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Impact of Extralegal and Community Factors on Police Officers' Decision to Book Arrests for Minor Offenses

John D. Crum[1] · **David M. Ramey**[1]

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Abstract

Booked arrests carry greater harms than non-booked arrests. When booked following an arrest, individuals are confined without guilt and an official criminal record forms that carries several negative consequences. Even with these greater harms, police decision to book arrests is understudied with little research on what factors influence this decision. This study utilizes official booking data to determine if suspect extralegal and community factors affect officers' decisions to book arrests across minor offenses. The study uses data from the Chandler Police Department in Arizona and the American Community Survey from 2013 to 2019. These data include suspect legal/extralegal, officer, time, and block-group level factors. Using a cross-classified modeling approach, we examine factors associated with booking arrests across five offenses (cannabis possession, drug paraphernalia, shoplifting, criminal damage, and non-DUI-traffic). Results suggest that legal factors, particularly felony charges, are associated with higher odds of booking after arrest. However, we also demonstrate how extralegal factors significantly impact police decision to book arrests. Native Americans, Blacks, older individuals, and those with prior records had higher odds of booked arrests. While the odds of booked arrest varied across officers and communities, few officer or community factors were related to the decision to book arrests. Results suggest extralegal factors remain significant across minor offenses. These findings highlight the need to examine disparities on police post-arrest outcomes, expand racial categories studied, and incorporate less utilized variables like prior record.

Keywords Police decision-making · Booked arrests · Inequality · Race

✉ John D. Crum
jdc5315@psu.edu

[1] Department of Sociology and Criminology, The Pennsylvania State University, 211 Oswald Tower, University Park, 16802 Pennsylvania, PA, United States

Introduction

Booked arrests can be detrimental for individuals who encounter the police. Unlike in non-booked arrests (i.e., cite and release), booked suspects are physically confined in a facility without determination of guilt, experience invasive body searches, forfeit their property, and have their personal information documented for the public to easily access online (e.g., name, address, and physical traits), creating a public criminal record that is difficult to remove, regardless of the results of the case (Lageson et al., 2020; Lurigio, 2017; Raphael & Rozo, 2019). The burdens and stress generated by the arrest process may be exacerbated when booked into jail even if for a brief, but indeterminate time. During this confinement, suspects face "procedural hassles" like being unable to meet work or school obligations, find adequate childcare, or address other important day-to-day concerns (Kohler-Hausmann, 2013). Similar to arrest, the booking process likely intensifies anticipatory stress from uncertainty of future criminal justice stages (Sugie & Turney, 2017). The loss of freedom and sense of uncertainty can perpetuate the powerlessness and alienation already experienced at arrest (Lerman & Weaver, 2014, as cited in Sugie & Turney, 2017). With the growth of police departments publishing personal data and mugshots online, the information circulates to newspapers, tabloids, or mugshot websites, even if outdated, contributing to a presumption of guilt in those booked even when charges are dropped, suspects are acquitted, or records are expunged (Lageson, 2016; Lageson et al., 2020; Lee, 2018). These records create a "criminal" label that can lead to fewer employer callbacks (Uggen et al., 2014), difficulty in finding housing (Thacher, 2008), avoiding social and community institutions (Brayne, 2014), and lower college enrollment (Kirk & Sampson, 2013).

A large scholarship documents how these consequences are unevenly distributed, as suspect-level extralegal factors (i.e., race, age, and gender) can influence police decision-making (Riksheim & Chermak, 1993; National Research Council, 2004; Kochel et al., 2011). Recent research demonstrates that neighborhood features (i.e., racial/ethnic and/or socioeconomic composition) play a role in policing (Gaston, 2019; Lum, 2011; Sun et al., 2008). Booked arrests compared to non-booked arrests can contribute to a process of cumulative disadvantage in which disparate experiences during the arrest phase compound and amplify existing racial and socioeconomic inequalities during later phases. For example, judges and prosecutors use the criminal record created during booking in making their charging and sentencing decisions (Kurlychek & Johnson, 2019), leading to potentially harsher sentences that further block employment opportunities (Pager, 2003; Pager et al., 2009) and contact with prosocial institutions (Brayne, 2014) that can reduce criminal behavior. Thus, inequality in early police decisions can create a feedback loop perpetuating future criminal behavior (Menefee, 2018) and increasing future arrests (Raphael & Rozo, 2019). Despite the importance of booking in the criminal justice process, data shortcomings and theoretical omission have prevented scholars from examining how suspect extralegal, legal, and community factors impact officers' decision to book arrests (exceptions, Camplain et al., 2020; Raphael & Rozo, 2019).

In particular, a lack of quality data has limited our ability to study booked arrest decisions compared to arrests in general and stymied theoretical development regard-

ing criminal justice decisions outside of the courtroom. Most research relies on social surveys (Mitchell & Caudy, 2015; Tapia, 2015), official data (D'Alessio & Stolzenberg, 2003; Lantz & Wenger, 2020), and observational data (Brown & Frank, 2006; Liederbach, 2007) that do not examine police decisions beyond the initial arrest incident (i.e., booking and charging). Relatedly, since most data collection efforts have been in large Northeastern, Midwestern, and Southern metropolitan areas (Brown & Frank, 2006; Gaston, 2019; Smith, 1986; Sun et al., 2008), we have limited knowledge of police decision-making in the U.S. Southwest, including how these decisions impact less studied racial groups, such as Native Americans who experience disproportional representation in the criminal justice system in this region (Camplain et al., 2020; Nielsen & Silverman, 2009; Ulmer & Bradley, 2019). By providing more information on arrest decisions and broadening the scope of research settings, we can better estimate whether young minority persons may experience harsher outcomes even after accounting for seriousness of offense, prior record, and practical constraints in line with the focal concerns framework (Ishoy & Dabney, 2018; Steffensmeier et al., 1998; Tillyer & Hartley, 2010).

In this paper, we address these data concerns by utilizing official booking data from the Chandler (AZ) Police Department (CPD) across five minor offenses (cannabis possession, drug paraphernalia, shoplifting, criminal damage, and non-DUI-traffic). Rationale for this decision is twofold. First, officers have more discretion in minor crimes, but this discretion likely varies across offense type (drug vs. property vs. traffic) (Liederbach, 2007). Second, minor crimes have higher female participation, allowing us to better study gender (Steffensmeier & Allan, 1996). These data include suspect (and offense) extralegal and legal factors, officer extralegal factors, geographic location of each arrest incident, and unique suspect and officer identification numbers to allow tracking of prior offenses (arrests and citations) for all offenders between 2013 and 2019. We utilize the geographic location indicator to merge the CPD data with data from the American Community Survey (ACS) and other sources. Our data allow us to apply a focal concerns framework towards police decision-making to answer three key research questions. First, what suspect extralegal factors (e.g., race, age, and gender) influence the decision to book arrests? Second, what suspect legal factors (e.g., prior arrest and offense severity) influence the decision to book arrests? Third, what community level factors (e.g., demographic composition and crime rates) influence the decision to book arrests?

Literature Review

Booked Arrests

Booked arrests are an often-overlooked outcome. Like other forms of police contact, booked arrests carry negative consequences; yet prior work does not discern between types of arrest (i.e., booked vs. non-booked) (Brayne, 2014; Sugie & Turney, 2017; Wiley & Esbensen, 2016). After an arrest, booked suspects are physically processed from the arrest site to the police station and eventually into a jail cell without conviction for a brief, indeterminate time (Lurigio, 2017). This physical confinement and

loss of freedom does not occur when a suspect is cited and released or released after their case is submitted to court following an arrest. Suspects have personal information recorded, mugshot taken, fingerprints collected, clothing and personal property forfeited, and endure enhanced body searches. Often these mugshots and personal data are uploaded online with an estimated 4.5 million mugshots uploaded annually (Lageson et al., 2020). Fingerprints collected during booking are stored in national and state repositories used in background checks (Raphael & Rozo, 2019). These items create the building blocks of a criminal record and help establish a criminal label that may produce inequality through cumulative disadvantage. This process is particularly salient for racial and ethnic minorities (Sutton, 2013; Wooldridge et al., 2015).

Focal Concerns Framework & Police Stereotypes

While criminal justice research has generally lacked theoretical explanations for findings (Bernard & Engel, 2001; Kraska & Brent, 2011), scholars have theorized several frameworks to explain variations in the criminal justice system, particularly in sentencing. A predominate theory in the field is the focal concerns framework used to explain differences in judicial decision making (Steffensmeier et al., 1998). The scholars propose three focal concerns guide judges sentencing decisions: blameworthiness, community protection, and practical constraints/consequences. Blameworthiness conveys offenders' culpability and having punishment fit the crime, which is measured by offense severity. Community protection conveys judges need to make determinations about future recidivism and dangerousness of the offender, often based on criminal history, case information, or nature of the offense. Practical constraints/consequences convey the need for proper case flow, local/state resources, and offender concerns regarding special needs and hindering ties to family and children. Guided by work by Albonetti (1991) on uncertainty avoidance and causal attribution, Steffensmeier and colleagues (1998) propose judges develop a "perceptual shorthand" to reduce uncertainty of dangerousness of the offender. Often due to limited offender information and time, this shorthand is formed on stereotypes based on race, age, and gender and parallels early work by Skolnick (1966) on the "symbolic assailants" in the policing literature. Membership in certain groups or combinations of groups (i.e., young Black males) may trigger signs of dangerousness and blameworthiness used by judges as informal norms to reduce uncertainty (Steffensmeier et al., 1998). Thus, race, age, and gender, either alone or intertwined, become flags for focal concerns and create disparities in the criminal justice system.

