Black, White, and Unequal: Examining Situational Determinants of Arrest Decisions from Police–Suspect Encounters

Robert A. Brown

Using data from systematic social observations of police officers in Cincinnati, Ohio, this study examines the influence of situational characteristics of police–suspect encounters on arrest outcomes with a focus on the effects of citizen race. In several ways, the findings are consistent with much of the extant research in this area. Regardless of suspect race, legal variables like offense seriousness and evidence of criminal wrongdoing influence arrest. Several extralegal factors like citizen age, gender and demeanor also influence the likelihood of arrest. However, the effects of these variables differ between black and white suspects. The findings from the estimated models and their implications are discussed.

Keywords: Arrest; Race; Discrimination

Introduction

Research on police behavior often focuses on what law enforcement officers do to people, such as whether the police invoke the criminal law via arrest, and whether factors generally deemed inappropriate influence officer decision making (Mastrofski Snipes, Parks, & Maxwell, 2000). Concern that race inappropriately influences how police officers use their powers against citizens is not new (Alex, 1969; Bayley & Mendelsohn, 1969; Black, 1976; Mann 1997). More specifically, given the history of
racism against black Americans in the USA and the involvement of law enforcement agencies in that history, research on police behavior toward minority citizens has been a common theme of inquiry in social science research (Smith, Visher, & Davidson, 1984; Weitzer, 1996).

Both qualitative and quantitative research strongly supports allegations that compared to whites blacks are subjected to higher levels of surveillance, stops, and investigation at the hands of the police, and that such increased police scrutiny cannot be explained solely by citizen behavior (Browning, Cullen, Cao, Kopache, & Stevenson, 1994; Meehan & Ponder, 2002; Novak, 2004; Smith & Petrocelli, 2004). However, the empirical research supporting contentions that a citizen’s race matters when it comes to arrest decisions is considered to be inconclusive or at best mixed, with the general view that the effects citizen race has on policing decisions are not direct, but rather that they are contingent on situational aspects of the encounter (National Research Council, 2004; Riksheim & Chermak, 1993). This article examines the effects of commonly-used situational characteristics of police encounters with suspects to assess whether legal and extra-legal variables yield different influence on arrest decisions in the context of contemporary policing (i.e., community policing). Data from systematic social observations of officers in an agency practicing community policing (Cincinnati Police Division) are used to explore the relationship between suspect race and arrest.

Empirical research has provided overwhelming support to the notion that officers have a great deal of discretion in how they address a citizen’s conduct and that both legal and extra-legal criteria can influence the outcomes of police–citizen encounters (Smith & Visher, 1981). In simple terms, officer decision making during encounters with citizens is supposed to be guided largely (if not exclusively) by legal factors, such as the seriousness of a citizen’s conduct or evidence against a suspect. It should not be surprising that empirical research does not find support for claims of overt discrimination due to things like race or gender in arrest outcomes. The extant empirical research leaves little doubt that legal factors significantly influence arrest outcomes (National Research Council, 2004). However, as Worden (1989, p. 668, original emphasis) notes in his assessment of the discretionary context of policing, officer behavior is not solely influenced by the law: ‘[Policing] is for the most part extralegal, for while officers (often) work within the constraints of the law, they seldom invoke the law in performing police work’.

Given the long-established concerns over how the police use their powers when interacting with minority citizens, and the inconclusive state of the research on officer decision making in police–citizen encounters, the relationship between race and arrest outcomes remains an enduring issue worthy of study. Since the late 1990s, research focusing on police interactions with minority citizens, in particular African Americans, has centered on the issue of race-based policing in traffic encounters (i.e., racial profiling). Government agencies at all levels are increasingly examining whether the police selectively target, stop, search, and sanction black motorists (Fridell, Lunney, Diamond, & Kubu, 2001). When it comes to investigating possible discrimination by law enforcement, racial profiling via traffic stops appears to be a primary focus of researchers (National Research Council, 2004).
While research focusing on the various aspects of racial profiling is warranted, attention to arrest outcomes should not be ignored for our understanding of the relationship between citizen race and arrest remains unclear. Research carried out on officer behavior in this ‘era of community policing’ (Kelling & Moore, 1988), particularly studies involving police agencies engaging in community policing, may yield findings regarding the influence of citizen race that differ from previous research conducted prior to the shift from the professional model of policing. Moreover, the paradigm shift from the professional policing model to the community policing may result in changes in police strategies which may affect the outcomes of police encounters with criminal suspects, regardless of race, (Mastrofski, Wordon, & Snipes, 1995; Novak, Frank, Smith, & Engel, 2002; Williams & Murphy, 1990).

