-race dyads are more likely to result in arrest than others. The hypothesis that Black officers are less likely than White officers to arrest Black citizens is rejected by our finding that Black officer-Black suspect encounters are more likely to result in arrest, and citizen race has no statistically significant effect on the arrest decisions of the White officers in our sample. Furthermore,

17. Using the logit coefficients presented in Table 2, the following formula was used to calculate the arrest probabilities: $P_1 = \exp(Z_1) / (1 + \exp(Z_1))$, where $Z_1 = \sum_k B_k X_{ik}$.

citizen race is one of the two predictors (the other being Black officer length of service) exhibiting a statistically significant difference between our Caucasian officer and African American officer models. In general, White officers may be more likely to arrest suspects than Black officers, all else being equal, but Black citizens are more likely to be arrested if the encounter involves a Black officer than they are if the officer is White.

To date, research on street-level officer behavior and research on minority officers has not focused in depth on the relationship between officer race and officer behavior, specifically when it comes to Black officers and arrest decisions. Our findings suggest that the commonly accepted viewpoint (or perspective) of officer race having little to no influence on arrest decisions needs to be re-examined, since with our sample officer race exerts a statistically significant effect. Furthermore, when we examined the factors that influence the arrest decisions of White and Black officers, an analysis that is not reported in most (if not all) research, we find that the factors differ.

Whether our findings are generalizable to other police officers and agencies remains an empirical question. Moreover, our study examines a narrow aspect of officer behavior: arrest. Empirical research on racial differences in how officers use their formal authority against citizens that only examines arrest outcomes may not be reflective of the routine interactions that officers (Black or White) have with the public. The effects of officer race on police use of formal authority may differ based on the nature of the encounter (e.g., contacts with juveniles versus adults, interpersonal disputes between citizens versus individual suspect encounters, traffic versus non-traffic encounters) and the behavior in question (e.g., engaging in order maintenance, searches, filing official reports or issuing citations, use of physical force) (Sun & Payne, 2004).

Our findings suggest that future research may want to more fully explore the behavior of other under-represented groups (e.g., Hispanic, Asian, Native American, female and homosexual officers) as they assume greater numbers within police agencies. We believe that future research should reconsider the potential effects of individual-level correlates to police behavior, and that the concept of all officers being "blue" not be taken at face value. To better comprehend the role that Black Americans can and do play in policing, data collection efforts and studies need to focus less on whether Blacks and Whites have different experiences in policing and more on whether and how racial differences affect the behavior of officers in the performance of their police duties.

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