The parallel to policing stereotypes and the hegemonic nature of focal concerns in sentencing (Lynch, 2019) have propelled scholars in other areas of criminal justice to apply the framework. In the policing literature, several scholars have championed the use of focal concerns and drawn parallels to police decision making (Ishoy & Dabney, 2018; Tillyer & Hartley, 2010). The focal concerns framework has been used to explain various policing outcomes like traffic stops (Higgins et al., 2012), taser use (Crow & Adrion, 2011), and sexual assault arrests (O'Neal & Spohn, 2017). Like judges with limited time and information, police officers form a perceptual shorthand seeking to recognize danger based on stereotypes. These stereotypes perpetuate racial

inequalities as police see certain individuals as "symbolic assailants" whose actions or demeanor insinuate danger, irrespective of criminal history (Skolnick, 1966). The social conditioning model expands this idea by emphasizing how repeated negative interactions with minority groups shape officers' unconscious stereotypes that extend to all group members (M. Smith & Alpert, 2007). These stereotypes can affect behavior as officers become more suspicious of certain individuals, primarily non-Hispanic Black[1] suspects (M. Smith et al., 2006) and this in turn influences police actions with respect to group members, particularly during arrests for minor offenses. This would suggest that police decision to book arrests can perpetuate inequality in ways booked arrests or citations do not.

These negative stereotypes inform police officers' focal concerns regarding suspects. Scholars suggest the framework's three focal concerns: blameworthiness, community protection, and practical constraints; apply to policing (Ishoy & Dabney, 2018; Tillyer & Hartley, 2010). Drawing on officers' interviews, Ishoy and Dabney (2018) reveal parallels between judicial sentencing decisions and policing. Like sentencing, blameworthiness in policing involves offense seriousness and harm caused. Thus, officers are more likely to stop, arrest, or book a felony suspect as opposed to a misdemeanor suspect. For police, community protection involves assessing criminal background (e.g., prior record) or suspect demeanor, which scholars cite as two factors that influence police decision-making (Lundman, 1996; Stolzenberg et al., 2020). Practical constraints for policing include mandatory arrest policies, proximity to schools, and high crime or citizen concerns (Ishoy and Dabney, 2018). This framework helps articulate how suspect extralegal, legal, and community factors influence the decision to book arrests.

Suspect Extralegal Factors

Although officers make several decisions during an arrest, such as to book versus release, research primarily focuses on initial decisions to arrest (Kochel et al., 2011; Lytle, 2014), or interactions during traffic stops (Tillyer & Engel, 2013; Lundman & Kaufman, 2003; Rosenfeld et al., 2012). These studies emphasize how extralegal factors play an important role in many police interactions, including "routine" stops (Lundman & Kaufman, 2003; Tillyer & Engel, 2013; Warren et al., 2006), property or person searches (Bolger & Lytle, 2018; Rosenfeld et al., 2012), and arrest in general (Kochel et al., 2011; Lantz & Wenger, 2020). Thus, while legal factors, such as offense seriousness and criminal history are critical (National Research Council, 2004; Stolzenberg et al., 2020; Sun & Payne, 2004), scholars suggest extralegal factors influence officer decision-making throughout their interactions with suspects. These findings suggest officers' perceptual shorthand, as proposed in focal concerns, may mold perceptions of blameworthiness and community protections based on extralegal factors.

Suspect race/ethnicity is a key variable included in prior policing studies and a feature of the perceptual shorthand. Most research focuses on White-Black differ-

[1] To save space, we use the terms Black and White to refer to non-Hispanic Black and White suspects, respectively.

ences in arrest outcomes, though recent studies include Hispanics (Ulmer & Bradley, 2019). Some work finds Black and White suspects face a similar likelihood of arrest (D'Alessio & Stolzenberg, 2003; Mastrofski et al., 1995; Pollock et al., 2012; Pope & Snyder, 2003), while other work finds no difference for Hispanics and White suspects (Andersen, 2015). Yet, more recent studies, including quasi-experimental and meta-analyses, find Black and Hispanic suspects are more likely to be arrested than White suspects (Kochel et al., 2011; Lantz & Wenger, 2020; Lytle, 2014; Tapia, 2010; 2011). In a meta-analysis, Lytle (2014) found Hispanic individuals are 1.25 times and Black individuals 1.4 times more likely arrested than Whites. For booking decisions, Raphael and Rozo (2019) find police in California are more likely to book Black and Hispanic suspects than White suspects; yet prior record, offense, and arresting agency attenuate these differences.

Though research has grown on Hispanics, study location and sampling have precluded the ability to adequately examine Native Americans in the criminal justice system (Brown & Frank, 2006; Gaston, 2019; Sun et al., 2008). This oversight is striking given the group's history of marginalization, lower SES, heightened risk of victimization, and greater substance use (Akins et al., 2013; Tighe, 2014, Turanovic & Pratt, 2017). Franklin (2013) finds Native American males receive the harshest sentences in federal court, arguing they are more disadvantaged than other studied groups. Using Add Health data, Barnes and colleagues (2015) find Native Americans have the highest arrest risk, followed by Blacks, Whites, and Asians. In the Southwest region, where Native American populations are larger than the national average (U.S. Census Bureau, 2019a), the group may present a symbolic threat similar to Blacks in other regions. In this region, the group confronts higher rates of traffic stops compared to White, Hispanic, and Black motorists (Arizona ACLU, 2008) and have increased odds of booking into jail opposed to citation and release compared to Whites for misdemeanor drug and alcohol arrests (Camplain et al., 2020).

A legacy of colonialism and marginalization has relegated Native Americans to physical separation on tribal lands and exposure to negative stereotypes portraying them as "lazy, alcoholic, and violent" (Ulmer & Bradley, 2019, p. 344; also see Alvarez & Bachman, 1996; Perry, 2006). Moreover, like Blacks in other parts of the country, authorities in cities close to reservations may view Native American suspects as "out of place" and deserving of more scrutiny (Gaston, 2019; Weitzer, 2017). Studies find individuals whose race is incongruent with the neighborhood racial context experience worse police outcomes (Gaston, 2019; Gaston et al., 2020). This work shows that Black and Hispanic individuals experience worse outcomes in predominantly White communities (Gaston, 2019; Gaston et al., 2021) while other work finds Whites experience worse outcomes in predominantly Black communities (Gaston et al., 2020; Novak & Chamlin, 2012; Rojek et al., 2012). Since out-of-place policing may increase officer suspicion due to stereotypes of race and notions of belonging in an area (Fagan & Davis, 2000; Gaston et al., 2020), there is reason to expect that Native American individuals may face similar experiences in places like Chandler, where group members may face greater officer suspicion. Police in Chandler may act on negative stereotypes of Native Americans or treat these suspects as if their presence outside of the reservation is suspicious and question their motives for being in the city, notably if they committed a crime, leading to heightened scrutiny and

suspicion regardless of where the suspect lives or the arrest occurs (Gaston, 2019; Gaston et al., 2020). This aggressive policing extends to Native Americans who live and work in Chandler, leading officers to treat them with more suspicion than White suspects. This view of Native American suspects as "symbolic assailants" or offenders who are "out of place" and do not belong may increase officer scrutiny, leading to police action.

Two other suspect-level factors that influence police decision-making are gender and age. Several studies find male suspects have worse arrest outcomes than female suspects (Barnes et al., 2015; Lantz & Wenger, 2020; Sealock & Simpson, 1998; Smith et al., 2006; Tillyer & Engel, 2013). A prevailing argument is that female suspects receive leniency by the criminal justice system due to chivalry and gender stereotypes of women as less dangerous (Steffensmeier, 1980; Visher, 1983). Due to these perceptions, officers may show female suspects leniency during incidents such as traffic stops (Tillyer & Engel, 2013); yet other evidence suggests gender does not affect police decision-making (Vito et al., 2017). These findings are in line with a focal concerns framework. For example, qualitative findings suggest criminal justice actors perceive women as less of a risk to the community; less blameworthy due to victimization, substance use problems, or psychological disorders; and bare responsibility for child welfare that could economically strain the system (Steffensmeier et al., 1998).