Some have suggested that, despite the paradigm shift to community policing, the issues surrounding encounters involving minorities and the police have not changed significantly over the last 30 years (Jones-Brown, 2000). Community policing and other contemporary policing strategies (e.g., problem-solving policing, aggressive order maintenance, etc.) are often ambiguous in definition and implementation, and fulfillment of the promises of better police–community relations and lower crime rates remains elusive. There is, however, good reason to believe that policing at the street level has changed since the reform efforts of the 1970s (Greene, 2000). In this era of community policing, officers are encouraged to have frequent contacts with citizens and to take both crime- and disorder-related problems seriously (Mastrofski et al., 1995, 2000; Novak et al., 2002). 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, 1980; Mastrofski et al., 1995). This may result in increased police contacts with minority citizens (Jones-Brown, 2000) and give officers a sense of legitimacy to take extra-legal, situational characteristics such as race into account when determining what action to take (Bayley, 1988).

Literature Review

In general, research that explores outcomes in police encounters with citizens has been based in the sociological perspective of social control (Black, 1980; Klinger, 1996a; Worden, 1989). Whether grounded in the consensus- or the conflict-theoretical perspective (Cureton, 2000), empirical research on police behavior has, for the most part, adopted the premise that police actions involving arrest and the use of physical (lethal) force represent the highest degree of formal authority an officer can exercise against a citizen. The police are the most visible component of the criminal justice system, they represent and facilitate formal social control by the government, and through their arrest powers they regulate the flow of persons into the justice system (Black, 1976, 1980). Accordingly, full-custody arrests have been used to measure social control by the police with arrest representing more social control by the police than no arrest (Black, 1976, 1980; Klinger, 1996a; Worden, 1989).
While the specific significance of the factors considered situational characteristics vary, situational-level correlates of police–citizen encounters collectively have the greatest impact on officer behavior (Brooks, 2001; Riksheim & Chermak, 1993; Sherman, 1980). To address citizen behavior and establish the appropriate degree of social control, officers must often base their actions in accordance with situational exigencies of the encounter (Bittner, 1970; Brown, 1981). Situational correlates can be grouped into two broad categories: legal variables (such as citizen conduct in clearly violation of the rule of law); and extra-legal variables (such as citizen characteristics and certain citizen behaviors). The brief review of the literature will focus on the relevance of legal factors and suspect race as they relate to arrest outcomes.

The police have a mandate to enforce codified law and legal variables are factors that influence officer behavior based on the rule of law (Burton, Frank, Langworthy, & Barker, 1993). Examples of legal factors include the type of offense or activity that is performed by the citizen and/or any physical evidence or testimony that this activity occurred. Citizens who are clearly in violation of the law are more likely to be formally processed by the police, even more so when evidence exists to substantiate a citizen’s guilt. The legal severity of a citizen’s behavior is perhaps the most consistent predictor of officer behavior, particularly when it comes to arrest outcomes. As offense severity increases, so too does the likelihood of a penal, law enforcement response from officers (Black & Reiss, 1970; Friedrich, 1977; Lundman, 1994; Smith et al., 1984; Worden, 1989). Offense seriousness is a significant correlate in traffic offenses (Lundman, 1979, 1998), and encounters involving juveniles (Lundman, Sykes & Clark, 1978; Piliavin & Briar, 1964).

Some notable exceptions to the relevance of offense seriousness do exist. Visher (1983) found that officers might act more chivalrously toward female offenders, as officers were more likely to arrest women for property offenses than violent offenses. Research conducted in the context of community policing has found mixed support for the significance of offense seriousness in predicting officer behavior. Mastrofski et al. (1995) found that offense seriousness positively influences arrest. However, offense seriousness was not a significant predictor of arrest behavior in Novak et al.’s (2002) study of traditional patrol officers and officers assigned to community policing activities. Other legal factors like the amount of evidence implicating a citizen in some type of wrongdoing do influence arrest outcomes.

Legally, police officers need to meet certain evidentiary standards before they can exercise their formal authority, such as reasonable suspicion to stop and frisk and probable cause to arrest. Research confirms that greater levels of evidence (such as observation of a criminal offense, physical evidence or testimonial evidence) increase the likelihood that a citizen will receive official sanctioning (Black 1971; Black & Reiss, 1970; Friedrich 1977; Klinger, 1994). Research by Mastrofski et al. (1995) and by Novak et al. (2002) that examines coercive control within the context of community policing indicates that as the quantity of evidence available to an officer during an encounter increases so does the likelihood of arrest.

Extra-legal factors are characteristics that refer to the citizen involved in the encounter and the citizen’s behavior. While the law provides structure and legitimacy to many
of the actions the police take in dealing with citizens, police officers still have a great deal of discretion with regards to how they enforce the law and maintain order (Bittner, 1970; Goldstein, 1977). Police behavior has never been perfectly predicted by legal factors alone; hence, extra-legal variables need to be explored for their potential influence on officer behavior, above and beyond legal factors (Riksheim & Chermak, 1993; Sherman, 1980). Selective, discretionary law enforcement is the norm in policing, and the inclusion of citizen characteristics and behavior as predictors of police dispositions may be necessary to understand fully arrest (Smith & Visher, 1981). Accordingly, citizen race has been a widely-used control variable in policing research.

Some of the extant research has found that blacks are more likely to be stopped, questioned, and arrested (Lundman, 1979, 1998; Novak et al., 2002; Smith & Visher, 1981; Smith & Klein, 1984). However, disparities in how officers exercise social control against blacks have also been found to be spurious once other situational correlates like legal factors and citizen demeanor are controlled. Pilaivan and Briar (1964) and Black (1971) note that the reason officer behavior appeared discriminatory was due to the fact blacks were more likely to be antagonistic toward police officers than whites. Others have found that because blacks were involved in more serious offenses they more likely to be arrested (Black & Reiss, 1970; Pilaivan & Briar, 1964; Wilson, 1968). Furthermore, the disparity in arrests between whites and African Americans has been a product of victim preferences (Lundman et al., 1978): victims of African Americans typically prefer arrest to other types of police action, thus accounting for the high proportion of arrests. Nonetheless, research that addresses many of the concerns about spuriousness and poor operationalization of demeanor has found that blacks are more likely to be arrested than their white counterparts do (Engel, Sobol, & Worden, 2000).

Much of our present knowledge of the influence of suspect characteristics on arrest is based on observational data collected in the 1960s and 1970s, such as the Police Services Study conducted in 1977 (National Research Council, 2004). Research using data from observational studies conducted in the mid- to late 1990s in law enforcement agencies practicing community policing has also added to our knowledge of the effects of citizen race on arrest (Mastrofski et al., 1995, 2000; Novak et al., 2002). Mastrofski et al. (1995) found that when legal variables and other factors are controlled, suspect race does not influence arrest. Research conducted by Novak et al. (2002) found, however, that suspect race does influence arrest outcomes, all else being equal, but like with other empirical research based on systematic social observations the effect of suspect race was substantively small (Engel & Calnon, 2004). Furthermore, multivariate analyses of contemporary survey data on police–public contacts indicate that when legal and extra-legal factors are controlled the odds of being arrested are 1.8 times higher for black motorists than for white motorists; moreover, for young black male motorists the odds of arrest are 3.4 times higher (Engel & Calnon, 2004).

A concern with the implementation of community oriented policing is that as officers’ level of discretion increases extra-legal suspect characteristics may have more influence on arrest. According to Bayley (1988, p. 231), ‘[C]ommunity policing may weaken the rule of law in the sense of equal protection and evenhanded enforcement.’ Therefore, aside from legal factors and suspect race, the situational characteristics
examined in this study include citizen age, gender, intoxication, drug-related conduct, whether the encounter was traffic-related, how the police entered the encounter, demeanor, whether there were bystanders to the encounter, and whether another citizen requested that an arrest be made. These situational factors are commonly used as explanatory or control variables in analyses of arrest and other outcomes from police–citizen encounters (Engel et al., 2000, Mastrofski et al., 1995; National Research Council, 2004; Novak et al., 2002; Riksheim & Chermak, 1993; Worden, 1989).

The primary focus of the current study is on whether suspect race matters in arrest outcomes. This study will examine whether there is a difference between black and white suspects in the explanatory factors that affect arrest outcomes. The influence of suspect race on other factors such as age and gender is also examined.

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 data originates from a project designed to document and compare the activities of community policing officers and officers assigned to traditional police duties (‘beat officers’) (for more information, see Frank, Novak, & Smith, 2001; Novak et al., 2002). The CPD is the largest police agency within Hamilton County Ohio, with 996 sworn officers in 1997 (Cincinnati Police Division, 1997). 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 (Mastrofski et al., 1998). Only persons considered to be a suspect by the observed police officer at some point during an encounter are included in these analyses; thus, this study is being conducted at the suspect level \( n = 587 \). There were 220 encounters involving white (non-Hispanic) suspects and 367 police encounters with black suspects.2

Variables

The descriptive statistics of the variables used in this analysis are presented in Table 1. Since the primary focus of this analysis is on the effects of suspect race on arrest the descriptive statistics and results from the multivariate analyses are presented by suspect race. The dependent variable, arrest, is measured as a dichotomous variable. Only 16.9 percent of the suspects from the pooled sample were arrested. When the encounters are categorized by suspect race, 11.8 percent of white-suspect encounters ended in arrest and 19.9 percent of black-suspect interactions resulted in arrest.