The relationship between suspect age and police decision-making is uncertain (Riksheim & Chermak, 1993). In line with early focal concerns research showing sentence severity peaked between the ages of 21–29 but was lowest for those under 21 and older than 50 (Steffensmeier et al., 1998), studies of official data suggest officers are stricter with suspects during the peak of the age-crime curve, with young adults having greater likelihood of arrest than juveniles and older adults (Hirschi & Gottfredson, 1983; Stolzenberg & D'Alessio, 2008). This work suggests that officers treat youthful offenders with leniency for minor crimes, choosing to handle situations informally (Liederbach, 2007). However, other research finds that suspect age does not impact officers' decisions (Lytle, 2014; Smith & Visher, 1981; Sun & Payne, 2004).

Drawing on prior research on suspect-level extralegal factors and police decision-making, our primary research question asks whether suspects of color (Black, Hispanic, and Native American) have greater odds of booked arrest than White suspects. Additionally, we consider whether female suspects have lower odds of booked arrest than male suspects. Finally, we consider the relationship between age and booked arrest.

Neighborhood-Level Factors

A growing number of studies demonstrate how neighborhood characteristics and features of the area surrounding an arrest inform police focal concerns and influence decision-making. These include demographic characteristics, such as racial/ethnic composition and neighborhood SES, as well as practical constraints like crime levels and school-zones (Gaston, 2019; Ingram, 2007; Lum, 2011; D. Smith, 1986). For example, areas characterized by high minority concentration or economic marginal-

ization may foster perceptions of dangerousness and blameworthiness of offenders in the area as officers' stereotypes of individuals extends to the group, leading officers to use more police action (arrest, citation, and stops) in these neighborhoods. Smith (1986) finds police are three times more likely to arrest someone in a "low-status area" (according to SES scale) than in a "high-status area" and use coercive authority more often in racially heterogenous neighborhoods. Recent studies find officers are more likely to perform searches during traffic stops (Hannon et al., 2020; Petrocelli et al., 2003), frisk suspects (Levchak, 2017), or issue citations (Ingram, 2007) in neighborhoods with higher percentages of Black or Hispanic residents. Evidence suggests that community factors influence police decision-making even after the initial decision to arrest. In California, areas of larger Black and Hispanic populations have higher juvenile booking rates (Raphael & Rozo, 2019). Conversely, some studies find that police are less likely to make an arrest (Andersen, 2015) or more likely to downgrade offenses (Lum, 2011) in predominately Black areas.

Neighborhood crime rates also influence police action and decision-making (Gaston, 2019; Ingram, 2007; Lum, 2011; D. Smith, 1986). While most studies find a positive relationship between crime rates and police actions, results are inconsistent. Smith (1986) suggests a threshold effect may exist, as high crime areas have lower likelihood of incident reports, suggesting police in these areas may only intervene in the more serious crimes that do get reported. In his ecological theory of policing, Klinger (1997) argues that police are less likely to respond to minor offenses in high crime areas because police: (1) believe residents are undeserving or victimless; (2) become cynical of the law's effectiveness; (3) have to deal with serious crime, often with limited resources; and (4) seek to limit their time spent dealing with minor crimes.

Chandler's proximity to tribal land may influence police decision-making. Interviews of Native Americans in border towns and reservations report these areas to be both under- and over-policed (Perry, 2009). Respondents thought police use too much surveillance, which helps explain higher arrest rates among Native Americans, while also under-servicing them when members are victims. Reservation members may also leave the land to purchase items or alcohol at nearby establishments across the border, where they are seen as "outsiders" and more policed (Camplain et al., 2020; Gaston, 2019). The proximity to the reservation may increase the visibility of Native Americans and others to be seen as a symbolic threat that can impact police actions. This may be particularly salient away from the reservation, where Native Americans may be considered "out-of-place" by local police. Since out-of-place policing may increase in areas with low Native American concentration or places farther away from the reservation, there is reason to expect that Native Americans' higher booking odds may instead reflect officer suspicion due to stereotypes of race and notions of belonging in an area (Fagan & Davis, 2000; Gaston et al., 2020).

Officers' views of Native Americans as crime prone and violent may inform officers' focal concerns and increases likelihood of formal actions, suggesting a greater likelihood of booked arrests (Ulmer & Bradley, 2019). Drawing on prior research on the relationship between neighborhood-level factors and police decision-making, we ask how neighborhood factors such as socioeconomic or racial/ethnic composition influence odds of booked arrest.

Suspect-level Legal Factors

A major obstacle to the application of a focal concerns framework to police decision-making has been the inability to adequately control for important legal factors. Due to the lack of quality data, few police decision-making studies can control for offender prior record (Stolzenberg et al., 2020), an important indicator of both offender blameworthiness and community protection (dangerousness). In a meta-analysis of factors associated with arrest, Lytle (2014) found that just 15 of 45 studies controlled for seriousness of offense, further underscoring how prior studies overlook key focal concerns of criminal justice actors. Offense seriousness is usually measured by comparing misdemeanors and felonies. Felonies are more likely to end in serious police action because police have less discretion in felony arrests; and felons are considered more dangerous (Brown & Frank, 2006; Brown et al., 2009; Smith & Visher, 1981). Prior record can influence officers' perceptions of dangerousness and promote the belief that recidivating offenders pose a threat to the community. Smith and colleagues (2006) found that suspects with prior records have a higher likelihood of arrest. Stolzenberg and colleagues (2020) analyzed decision to arrest across five jurisdictions and found that suspects with a prior record were 29 times more likely arrested than those without a record. When examining traffic searches, Klahm and Tillyer (2015) found drivers with criminal histories were more likely subjected to discretionary searches. Also, criminal history mediates the relationship between race and discretionary searches, suggesting failing to account for prior record may overstate racial disparities in policing (Stolzenberg et al., 2020; Tillyer, 2014). Drawing on prior research on the relationship between suspect-level legal factors and police decision-making, we ask how prior arrests and felony arrests influence odds of booked arrest.

Data & Methods

Research Setting

Chandler is located in Maricopa County, Arizona. As a suburb of Phoenix, it is now Arizona's fourth largest city, with over 250,000 residents. Chandler is an ethnically/racially diverse suburban city, with a population that is 58.5% White, 20.8% Hispanic, 5.6% Black, 10.7% Asian, and almost 2% Native American (U.S. Census Bureau, 2019b). The city borders the Gila River Indian Community (GRIC) to the South, with a population of over 11,000 over 583 square-miles (Gila River Indian Community, n.d), and the Wild Horse Pass Casino operates just 10 miles from downtown Chandler. As a diverse and growing suburb, Chandler provides an ideal location to analyze how extralegal and legal factors' impact officer decision-making outside of larger metropolitan areas in prior work (Brown & Frank, 2006; Gaston, 2019; Sun et al., 2008).

Chandler Police Department had 331 sworn officers and 169 civilian employees in 2019 (Chandler Police Department (CPD), n.d). The department is majority White (87%), 10% Hispanic, 1.6% Black and 1.6% Asian (DOJ, 2016). The department

operates an Open Data website with arrest bookings uploaded daily. In Summer 2016, CPD issued body-worn cameras (BWCs) to patrol officers (CPD, 2018). While there is early evidence that BWCs lead to fewer arrests and citizen complaints (Ariel, 2016), there is no research on how they affect post-arrest police decisions. Since we want to take advantage of all available data and believe our modeling approach addresses these policy changes, we include and do not restrict our analyses to the years CPD implemented BWCs. Also, we include and discuss models using a limited sample of arrests between 2017 and 2019 in an online supplement (Table OS1).

Data

Our primary data source is the Chandler Police Department's arrest and booking records (Chandler Police Department (CPD), 2021). These reports generate in several instances: (1) officers take individuals into custody and book them in jail; (2) officers arrest and release an individual pending a submitted charge; (3) officers refer a juvenile to court for criminal charges; and (4) officers issue a citation (CPD, 2021). The reports indicate whether the suspect was arrested and booked under new charges, cited and released without booking, or whether a case was submitted and the offender released pending investigation of new charges[2]. The data include information on the type of offense, the severity of the offense (misdemeanor or felony), the latitude and longitude of the arrest/citation, and suspect and officer demographic characteristics, including race, ethnicity, age, and gender. For officers, the data supplies years of service and unit the officers work for. The reports provide unique officer and suspect IDs, which allow tracking the individual for prior arrests/citations. While CPD provides up to date information on all arrest reports since January 1, 2013, we focus on data from 2013 to 2019 to avoid issues with the Covid-19 pandemic.

We use the latitude and longitude for each arrest to merge the CPD booking data with data from the 2009-2013 through 2015-2019 American Community Survey five-year surveys, the Common Core Data's Public Elementary/Secondary School Universe Survey Data, CPD data on calls for service, and distance from the GRIC. We entered latitudes and longitudes into the Federal Communications Commission (FCC) API documentation website (FCC, 2021) to identify the block group that each incident occurred and calculated distance from the GRIC and local schools using the *geodist* command in Stata 16.0 (Weber & Pèclat, 2017).