Offense seriousness pertains to the criminal act in which the suspect was allegedly involved during the encounter. Offenses were coded by severity and measured on a three-point ordinal scale, ranging from 0 = no offense, 1 = misdemeanors, and 2 = felonies. The evidence variable measures the quantity of evidence available to the officer indicating that the suspect had committed a criminal offense. It is an additive scale involving different types of evidence: (1) whether the officer observed the suspect engage in an illegal act or viewed circumstantial evidence of an illegal act; (2) whether
the officer observed physical evidence that implicated the suspect to an offense; (3)
whether the officer heard claims from others which implicated the suspect in an
offense; and (4) whether the officer heard the suspect 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 zero to four, with higher values indicating higher quantities
of evidence (Novak et al., 2002).
Suspect characteristics were all measured as dichotomous variables: gender (0 = male and 1 = female) and age (0 = adult, 1 = juvenile). Suspect demeanor was measured as whether citizens were civil or deferential to officers (0) or if they were moderately or highly disrespectful to the police during the encounter (1) (Novak et al., 2002). In addition to suspect demeanor, it was important to control for criminal behavior committed in the presence of the officer (Klinger, 1994, 1996b, 1996c; Engel et al., 2000; Worden & Shepard, 1996). Assaulting an officer or resisting arrest during the encounter should not be confused with acting disrespectfully as the former conduct is criminal behavior. In accordance with this research, a control variable (interaction-phase crime) was included (0 = no crime, 1 = a criminal act committed by the suspect in the presence of the observed officer). Given the fact that many encounters originate through routine traffic stops, and the possibility that routine traffic stops may be the pretext for investigating non-traffic-related behavior, which could lead to arrest, a measure of the nature of the encounter was included. Whether the encounter was due to traffic-related conduct was also included as a control variable (0 = no, 1 = yes).

Other variables indicate whether there were visible signs of suspect intoxication by either alcohol or drugs (0 = no signs of intoxication, 1 = any signs of intoxication on the part of the suspect), whether the suspect appeared to be involved in drug-related activities, such as use or sale (0 = no, 1 = yes), 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). The number of citizen bystanders to the encounter was measured on an interval scale, ranging from 0 to 10, with an overall mean of 2.10 citizen bystanders. Multicollinearity was not an issue with any of the variables in the analyses.

**Multivariate Analyses**

Three logistic regression models examining the influence of suspect race on arrest outcomes were estimated. Table 2 reports the unstandardized regression coefficients, standard errors, and the odds ratio from all three models. First, a direct effects arrest model involving both Caucasian and African American suspects is estimated (Model 1; \(n = 587\)). This model assumes that there are no differences in the effects of the independent variables across racial groups (equal effects) (Lowenkamp, Holsinger, & Latessa, 2001).

To test this assumption of equal effects two conditional models grouped by suspect race were explored. Model 2 consists of police encounters involving only white suspects (\(n = 220\)) and Model 3 involves only black suspects (\(n = 367\)). These models are equivalent to the inclusion of an interaction term between the variable in question, in this case suspect race, and all other variables in the model (Holsinger et al., 2003). For example, the reported results for the influence age on arrest in Model 2 identifies whether white juvenile suspects are more or less likely to be arrested, and the same variable in Model 3 indicates whether suspect age influences the likelihood of arrest for blacks.
Table 2  Logistic Regression Models Predicting Arrest with All Suspects and Samples Grouped by Suspect Race

<table>
<thead>
<tr>
<th>Variable</th>
<th>MODEL 1</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff.</td>
<td>SE</td>
<td>Odds Ratio</td>
<td>Coeff.</td>
<td>SE</td>
<td>Odds Ratio</td>
<td>Coeff.</td>
<td>SE</td>
<td>Odds Ratio</td>
<td>Coeff.</td>
<td>SE</td>
<td>Odds Ratio</td>
<td>t-value for difference between coefficients</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>−4.661***</td>
<td>0.514</td>
<td>0.009</td>
<td>−2.856***</td>
<td>0.806</td>
<td>0.057</td>
<td>−5.930***</td>
<td>0.741</td>
<td>0.003</td>
<td>2.808*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offense Seriousness</td>
<td>1.117***</td>
<td>0.211</td>
<td>3.056</td>
<td>1.015*</td>
<td>0.422</td>
<td>2.760</td>
<td>1.184***</td>
<td>0.270</td>
<td>3.267</td>
<td>0.337</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity of Evidence</td>
<td>0.536***</td>
<td>0.126</td>
<td>1.710</td>
<td>0.546*</td>
<td>0.243</td>
<td>1.727</td>
<td>0.585***</td>
<td>0.166</td>
<td>1.796</td>
<td>0.133</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrest Preferred</td>
<td>1.172*</td>
<td>0.571</td>
<td>3.228</td>
<td>1.673</td>
<td>1.120</td>
<td>5.327</td>
<td>1.626*</td>
<td>1.742</td>
<td>5.086</td>
<td>0.034</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intoxicated Suspect</td>
<td>0.711*</td>
<td>0.298</td>
<td>2.037</td>
<td>−0.413</td>
<td>0.632</td>
<td>0.662</td>
<td>1.256**</td>
<td>0.396</td>
<td>3.511</td>
<td>2.237*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disrespectful Suspect</td>
<td>0.736*</td>
<td>0.338</td>
<td>2.088</td>
<td>0.072</td>
<td>0.807</td>
<td>1.075</td>
<td>1.256**</td>
<td>0.410</td>
<td>3.512</td>
<td>1.307</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction-Phase Crime</td>
<td>1.540***</td>
<td>0.410</td>
<td>4.667</td>
<td>0.095</td>
<td>1.079</td>
<td>1.099</td>
<td>2.142***</td>
<td>0.505</td>
<td>8.520</td>
<td>1.719</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug-Involved Suspect</td>
<td>0.509</td>
<td>0.359</td>
<td>1.663</td>
<td>−1.655</td>
<td>0.940</td>
<td>0.191</td>
<td>1.269**</td>
<td>0.435</td>
<td>3.559</td>
<td>2.823*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juvenile Suspect</td>
<td>1.144***</td>
<td>0.304</td>
<td>3.139</td>
<td>0.510</td>
<td>0.656</td>
<td>1.665</td>
<td>1.327***</td>
<td>0.384</td>
<td>3.770</td>
<td>1.075</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Suspect</td>
<td>−0.991**</td>
<td>0.370</td>
<td>0.370</td>
<td>−1.076</td>
<td>0.732</td>
<td>0.341</td>
<td>−1.098*</td>
<td>0.479</td>
<td>0.334</td>
<td>0.025</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic-Related Encounter</td>
<td>−0.610</td>
<td>0.375</td>
<td>0.543</td>
<td>−3.311**</td>
<td>1.148</td>
<td>0.036</td>
<td>0.365</td>
<td>0.458</td>
<td>1.440</td>
<td>2.973*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citizen Bystanders</td>
<td>0.113</td>
<td>0.072</td>
<td>1.120</td>
<td>0.031</td>
<td>0.132</td>
<td>1.031</td>
<td>0.217*</td>
<td>0.096</td>
<td>1.243</td>
<td>1.143</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model chi-square</td>
<td>166.93***</td>
<td></td>
<td></td>
<td>52.351***</td>
<td></td>
<td></td>
<td>145.244***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo $R^2$</td>
<td>0.248</td>
<td></td>
<td></td>
<td>0.212</td>
<td></td>
<td></td>
<td>0.327</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>−2 Log likelihood</td>
<td>365.765</td>
<td></td>
<td></td>
<td>107.495</td>
<td></td>
<td></td>
<td>220.939</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * $p < 0.05$, ** $p < 0.01$; *** $p < 0.001$
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 suspects: 107.495 + black suspects: 220.939 = 328.434) from the $-2 \log$ likelihood for the total sample model (all suspects: 365.765) without the variable of interest (suspect race) in the total sample model (see Table 2). The absolute difference between the two values, with 12 degrees of freedom, is used to determine whether the null hypothesis of no difference can be rejected. The results lead to a rejection of the null hypothesis of no significant difference between white and black suspects in arrest outcomes (365.765 – 328.434 = 37.331; chi-square 37.331 = $p < 0.001$). Therefore, exploration of separate effects based on suspect race is warranted.

Coefficient comparison from the conditional models are also tested for significant differences between white and black suspects (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 between the model for white suspects (Model 2) and black suspects (Model 3) (Clogg et al., 1995; Paternoster et al., 1998). Given the focus of the study, the presentation of the results and discussion will focus on the effects of the variables on the samples differentiated by race.