CPD provides booking data for 97,183 arrests between 2013 and 2019. For our purposes, we focus on five non-Index offenses: cannabis possession, paraphernalia, shoplifting, criminal damaging, and non-DUI traffic offenses. We focus on these offenses for multiple reasons. First, officers react differently to drug (cannabis and paraphernalia), minor property (shoplifting and criminal damage), and non-DUI traffic offenses due to individual discretion (Liederbach, 2007). Officers may take a punitive stance against drug offenses, which may increase chances of booking as opposed to release for those offenses (Jorgensen, 2018; Petrocelli et al., 2014). Second, the

[2] Some offenders that would otherwise be released pending investigation of the incident (i.e., the arrest captured in the data) may have an outstanding warrant for previous charges and potentially booked under those charges (O'Connor, 2019).

minor crimes in our study have higher female participation rates (Steffensmeier & Allan, 1996), allowing us to better examine gender and booking.

Of the 28,762 relevant incidents, we exclude those who are missing information on latitude/longitude ($n=1{,}639$), arrest outcome ($n=267$), officer race or gender ($n=517$), and those incidents in which the offender's race/ethnicity was not one of our four categories ($n=231$). Notably, Arizona and CPD have different policies and procedures for arresting juvenile and adult offenders. For example, although cannabis possession was considered a felony in Arizona before legalization in late 2020, in cannabis cases with juvenile offenders, police will submit charges directly to the court to avoid booking and a stay in jail (O'Connor, 2019). Consequently, we exclude juvenile suspects ($n=2{,}208$). Finally, since CPD changed their records-keeping between 2012 and 2013, we are unable to capture arrests prior to January 1, 2013. To ensure we can measure prior arrests, at least in the past year, we restrict our analyses to 2014–2019[3]. After removing 2013 arrests ($n=2{,}730$), our final sample includes 21,165 cannabis, paraphernalia, shoplifting, criminal damage, and non-DUI traffic arrests between 2014 and 2019.

Dependent Variable

Our dependent variable is a dummy variable equal to "1" if the suspect was *booked* into jail under new charges. The reports distinguish between three types of arrests: booked under new charges, cite and released without booking, or submitting a case without booking. However, we choose to collapse the two categories that do not result in booking for several reasons. First, non-booked arrestees do not serve time in jail and are released (for that offense) until the next step in their case, while booked arrestees serve jail time and have their information and mugshot recorded. Although released suspects may have information recorded, officers are permitted to seek authorization to skip certain steps (e.g., mugshots) and given more discretion when releasing suspects (CPD, 2019). Second, with few exceptions, CPD frequently uses either cite and release or submits a case in lieu of booking for specific offenses. CPD, also, has similar policies and procedures for cite and release and case submitted arrestees. Finally, law enforcement, law professionals, and the press throughout the state typically compare booked to non-booked arrests, suggesting that this is a common and professional comparison (CPD, 2019; O'Connor, 2019)[4].

[3] Results from models including 2013 do not differ significantly from those presented and are available in an online supplement (See Table OS2).

[4] Results from multinomial logistic models comparing booking to cite and release or case submitted arrests yield similar findings to those presented and are available in an online supplement (See Table OS3).

Independent Variables

Suspect Variables

A large body of research suggests that suspect extralegal factors such as race/ethnicity, gender, and age influence officers' decision-making (Brown et al., 2009; Lantz & Wenger, 2020; D. Smith, 1986; Smith et al., 2006; Stolzenberg & D'Alessio, 2008). We measure *suspect race/ethnicity* using a series of dummy variables indicating whether the suspect was White (reference), Black, Hispanic, Native American, or Asian. We measure *suspect gender* using a dummy variable equal to "1" for female suspects. To account for arrestees across the age-crime curve (Stolzenberg & D'Alessio, 2008) and the potential for officers to treat youthful or older offenders differently for less serious crimes (Liederbach, 2007), we include *suspect age* and *age-squared*. Finally, we control for the suspect's recent criminal history using a measure of *prior arrests* over the past year (using the natural log to control for skewness and non-linearity)[5]. We argue more recent offenses may influence officers more than distant criminal activity and recent arrest may reveal patterns of repeated criminal activity (Kurlychek et al., 2006).

Officer Variables

We control for several officer-level factors that may influence decision-making (Klahm & Tillyer, 2015; Lundman, 2009; Tillyer et al., 2019), We measure *officer race/ethnicity* using a dummy variable equal to "1" if a non-White officer made the arrest. Given prior findings suggesting male and female officers respond differently to similar instances (Lundman, 2009; Novak et al., 2011), we control for *officer gender* using a dummy variable equal to "1" for female officers. We include a measure of *officer years of service*, on the premise that more experienced officers are less likely to search suspects (Tillyer et al., 2019) or more likely to arrest (M. Smith & Petrocelli, 2001).

Neighborhood Variables

Since our interest in both demographic and economic neighborhood-level factors, we use the census block group to measure neighborhood (Hipp, 2007). In line with our focus on race and ethnicity and to capture the growing diversity of Chandler, we measure neighborhood racial/ethnic composition using a series of time-varying variables measuring the proportion of the census block group where the arrest occurred that is Black (*percent Black*), Hispanic (*percent Hispanic*), Native American (*percent Native American*), and Asian (*percent Asian*). We capture neighborhood SES using *median household income* (in 2019 dollars, standardized in regression analyses). We chose this measure over a more traditional measure (e.g., poverty rate) because we argue it better captures the economic conditions of suburbs like Chandler, which

[5] Results from models including a measure of *all* prior arrests since 2013 do not differ significantly from those presented and are available in an online supplement (See Tables OS4).

lack large pockets of concentrated disadvantage or signs of disorder typically associated with crime and policing in urban areas (Beck, 2019). Because Chandler was a growing city throughout the decade, we control for the proportion of the block group that moved to the neighborhood in the past year (*percent new movers*). Finally, we control for the presence of the most crime prone population, males between 15 and 34 years old (*percent males 15–34*). Because many of our dependent variables are collected before the ACS is administered each year, we use one-year lags for all our demographic variables. Officers face many practical constraints in the daily performance of their duties and pressure from superiors that impact how they enforce the law. Police may respond differently to arrests in "high need" areas with frequent calls for service than in areas of low need. We include the number of *911 Calls in past 24 hours* at census block group level.

Offense-level Variables

Since Arizona has laws mandating arrest for certain crimes in school zones (e.g., drug offenses), we include dummy variable equal to "1" if the arrest occurred in a school zone (within 1,000 feet of a school)[6]. Given Chandler's proximity to the GRIC, police may make different decisions regarding Native American suspects and Native American neighborhoods may have different policing approaches closer to the reservation (Perry, 2009). To account for these possibilities, we control for *distance from the GRIC*. This measure was created using the *geodist* command in Stata 16.0 and is operationalized as the distance from the arrest to the nearest access point (by car) to the GRIC[7]. Importantly, offenders may be charged with more than one crime during the arrest and severe crimes are likely to receive stern responses. Following Camplain and colleagues (2020), we include a dummy variable equal to "1" for a *felony arrest* in which the arrestee had any felony charges (misdemeanors reference).

Finally, crime and policing decisions are subject to seasonal and temporal factors (Andresen & Malleson, 2015; McDowall et al., 2012). For example, cannabis use may be higher during the fall or spring, when college students are still in town and people are not inside avoiding the hot summers. Additionally, federal, state, and local policies may result in subtle changes to the way officers respond to minor crime incidents between 2014 and 2019. To account for daily, weekly, seasonal patterns, and trends of behavior and crime, we include multiple categorical variables capturing the year, month, day of week, and time of day.

[6] According to the Arizona Revised Statutes, the definition of "school zones" includes school buildings, as well as school bus stops, school busses, or busses transporting pupils to and from school (A.R.S. § 13–3411). Because access to data on the location of school bus stops is restricted from the public, our measure is based on distance to physical school buildings.

[7] We identified six places where drivers could cross the border between Chandler and the GRIC (I-10 exit at the Gila River Hotel and Casino, Kyrene Rd., McClintock Rd., Gilbert Rd, Highway 587, Queen Creek Rd.) and calculated the distance between each arrest and each crossing point. We use the smallest of these values to measure our *distance from* GRIC variable as shortest possible distance from entering/exiting the reservation and the location of arrest (ranging from 0.02 to 11.7 miles). We ran supplemental models using different specifications (e.g., distance to center of GRIC, distance from each entrance/exit point, distance from largest casino on GRIC) and results are similar to those presented and are available by request.

Due to nearly all cannabis arrests involve a felony, we exclude our felony arrest dummy variable from models for this offense. Moreover, we found that a linear measure better fits the data and explains the relationship between age and cannabis booking. Consequently, we exclude *age-squared* from our cannabis models[8]. To address concerns with multicollinearity, we run a series of correlations tables (Tables OS6-OS10). Tests of variance inflation (highest mean VIF <3.5) and sensitivity analyses suggest multicollinearity is not an issue[9].