**Results**

Examination of Model 1 indicates that arrest decisions involving Caucasians do not appear to be influenced by many extra-legal factors. If the encounter involves a serious offense, or if number of evidentiary factors against a suspect increase, the odds of a white suspect being arrested increase by 2.7 and 1.7, respectively. The likelihood of arrest also increases by a factor of 4.4 for white suspects who show signs of intoxication over Caucasians who appear to be sober. Whites are more likely to be arrested if the interaction is not traffic-related than when they are dealing with the police because of a traffic-related incident. Few of the situational characteristics (only four) influence arrest outcomes for white suspects. The factors that influence arrest for African Americans differ, however, in number and type.

Dissimilar to the model involving white suspects, Model 3 indicates that in addition to legal variables several extra-legal factors significantly influence arrest outcomes involving African-American suspects. As the legal severity of a black suspect’s conduct increases, or as the number of factors indicating suspect guilt increase, the likelihood of arrest also increases (by 3.2 and 1.8, respectively). Black male suspects are significantly more likely to be arrested than black females, and black juvenile suspects are almost four times more likely to be arrested than their adult counterparts.

The odds of arrest for blacks increase 3.5 times if they are disrespectful, if they exhibit signs of intoxication (3.5 times), by 3.6 if they are perceived to be involved in drug-related activity, and they are 1.2 times more likely to be arrested if other citizens are present during the encounters. In other words, African Americans who are deferential
to the police, who appear sober in the presence of the police or who do not appear to be engaged in drug-related activity are less likely to be arrested. When an officer is dispatched to the encounter black suspects are over three times more likely to be arrested than when the officer enters the encounter of their own volition. Furthermore, blacks who commit crimes in the presence of an officer are over eight times more likely to be arrested, and the odds of a black suspect being arrested increase by a factor of five when another citizen requests that an arrest be made.

Discussion

These analyses show that several of the same situational factors influence arrest for black and white suspects. Regardless of race, the likelihood of arrest significantly increased if an encounter involves a suspect who committed a misdemeanor or felony offense, if there was evidence of wrongdoing, or if the encounter was with a visibly intoxicated person. These findings are largely consistent with the extant research on arrest outcomes in police–citizen encounters. Nevertheless, the influence of certain factors varies significantly by suspect race.

The estimated model for black suspects is clearly different from the white-suspect model in both the number of variables and the specific variables that significantly influence arrest decisions. In the black-suspect model arrests were more likely if the encounter involved a male, a juvenile, if the person was involved in drug use or drug sales, if the officer was dispatched to the encounter, if they were disrespectful to the police, if they committed a criminal offense in the presence of the officer, if there were other citizens present during the encounter, or if someone requested that an arrest be made. None of these factors influenced the arrest of white suspects.

The final column in Table 2 provides the results from a comparison of coefficients between the multiplicative models for white and black suspects. Three factors exhibit significantly different affects on arrest decisions. As previously noted, white suspects are more likely to be arrested in non-traffic interactions than in traffic-related encounters, but this variable has no effect on black suspects, and the difference is statistically significant (t = 2.973, p < 0.05). Suspects, black or white, are not more likely to be arrested in traffic encounters, and likelihood that a white suspect being arrested increased if the encounter was of a non-traffic nature.

Another significant difference between these two samples is the effect of officer entry into the encounter. When officers are dispatched to encounters involving black suspects they are more likely to make an arrest than when the encounter involves a white suspect, all else being equal, and the difference is significant (t = 2.237, p < 0.05). One more difference between black and white suspects is the influence of drug-related conduct on arrest. All else being equal, suspects thought to be involved with using or selling drugs were more likely to be arrested if they were African American than if they were Caucasian (t = 2.823, p < 0.05). The odds of arrest for whites who were suspected of involvement in drug use or sale were 0.19 times higher than non-drug using or selling whites, but blacks who engage in drug-related activity are 3.6 more likely to be arrested than blacks not thought to be involved in such activity.
To illustrate some of the differences between these models the probabilities of arrest involving black and white suspects were estimated (Hanushek & Jackson, 1977; Spohn & Holleran, 2002). When the factors they hold in common are simultaneously present (i.e., felony offense; one source of evidence against the suspect; intoxicated suspect) and all other examined factors are held at their respective means and modes (see Table 1) the probability that a white suspect would be arrested is 31 percent. The probability of a black suspect being arrested under the same conditions is 50 percent.

The majority of the white suspects (55 percent) encountered by the police were believed to be engaged in some type of drug-related activity, yet relatively few black suspects were believed to be engaged in similar conduct (17 percent) (see Table 1). Accordingly, the previous calculation for a white suspect being arrested already accounts for involvement in drug activity as suspicion of drug activity is the modal category for white, but it is not for blacks. Using the same criteria mentioned above and adding involvement in drug-related activity for black suspects as a factor, the probability of an African American being arrested increases from 50 percent to 78 percent. When officers encounter whites who are not engaged in drug-related activity, and other factors are held constant, the probability of arrest changes from 31 percent to 71 percent. Engagement in drug-related activity decreases the likelihood of arrest for white suspects and being a drug-involved suspect increased the likelihood of arrest for black suspects. Furthermore, when the preceding scenario involves a juvenile suspect the probability of arrest for white youths involved in drug-related conduct increases from 31 percent to 43 percent; however, the probability of arrest for black youths believed to be involved with drugs rises from 78 percent to 93 percent. In regards to formal processing by criminal justice decision makers, the cumulative disadvantage of being young, black, and male may not be limited to the realm of court processing (Steffensmeier, Ulmer, & Kramer, 1998). The intersection of extralegal factors like age, gender, and the nature of the suspected criminal conduct (e.g., use or sale of drugs) with suspect race appears to influence police decisions to arrest (Barnes & Kingsnorth, 1996; Hawkins, 1986).

Conclusion

This article adds to our understanding of how race influences arrest in police–suspect encounters. Whereas most research in this area focuses on whether the outcomes that citizens experience (e.g., arrest) differs by race or ethnicity, this study examined whether the factors that influence arrest are dissimilar for whites and blacks. Previous research has found that once legal factors and extra-legal factors are accounted for suspect race has little to no direct effect on arrest (Engel & Calnon, 2004), as was the case in this study. However, focusing only on whether one race is more likely to be arrest than another (in this case blacks compared to whites) obscures the issue: suspect race should not influence arrest decisions directly or indirectly.

The estimated models find that there is a difference between black and white suspects when it comes to the factors that affect arrest decisions. Blacks are not more likely to be arrested simply because of their race or other factors that should not matter
in such a significant exercise of police authority. Indeed, arrest outcomes for blacks and whites alike are influenced by legal factors involving offense seriousness and evidence of criminal wrongdoing. This is consistent with much of the research that examines black–white arrest differentials and could be interpreted as support for consensus theory and police behavior (Cureton, 2000). However, there are significant differences in the factors used to explain the relationship between suspect race and arrest in this article.

For white suspects arrest appears to be conditioned by few extralegal factors. The opposite was the case for black suspects in this study. Except for the measure of whether the encounter was traffic-related, all of the extralegal factors examined in the models significantly influenced arrest decisions involving black suspects, which does not support the notion that black arrests are merely a product of their offense conduct (Wilbanks, 1987). This could be interpreted as supporting race-based conflict theory (Cureton, 2000; Weitzer, 1996). Even after legal factors are controlled, a strong and valid criticism of early studies reporting differences in arrest patterns between blacks and whites (Hawkins, 1987), the factors that lead to arrest vary by suspect race.

Both legal and extra-legal factors increase the likelihood of arrest for black Americans. For black suspects involvement in drug-related activity (be it use or sale) increases the likelihood of formal processing by the police, and if such an encounter involves a black youth arrest is almost certain.

Research on how the police exercise control over citizens should not focus solely on whether one racial or ethnic group is more likely to be sanctioned (such as being ticketed, arrested, or experiencing the use of force). Future research should also attempt to explain which factors influence similar outcomes.

This article has attempted to add one piece to the puzzle on how citizen race matters in arrest decisions, but more needs to be done to clarify our understanding of this complex issue. Research addressing the issues raised in this study needs to be done in other study sites; the data used here was collected in one city and a single police agency, the City of Cincinnati and its police division. In order to improve our understanding of how race may matter in police decision making, more research needs to be conducted in jurisdictions where the police come into contact with diverse racial and ethnic backgrounds. The non-white category for citizen race in the observational data available to date has largely consisted of blacks. More data on police contacts with Hispanics and Asians is needed to improve our understanding of the influence of citizen race on arrest. Furthermore, the current study did not analyze the possible influence of officer characteristics, community characteristics, or organizational characteristics on arrest. Future research in this area should attempt to account for direct and indirect effects of such characteristics to help clarify how citizen race matters in police decision making.

Notes

[1] Arguably, the use of force, in particular lethal force, represents the ultimate degree of formal authority the police could exercise against a citizen (Bittner, 1970; Black, 1980; Terrill, 2001).
This article, however, does not focus on or address the use of physical force (non-lethal or lethal).