Analyses Plan

Notably, our dataset has a complex structure. Over time, suspects are arrested by multiple officers for different offenses, officers arrest multiple suspects, and arrestees and officers interact with one another in different block groups. This structure differs from traditional nested, multilevel data in that arrests and arrestees are nested within two higher-level groupings, officers and block groups, that are crossed with one another (e.g., officers work across multiple block groups and multiple officers work in the same block group), suggesting that these data are cross-classified. To examine whether the odds of booking after an arrest varied across our higher-level units (officers and block groups), we ran a series of unconditional models using HLM 7.03 (see Table OS11). With one exception, the odds of booking following an arrest varied significantly across officers and across block groups. The odds of booking following a cannabis arrest did not vary across block groups. These results suggest that we follow prior research on police stops using similarly nested data (e.g., Tillyer et al., 2019) and employ cross-classified models (Cameron and Miller 2015; Gu & Yoo, 2019; Raudenbush and Bryk, 2002). A cross-classified model is conceptually similar to a traditional two-level model that accounts for two second-level structures within the multilevel model. Coefficients for all level-two variables are interpreted as the "effect" of the variable after controlling for both level-1 and level-2 effects (Raudenbush and Bryk, 2002; Tillyer, et al., 2019)[10].

Since our dependent variable is a dummy variable indicating whether an incident resulted in a booked arrest, we estimate a series of cross-classified logistic regression models for five separate offenses (cannabis possession, paraphernalia, shoplifting, criminal damage, and non-DUI traffic crimes) with arrests at level-1 and officers and block groups at level-2. Finally, we use year, month, day, and time dummy variables allowing us to control for time-related characteristics associated with crime (e.g., weekends and late nights), adjust for seasonal variation in crime and policing, and account for changes in local policies and attitudes (Allison, 2009).

[8] Results from models using alternate specifications of age are presented in the online supplement (See Table OS5).

[9] We tested variance inflation factors (VIFs) running the regression command in Stata 16.0 and using multiway clustered standard errors. We removed potentially problematic variables (VIF > 5.0) with no significant changes in our findings.

[10] We ran supplemental models using traditional two-level clustering (arrests within officers, arrests within block groups) and multi-way clustered standard errors using the *vcemway* in Stata 16.0 (Gu & Yoo, 2019). Results for all models yield similar findings and are available by request.

Results

Table 1 presents descriptive statistics for all variables included in our analyses, by total sample and offense. For the five crimes included in our study, 30.8% of suspects were booked into jail, 51.6% were cited and released, and 17.6% were arrested and released pending further investigation. These patterns varied across offenses. Looking at drug arrests, 27.1% of cannabis suspects and 37.3% of paraphernalia suspects were booked into custody. Of the drug suspects who were not booked due to their drug arrest, most were released pending further investigation. In total, 52.3% of cannabis suspects and 35.4% of paraphernalia suspects were released after their case was submitted, while 20.6% of cannabis suspects and 27.3% of paraphernalia suspects were cited and released on-site.

Turning to non-drug crimes, 35.9% of shoplifting suspects were booked into jail following arrest. A large majority (76.2%) of criminal damaging suspects were booked into jail. Relatively few (11.9%) of those arrested for non-DUI traffic offenses were booked into jail. Unlike drug suspects, just 7.3% of shoplifting suspects, 13.5% of criminal damage suspects, and 6.7% of those arrested for non-DUI traffic offenses were released after their case was submitted. Finally, 56.8% of shoplifting suspects and 10.3% of criminal damage suspects were cited and released, while 81.4% of those arrested for non-DUI traffic offenses.

There are notable differences in our suspect- and neighborhood-level variables across arrest type. Notably, racial and ethnic minorities are over-represented in their arrest numbers, as 44% of arrests were of White suspects, 14% were of Black suspects, 33.5% were of Hispanic suspects, 1.3% as reporting Asian descent, and 7.1% were Native American. However, the racial/ethnic breakdown of arrests varied across type. For example, although Chandler's population is nearly 2% Native American, the group constitutes 7% of the arrestees in our sample and 12.6% of shoplifting arrestees are Native American.

On average, suspects were slightly younger than 32 years old. Cannabis arrestees were younger (27 years old) than other arrestees, while traffic suspects (33.8 years old) were slightly older. Though female suspects make up 31.8% of all suspects, the gender distribution across crimes is noticeable. Just 20% of cannabis arrestees were female, while almost half (49.8%) of shoplifting arrests involved female suspects. On average, suspects had 0.9 prior arrests during the year prior to their current arrest[11]. This number was higher for paraphernalia (1.5) than for traffic suspects (0.4). Turning to officer variables, about one in five arresting officers in Chandler is not White (20.1%). On average, Chandler police have served around 7 years on the job. Lastly, only 7.6% of arresting officers are female.

On average, Chandler block groups in which a minor arrest occurred were 4.7% Black, 19.9% Hispanic, 2.4% Native American, and 7.5% Asian. The median neighborhood household income is $64,474.77 per year. As a rapidly changing city, 14.6% of each neighborhood moves in each year. Notably, cannabis arrests occur in block

[11] A majority (72%) of suspects in our data were only arrested once and 95% were arrested three or fewer times.

Table 1 Descriptive statistics for variables used in all analyses

	Total		Cannabis		Paraphernalia		Shoplifting		Criminal Damaging		Traffic	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Arrest & Booking (New Charges)	0.308		0.271		0.373		0.359		0.762		0.119	
Cite & Release (No Booking)	0.516		0.206		0.273		0.568		0.103		0.814	
Warrant or Submitted Case (No Booking)	0.176		0.523		0.354		0.073		0.135		0.067	
Suspect-level Variables												
Suspect Race/Ethnicity												
Non-Hispanic White	0.440		0.391		0.455		0.483		0.491		0.405	
Non-Hispanic Black	0.140		0.201		0.114		0.113		0.157		0.151	
Hispanic	0.335		0.344		0.381		0.262		0.282		0.360	
Asian	0.013		0.011		0.009		0.015		0.020		0.014	
Native American	0.071		0.053		0.041		0.126		0.050		0.069	
Suspect Age	31.823	11.085	27.045	9.573	29.666	9.752	32.400	11.425	31.774	10.320	33.826	11.626
Female Suspect[a]	0.318		0.202		0.265		0.498		0.271		0.287	
Arrests in Past Year[b]	0.859	2.267	0.687	1.846	1.530	3.097	1.042	2.564	0.908	2.366	0.386	1.211
Officer-level Variables												
Non-White Officer	0.201		0.210		0.240		0.154		0.171		0.210	
Officer Experience (in years)	7.081	6.352	6.179	5.880	6.222	5.652	7.345	6.169	7.163	6.547	7.623	6.789
Female Officer[a]	0.076		0.063		0.065		0.118		0.122		0.050	
Block Group-level Variables[c]												
Percent Non-Hispanic Black	4.650	5.821	3.987	3.973	4.431	6.069	5.824	6.040	4.574	4.951	4.631	6.268
Percent Hispanic	19.886	18.742	20.453	18.330	22.037	21.532	19.268	17.516	19.655	19.189	18.882	17.386
Percent Native American	2.396	8.684	1.089	1.910	3.073	10.358	2.952	9.481	1.820	5.982	2.461	9.380
Percent Asian	7.504	7.208	7.795	6.893	6.581	6.706	6.107	5.168	6.836	6.488	8.461	8.042

Table 1 (continued)

	Total		Cannabis		Paraphernalia		Shoplifting		Criminal Damaging		Traffic	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Median Household Income (in US dollars)	64474.77	37917.26	70216.58	42196.46	60174.79	34633.90	65050.18	33825.00	66794.20	35727.97	64068.31	40252.39
911 Calls in past 24 Hours	0.179	0.665	0.230	0.997	0.195	0.611	0.343	0.862	0.133	0.474	0.144	0.625
Percent Recent Movers	14.591	15.169	12.360	12.710	14.095	14.647	15.800	14.413	14.429	15.036	15.004	16.028
Percent Young Males (15–24 years old)	7.164	4.936	6.743	3.609	7.792	5.860	6.247	3.640	6.775	4.104	7.305	5.230
Offense-level Variables												
Schoolzone	0.145		0.181		0.171		0.061		0.129		0.173	
Felony Arrest[c]	0.341		0.995		0.801		0.137		0.160		0.097	
Distance from Gila River Community (miles)	5.371	2.452	5.394	2.451	5.702	2.383	5.205	2.544	5.686	2.439	5.168	2.418
N (Arrests)	21,165		1,708		4,704		4,398		2,319		8,123	
N (Suspects)	14,193		1,603		2,646		3,497		2,054		6,818	
N (Officers)	347		252		293		282		290		305	
N (Block Groups)	163		143		151		96		154		157	

[a]Reference is male

[b]Total arrests in the past year by Chandler PD (2013–2019)

[c]All block-group level descriptive statistics are at the block-group level and not arrest level

[d]At least one felony charge during incident, reference is Misdemeanor arrest

groups with relatively smaller minority populations and relatively higher median incomes.

Regarding offense-specific variables, about 14.5% of all arrests occurred within 1,000 feet of a school. Almost one in five drug arrests (18% of cannabis and 17.1% of paraphernalia) occurred within a school-zone, while just 6.1% shoplifting arrests were close to school property. Of all the arrests in our sample, 34% were part of a felony arrest. However, almost all cannabis arrests (99.5%) and a large majority of paraphernalia arrests (80.1%) included felony charges, compared to shoplifting (13.7%), criminal damaging (16%), and traffic offenses (9.7%). On average, arrests in Chandler occurred a little over 5 miles from the GRIC border.