The observed contacts between the police and suspects did not involve a very racially or ethnically diverse group. Approximately 97 percent of the non-white citizens encountered during the study were African American. There were very few observed encounters between police and Hispanics (1.5%) and Asians (0.2%). As such, citizens with these racial/ethnic characteristics were categorized as non-white, which is referred to as ‘black’ in this study. 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 for citizens coded Hispanics 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 ‘black.’

An example of circumstantial evidence would be if an officer observed two people standing in an area known for drug activity covertly exchange what appeared (to the officer) to be a small package and money. If the officer stops and conducts an investigation of the person who received the small package, finds that package during a search, and it turns out to be an illegal substance or contraband, it would be physical evidence used to influence the arrest decision. In such a scenario the suspect would receive at least two points on the evidence measure: one point for the officer witnessing circumstantial evidence of an illegal act, another point for finding physical evidence of a crime.

This is a measure of the quantity, not the quality, of evidence. In other words, this operationalization of evidence assumes all evidence criteria are given equal explanatory value in regards to their influence on officer decisions to arrest. Because the focus of the study was on what influences an officer’s decision to arrest someone, in encounters where the suspect was arrested observers coded the presence of evidence prior to the arrest. Unfortunately, the existing data did not allow for further, rigorous analysis of evidence quality. While the quality of evidence against a suspect (and a potential defendant in court proceedings) is obviously important, this study did not explore whether the observed arrests resulted in prosecution or conviction. The threshold for the quality of evidence is not the same in street-level decision making by police officer as it is in criminal court proceedings. Officers are able to use a much lower threshold than say prosecutors in the decision to move an allegation of criminal wrongdoing forward. The use of weak and/or unsubstantiated evidence will impact subsequent criminal justice decisions like charging and ultimately conviction, but this does not always limit police arrest decisions. Research has shown that officers do not always make arrest decisions based on evidence that would substantiate court processing (e.g., formal charging), particularly when it comes to the processing of minority citizens (Hepburn, 1978; Petersilia, 1983)

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, & Mastrofski, 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).

Both the crime rate and a measure of social disorganization (which included the percentage of non-whites in the neighborhood where the encounter occurred) were explored for their possible effect on arrest. The small number of police–suspect encounters per neighborhood, makes it problematic to meet the assumptions of HLM. The overall number of officer-suspect encounters and the number of encounters per community considerably vary which make it difficult to estimate stable hierarchical models with acceptable levels of bias (Terrill & Mastrofski, 2002). Fifty percent of the observed encounters occurred in 10 of the 44 neighbor-
hoods in the Cincinnati. Because of the large number of communities where few encounters occurred, multilevel analyses would likely yield unstable estimates (Bryk & Raudenbush, 1992; Mastrofski et al., 2000). Therefore, a series of logistic regression models were estimated.

[7] For purposes of the −2 log likelihood test, to conduct properly the test of no difference between white and black suspects it was necessary to exclude suspect race from the model with all suspect. Accordingly, suspect race was not presented in the final Model 1 (see Table 2). When suspect race is included in Model 1 it approaches significance at the $p < 0.05$ level ($b = 0.578; p = 0.059$). While the inclusion of the suspect race variable in Model 1 would of course alter the values of the other parameter estimates in the model, including suspect race in Model 1 would not change the direction of, or significance level of, any of the examined variables in the model.

[8] The following equation is used to test for significant differences between parameter estimates in Models 2 and 3: $t = \frac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}}$.

[9] 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 $Z_1 = \sum_k B_k X_{ik}$.

[10] Based on allegations of racial profiling and excessive use of (deadly) force, the City of Cincinnati and the Cincinnati Police Division (CPD) have been the subject of national scrutiny with regards to the police contacts with, and mistreatment of, black citizens. This study does not focus on issues of police use of force or racial profiling in any fashion (e.g., traffic stops or ‘stops and frisks’). Furthermore, the data used in this study were collected from observations of CPD officers carried out over the period April 1997 through April 1998. This was several years prior to the riot sparked by a police shooting of a black citizen in April 2001 riot which exemplified the racial tensions in Cincinnati and issues related to the above mentioned scrutiny. Therefore, the result presented in this article should be cautiously interpreted. In short, this study was not conducted to prove or disprove that blacks in Cincinnati were treated differently than whites prior to April 2001, or that any differences in arrest as it relates to race had any bearing on the events leading to the riot.

Acknowledgements

This work was supported by the National Institute of Justice Grant Number 96-IJ-CX-0075. Points of view are those of the author and do not necessarily represent the view of the US Department of Justice or the National Institute of Justice.

References