Table 2 presents odds ratios ($e^{\beta x}$) of booked arrest (compared to cite/release and release pending further investigation) for cannabis, paraphernalia, shoplifting, criminal damage, and non-DUI traffic. Results suggest several factors influence the decision to book suspects, but these factors vary across crime types. In every model, at least one suspect extralegal or legal, officer extralegal, or neighborhood factor reached statistical significance.

Various factors are associated with the decision to book arrests for cannabis possession. The odds of booking for Native American cannabis suspects are 155% higher[12] than those of White suspects. Older cannabis suspects have higher odds of booking than younger suspects. A 100% increase in the number of charges over the past year was associated with 63.8% higher odds of booking for cannabis suspects. A 1% point increase in the relative size of the neighborhood Native American population is associated with 1.2% higher odds of booking for a cannabis arrest.

The second model in Table 2 presents odds ratios ($e^{\beta x}$) of booking for a drug paraphernalia arrest. Compared to White paraphernalia suspects, Hispanic suspects (32.7%) and Native American suspects (66.9%) have higher odds of booking. The relationship between age and booking for a paraphernalia arrest is curvilinear, increasing at a decreasing rate. Following the age-crime curve (Hirschi & Gottfredson,1983), older paraphernalia suspects are more likely to be booked than younger suspects, but this relationship wanes at older ages. Each 100% increase in the number of arrests in the past year was associated with a 35.8% increase in paraphernalia booking. A 1% point increase in the relative size of the neighborhood Hispanic or Native American populations are associated with 0.5% and 1.4% higher odds of booking for a paraphernalia arrest, respectively. At the offense-level, paraphernalia charges as part of felony arrests had 22.4% higher odds of booking than misdemeanor paraphernalia arrests. Finally, for every mile away a paraphernalia arrest occurred from the GRIC, the odds of booking following a paraphernalia arrest increased by 4.7%.

The third model in Table 2 includes arrests for shoplifting. The odds of booking for Native American shoplifting suspects are 71.6% higher than White suspects. The relationship between age and booking for shoplifting increases at a decreasing rate. Although almost half of shoplifting suspects in Chandler are female, female suspects have 34.2% lower odds of being booked into jail compared to male suspects. Each 100% increase in the number of arrests in the past year was associated with a 62.4%

[12] Throughout the results section, we calculate percent differences using the formula $100*[e^{\beta x}] - 1$.

Table 2 Odds Ratios (With 95% Confidence Intervals) of Booked Arrest (Compared to Cite and Release or Warrant or Submitted Case), Chandler (AZ) 2014–2019

	Cannabis			Paraphernalia			Shoplifting			Criminal Damaging			Traffic		
	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI
Suspect-level Variables															
Suspect Race/Ethnicity[a]															
Non-Hispanic Black	0.238	1.269	(0.896,1.798)	0.201	1.222	(0.979,1.527)	0.103	1.108	(0.875,1.402)	**0.421**	**1.524**	**(1.089,2.133)**	0.137	1.146	(0.899,1462)
Hispanic	0.240	1.271	(0.934,1.730)	**0.238**	**1.327**	**(1.137,1.549)**	0.087	1.091	(0.913,1.304)	0.138	1.148	(0.861,1.529)	0.161	1.174	(0.973,1.417)
Asian	0.861	2.365	(0.787,7.100)	0.189	1.208	(0.596,2.449)	−0.265	0.767	(0.382,1.539)	0.355	1.426	(0.639,3.184)	−0.185	0.831	(0.366,1.886)
Native American	**0.936**	**2.550**	**(1.470,4.423)**	**0.512**	**1.669**	**(1.177,2.366)**	**0.540**	**1.716**	**(1.361,2.164)**	0.042	1.043	(0.619,1.758)	**0.633**	**1.883**	**(1.390,2.550)**
Suspect Age	**0.023**	**1.023**	**(1.010,1.037)**	**0.128**	**1.137**	**(1.094,1.182)**	**0.109**	**1.116**	**(1.073,1.160)**	**0.095**	**1.100**	**(1.038,1.166)**	**0.086**	**1.089**	**(1.045,1.135)**
Suspect Age^2				**−0.002**	**0.998**	**(0.998,0.999)**	**−0.001**	**0.999**	**(0.998 0.999)**	**−0.001**	**0.999**	**(0.998,0.999)**	**−0.001**	**0.999**	**(0.998,0.999)**
Female Suspect[b]	−0.048	0.954	(0.696,1.306)	−0.024	0.976	(0.838,1.138)	**−0.418**	**0.658**	**(0.568,0.763)**	−0.077	0.926	(0.722,1.188)	−0.164	0.849	(0.708,1.018)
Arrests in Past Year (logged)[c]	**0.493**	**1.638**	**(1.332,2.014)**	**0.306**	**1.358**	**(1.245,1.481)**	**0.485**	**1.624**	**(1.458,1.810)**	**0.268**	**1.307**	**(1.078,1.585)**	**0.565**	**1.759**	**(1.525,2.029)**
Officer-level Variables															
Non-White Officer	0.210	1.233	(0.758,2.005)	0.040	1.041	(0.761,1.422)	0.130	1.139	(0.819,1.583)	0.150	1.162	(0.804,1.680)	−0.047	0.955	(0.638,1.428)
Officer Experience (in years)	−0.009	0.991	(0.963,1.021)	−0.010	0.990	(0.972,1.008)	−0.015	0.985	(0.967,1.004)	**0.062**	**0.940**	**(0.921,0.960)**	**−0.023**	**0.977**	**(0.955,0.999)**
Female Officer[b]	−0.003	0.997	(0.545,1.825)	0.188	1.207	(0.836,1.743)	−0.053	0.948	(0.671,1.341)	0.109	1.115	(0.740,1.681)	0.214	1.239	(0.778,1.973)
Block Group-level Variables															
Percent Non-Hispanic Black	−0.011	0.989	(0.968,1.010)	−0.008	0.992	(0.980,1.005)	0.010	1.010	(0.993,1.027)	−0.014	0.987	(0.965,1.009)	0.005	1.005	(0.991,1.019)
Percent Hispanic	0.004	1.004	(0.997,1.012)	**0.005**	**1.005**	**(1.001,1.010)**	0.004	1.004	(0.997,1.011)	−0.001	0.999	(0.990,1.007)	**0.005**	**1.005**	**(1.001,1.010)**
Percent Native American	**0.012**	**1.012**	**(1.000,1.023)**	**0.014**	**1.014**	**(1.006,1.022)**	0.009	1.009	(0.997,1.023)	0.011	1.011	(0.996,1.027)	**0.009**	**1.009**	**(1.001,1.017)**
Percent Asian	−0.012	0.988	(0.963,1.014)	0.000	1.000	(0.984,1.017)	−0.007	0.993	(0.972,1.015)	0.012	1.012	(0.987,1.037)	0.006	1.006	(0.991,1.020)
Median Household Income (standardized)	−0.003	0.997	(0.796,1.249)	−0.010	0.990	(0.865,1.134)	0.081	1.085	(0.883,1.332)	−0.141	0.868	(0.706,1.067)	0.023	1.023	(0.897,1.167)
911 Calls in past 24 Hours	0.002	1.002	(0.900,1.117)	0.000	1.000	(0.941,1.062)	0.024	1.025	(0.966,1.087)	−0.059	0.942	(0.855,1.038)	0.061	1.062	(0.998,1.131)
Percent Recent Movers	0.007	1.007	(0.994,1.020)	0.005	1.005	(0.997,1.013)	−0.001	0.999	(0.991,1.008)	−0.005	0.995	(0.982,1.008)	−0.003	0.997	(0.989,1.005)
Percent Young Males (15–24 years old)	0.002	1.002	(0.982,1.022)	−0.005	0.995	(0.981,1.008)	−0.025	0.975	(0.955,0.997)	**−0.027**	**0.973**	**(0.949,0.998)**	0.003	1.003	(0.990,1.017)

Table 2 (continued)

	Cannabis			Paraphernalia			Shoplifting			Criminal Damaging			Traffic		
	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI
Offense-level Variables															
Schoolzone	−0.302	0.740	(0.521,1.051)	−0.122	0.885	(0.725,1.081)	−0.100	0.905	(0.593,1.382)	−0.073	0.929	(0.641,1.348)	−0.067	0.936	(0.750,1.167)
Felony Arrest[d]				**0.202**	**1.224**	**(1.026,1.460)**	**1.678**	**5.355**	**(4.332,6.619)**	**0.822**	**2.275**	**(1.568,3.300)**	**2.036**	**7.657**	**(6.297,9.311)**
Distance from Gila River Community (miles)	0.055	1.057	(0.990,1.129)	**0.046**	**1.047**	**(1.015,1.081)**	0.008	1.008	(0.964,1.054)	**0.056**	**1.058**	**(1.005,1.113)**	0.020	1.020	(0.989,1.052)
Intercept	−1.606	0.201	(0.072,0.561)	−3.961	0.019	(0.007,0.052)	−2.614	0.073	(0.024,0.227)	0.112	1.118	(0.235,5.329)	−4.461	0.012	(0.004,0.034)
Variance Components															
Officer		**0.766**			**0.458**			**0.467**			**0.290**			**0.811**	
Block Group		0.033			**0.053**			**0.045**			**0.353**			0.022	
N (Arrests)		1,708			4,704			4,398			2,319			8,123	
N (Suspects)		1,603			3,653			3,497			2,055			6,832	
N (Officers)		252			294			282			290			305	
N (Block Groups)		143			151			96			154			157	

[a]Reference is Non-Hispanic White

[b]Reference is male

[c]Total arrests in the past year by Chandler PD (2013–2019)

[d]At least one felony charge during incident, reference is Misdemeanor arrest

Bolded coefficients equal statistical significance

All models include fixed effects for year (2014-2019), month (January-December), day of week (Monday-Friday), and time of day (12a-5a;5a-9a;9a-6p;6-12a)

increase the odds of booking for shoplifting. At the offense-level, the odds of booking for shoplifting are 5.4 times higher for felony arrests than for misdemeanors.

The fourth model in Table 2 presents odds ratios ($e^{\beta x}$) of booking for criminal damaging. The odds of booking for Black criminal damaging suspects are 52.4% higher than Whites. The relationship between age and booking for criminal damaging is curvilinear. Each 100% increase in the number of arrests in the past year was associated with a 30.7% increase in criminal damaging booking. At the officer-level, each year of experience is associated with 6% lower odds of booking following a criminal damaging arrest. At the neighborhood level, a 1% point increase in the relative size of the young, male population is associated with 2.7% lower odds of booking a suspect for criminal damaging. Criminal damaging suspects with felony arrests have 127.5% higher odds of booking than criminal damaging misdemeanors. Finally, for every mile away a criminal damage arrest occurred from the GRIC, the odds of booking increased by 5.8%.

The final model in Table 2 presents odds ratios ($e^{\beta x}$) of booking for non-DUI traffic charges. Native American drivers have 88.3% higher odds of being booked on a traffic arrest compared to White drivers. The relationship between age and booking following a traffic arrest is curvilinear, increasing at a decreasing rate. Each 100% increase in the number of arrests in the past year was associated with an 75.9% increase in the odds of booking for a traffic arrest. At the officer-level, each year of experience is associated with 2.3% lower odds of booking following a traffic arrest. A 1% point increase in the relative size of the neighborhood Hispanic or Native American populations are associated with 0.5% and 0.9% higher odds of booking for a traffic arrest, respectively. At the offense-level, the odds of booking for traffic charges during felony arrests were 7.7 times higher than for misdemeanor traffic arrests.

Discussion

Understanding how police officers utilize discretion at each decision point is vital to identifying potential bias throughout the criminal justice process. However, few policing studies examine potential inequalities in booking decisions (Camplain et al., 2020; Raphael & Rozo, 2019). Booked arrests have many negative impacts on individuals lives (Lageson et al., 2020; Raphael & Rozo, 2019). It entails being physically restrained for an uncertain amount of time, creates a criminal record, and intensifies involvement with the legal system, all without conviction. Our study builds on prior work of police decision-making and the limited research on booking to find that both legal and extralegal factors influence police decision to book arrests.

Our study of police booking decision has important implications for both theory and policy. Importantly, as found in other studies of officer decision-making, legal factors have a substantial impact on the decision to book arrests (Brown & Frank, 2006; Brown et al., 2009; Smith & Visher, 1981; Stolenberg et al., 2020). Our results find prior and felony arrests are the most consistent significant factors in officers' decision to book arrests. For almost all offenses, felony arrest was the strongest factor, while prior arrests in last year was consistently, siginificantly, and postively associated with booking. These results suggest officers primarily consider legal factors

when making booking decisions (Brown et al., 2009; National Research Council, 2004; Stolzenberg et al., 2020). These findings support theoretical development for police focal concerns, as blameworthiness (felony status) and community protection (prior arrest) guide officers' decisions (Ishoy & Dabney, 2018; Tillyer & Hartley, 2010). Community protection and blameworthiness constrain officers' discretion and necessitate police action that can increase booking odds. Felony arrests, given their severity, increase blameworthiness and may give officers no other choice but to book the arrest. Further, officers may perceive repeat offenders as having increased dangerousness that necessitate a more serious response, regardless of race, age, and gender.

Though legal factors carried a large impact, extralegal factors still exerted significance for booked arrest decisions, even after controlling for important legal and neighborhood factors. For all offenses, we find persons of color have significantly higher odds of booking versus cite and release or submitted case arrests than White suspects. Compared to White suspects, Native American suspects had higher odds for all offenses except criminal damage, Black suspects had higher odds for criminal damage, and Hispanic suspects had higher odds of booking for paraphernalia arrests. These results suggest that officers consider extralegal factors in their booking decisions.

Our findings of disparate treatment of persons of color in booked arrests lend credence to the presumption of the symbolic assailant and the potential impact of officers' perceptual shorthand leading to inequalities in the criminal justice system in line with the focal concerns framework. Given officers limited time and information during an incident, their shorthand based on stereotypes of blameworthiness, crime seriousness, and race may foster these disparities (Tillyer & Hartley, 2010). While much work emphasizes Black males as symbolic assailants (Bell, 2017; Jones-Brown, 2007), our consistent findings regarding Native American suspects suggest CPD may consider them a symbolic threat. These findings mirror results of prior studies that identify Native Americans experience greater arrest risk (Barnes et al., 2015), traffic stops (Arizona ACLU, 2008), booking for drugs and alcohol (Camplain et al., 2020), and criminal justice system discrimination (Ulmer & Bradley, 2019), especially in the Southwest (Nielsen & Silverman, 2009). A history of marginalization in the Southwest, geographic proximity to reservations, and negative stereotypes of the group as "violent" and "alcoholic," may shape officers' perceptual shorthand and induce bias in booking (Ulmer & Bradley, 2019). Notably, the one crime which we did find significantly higher odds of booking for Blacks was criminal damage, highlighting prior work finding Blacks experience greater likelihood of booking for property crimes involving suspicion (Fagan et al., 2012).

In addition to suspect race and ethnicity, we found that suspect age and gender were consistently associated with booking odds. For all crime types, older suspects had higher booking odds than younger suspects. Apart from cannabis arrests, this relationship increased at a decreasing rate over time. These findings parallel the sentencing literature (Steffensmeier et al., 1998) and policing literature (Stolzenberg & D'Alessio, 2008) finding a curvilinear relationship. Finally, female suspects consistently had lower booking odds than male suspects. These findings suggest officers show leniency to younger, much older, and female suspects potentially due to perceptions of these individuals being less blameworthy and a threat to the community.

While the odds of booking following an arrest varied across officers and block groups, few variables in our analyses influenced booking. At block-group level, percent Native American resulted in a small significant increase in booking odds for drug and traffic arrests, similar to percent Hispanic in models of paraphernalia and traffic arrest. While statistically significant, the small magnitudes pale in comparison to that of suspect-level race or ethnicity. Consequently, while the results may reflect drug and immigration enforcement or perceptions of Native American communities as more crime-prone and feel more formal control is necessary (Ulmer & Bradley, 2019), our findings suggest officers may be more concerned with suspect race instead of place in Chandler.

Our findings that odds of booking for some arrests increased with distance from GRIC further support the notion that, though individuals may be perceived as symbolic threats, areas have a minimal positive impact on booking odds in Chandler. Instead, the higher odds of booked arrest experienced by Native American suspects potentially reflects experiences of out-of-place policing across the city of Chandler. Specifically, because of negative stereotypes of Native Americans, police in Chandler may respond to Native American suspects as if they "belong" on the reservation and their presence is thus "out of place" throughout the city, leading to heightened scrutiny and suspicion regardless of where the suspect lives (Gaston, 2019; Gaston et al., 2020). In supplemental analyses (available by request), insignificant interactions between race/ethnicity and neighborhood demographic variables or distance from the GRIC suggest that these experiences are a feature throughout the city.

Racial disparities in booked arrests contribute to cumulative disadvantage in the criminal justice system for persons of color, especially Native Americans. The group already face lower SES, significant marginalization, and discrimination, particularly in the criminal justice system (Branes et al., 2015; Tighe, 2014; Ulmer & Bradley, 2019). Our findings suggest that criminal booking may further exacerbate this marginalization by aggravating negative features of criminal justice contact. Even if not convicted or charged, booking can have detrimental impacts on life outcomes. Booking creates and exacerbates "procedural hassles" associated with criminal justice contact, physically confining suspects for uncertain amounts of time, briefly cutting off access to their social networks, and disrupting their social lives (Kohler-Hausmann, 2013; Sugie & Turney, 2017). In addition, due to easily searched online records (Lageson et al., 2020), booked arrests create a public criminal record, absent conviction, that can worsen employment disadvantages (Pager, 2003; Uggen et al., 2014) and limit access to crime reducing institutions (Brayne, 2014), potentially increasing the likelihood of future arrests (Raphael & Rozo, 2019).

Whereas our sample includes only arrested suspects, this selection does not hamper our findings or the importance of booking. All arrests are not created alike and, as we argue, booked arrests carry far more negative impacts compared to arrests in which the suspect is released. Research documents how simply being stopped and questioned carries negative impacts (Wiley & Ebensen, 2016). This finding suggests a more formal process like booking, which involves short-term confinement without guilt, can have even more serious consequences beyond even arrest. Disparities during the arrest process, including booking, contribute to cumulative disadvantage in the criminal justice system (Kurlychek & Johnson, 2019).

The findings have several policy implications. First, to address overall disparities in booking, CPD and other law enforcement departments should clearly specify booking policies and procedures to officers and the public. Policies should clearly state when, how, and for what offenses officers should book versus cite and release suspects. Similar recommendations have been made for other departments (Bail & Release Work Group, 2016). While we are not advocating officers should not book arrestees for minor offenses, a clearer set of expectations reduces uncertainty and eases tension between police and the community (Mazerolle et al., 2013; Tyler, 2004). Second, CPD and similarly situated departments should strengthen partnerships with local Native American communities. These partnerships could link departments with community leaders to address issues that lead to disparate treatment and create specific training to handle interactions with reservation residents and heighten awareness of potential biases to members.

Our study has several limitations. First, our results may not generalize to other locations or other incidents outside of these five minor offenses. Chandler is a large, racially diverse suburb in the Southwest. These traits may influence officers' decision-making differently than in rural or urban areas. Also, we rely on police administrative data, which relies on officers accurately documenting the incident, including suspect race, age, or gender and reporting specific extralegal variables, while excluding police-citizen interactions that do not end in arrest. Moreover, these data omit important factors as suspect demeanor or noncompliance. While prior works find demeanor is an important factor in police interactions (Lundman, 1996; Engel et al., 2000), other works note it is inconclusive (National Research Council, 2004). Finally, our data prevents us from incorporating prior arrests before 2013. While we focus on recent arrests, which may have more salience to officers' decision-making than older offenses, we recognize this limitation.

Despite these limitations, we add to the police decision-making literature in several important ways. First, we analyze booked arrest decisions, which is an often-ignored decision in criminology. Second, we study multiple minor offenses and incorporate seasonal, time-related, and legal factors like prior arrests that earlier studies often ignore. Finally, we sample a less studied region (i.e., Southwestern U.S.) that allows an expanded racial category to examine less studied minority groups. These contributions of our work help to lay the groundwork for future studies of police decision-making, highlighting the need for detailed, longitudinal data that provides legal and extralegal suspect and neighborhood-level information. While this study finds disparities in booked arrests, future research should examine how these inequalities at the booking stage impact outcomes such as future offending, mental health, employment, and educational outcomes.

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Availability of Data and Materials Data available at Chandler Police Department Open Data Portal (https://data.chandlerpd.com/catalog/arrest-bookings/). Also, Available upon requests.

Code Availability Available upon request.

Declarations

Conflict of Interest/Competing Interests We report no conflicts of interest.

References

Akins, S., Lanfear, C., Cline, S., & Mosher, C. (2013). Patterns and correlates of adult American Indian substance use. *Journal of Drug Issues*, 43(4), 497–516. https://doi.org/10.1177/0022042613491100

Albonetti, C. A. (1991). An integration of theories to explain judicial discretion. *Social Problems*, 38(2), 247–266. https://doi.org/10.2307/800532

Allison, P. D. (2009). *Fixed Effects Regression Models*. SAGE Publications

Alvarez, A., & Bachman, R. D. (1996). American Indians and sentencing disparity: An Arizona test. *Journal of Criminal Justice*, 24(6), 549–561. https://doi.org/10.1016/S0047-2352(96)00039-6

American Civil Liberties Union of Arizona (2008). *Driving while black or brown: An analysis of racial profiling in Arizona*. ACLU of Arizona Retrieved December 14, 2020, from https://www.acluaz.org/sites/default/files/documents/DrivingWhileBlackorBrown.pdf

Andersen, T. S. (2015). Race, ethnicity, and structural variations in youth risk of arrest: Evidence from a national longitudinal sample. *Criminal Justice and Behavior*, 42(9), 900–916. https://doi.org/10.1177/0093854815570963

Andresen, M. A., & Malleson, N. (2015). Intra-week spatial-temporal patterns of crime. *Crime Science*, 4(1), 1–11. https://doi.org/10.1186/s40163-015-0024-7

Ariel, B. (2016). Police body cameras in large police departments. *Journal of Criminal Law and Criminology*, 106, 729–768

Bail and Release Work Group (2016). *Final consensus report on optimal pretrial justice*. County of Santa Clara. Retrieved June 5, 2021, from https://www.sccgov.org/sites/ceo/Documents/finalconsensus-report-on-optimal-pretrial-justice.pdf

Barnes, J. C., Jorgensen, C., Beaver, K. M., Boutwell, B. B., & Wright, J. P. (2015). Arrest prevalence in a national sample of adults: The role of sex and race/ethnicity. *American Journal of Criminal Justice*, 40(3), 457–465. https://doi.org/10.1007/s12103-014-9273-3

Beck, B. (2019). Broken windows in the cul-de-sac? Race/ethnicity and quality-of-life policing in the changing suburbs. *Crime & Delinquency*, 65(2), 270–292. https://doi.org/10.1177/0011128717739568

Bell, J. (2017). Dead canaries in the coal mines: The symbolic assailant revisited. *Georgia. State University Law Review*, 34(3), 513–579

Bernard, T. J., & Engel, R. S. (2001). Conceptualizing criminal justice theory. *Justice Quarterly*, 18(1), 1–30. https://doi.org/10.1080/07418820100094801

Bolger, P. C., & Lytle, D. (2018). A meta-analysis of suspect demographic characteristics and American police officer search decisions. *Criminology, Criminal Justice, Law, & Society*, 19, 1–23

Brayne, S. (2014). Surveillance and system avoidance: Criminal justice contact and institutional attachment. *American Sociological Review*, 79(3), 367–391. https://doi.org/10.1177/0003122414530398

Brown, R., & Frank, J. (2006). Race and officer decision making: Examining differences in arrest outcomes between black and white officers. *Justice Quarterly*, 23(1), 96–126. https://doi.org/10.1080/07418820600552527

Brown, R. A., Novak, K. J., & Frank, J. (2009). Identifying variation in police officer behavior between juveniles and adults. *Journal of Criminal Justice*, 37(2), 200–208. https://doi.org/10.1016/j.jcrimjus.2009.02.004

Cameron, A. C., & Miller, D. L. (2015). A practitioner's guide to cluster-robust inference. *Journal of Human Resources*, 50(2), 317–372

Camplain, R., Camplain, C., Trotter, I. I., Pro, R. T., Sabo, G., Eaves, S. … Baldwin, J. A. (2020). Racial/ethnic differences in drug-and alcohol-related arrest outcomes in a Southwest County from 2009 to 2018. *American Journal of Public Health*, 110(S1), S85–S92. https://doi.org/10.2105/AJPH.2019.305409

Chandler Police Department. (n.d). About the department." Retrieved December 16 (2020). from https://www.chandlerpd.com/about/
Chandler Police Department (2018). Review and response of the final report of the president's task force on 21st century policing. Retrieved December 18, 2020, from https://www.chandlerpd.com/21st-century-policing-review-report/21st-century-policing-final/
Chandler Police Department (2019). Chandler police department general orders. Retrieved June 7, 2021, from https://www.chandlerpd.com/wp-content/uploads/2019/07/All-GO-Public-RD-06-19-.pdf
Chandler Police Department (2021). Arrest bookings. Retrieved December 16, 2020, from https://data.chandlerpd.com/catalog/arrest-bookings/
Crow, M. S., & Adrion, B. (2011). Focal concerns and police use of force: Examining the factors associated with taser use. *Police Quarterly*, 14(4), 366–387. https://doi.org/10.1177/1098611111423740
D'Alessio, S. J., & Stolzenberg, L. (2003). Race and the probability of arrest. *Social Forces*, 81(4), 1381–1397. https://doi.org/10.1353/sof.2003.0051
Engel, R. S., Sobol, J. J., & Worden, R. E. (2000). Further exploration of the demeanor hypothesis: The interaction effects of suspects' characteristics and demeanor on police behavior. *Justice Quarterly*, 17(2), 235–258. https://doi.org/10.1080/07418820000096311
Fagan, J., & Davis, G. (2000). Street stops and broken windows: Terry, race, and disorder in New York City. *Fordham Urban Law Journal*, 28(2), 457–504. https://doi.org/10.2139/ssrn.257813
Fagan, J., Davies, G., & Carlis, A. (2012). Race and selective enforcement in public housing. *Journal of Empirical Legal Studies*, 9(4), 697–728. https://doi.org/10.1111/j.1740-1461.2012.01272.x
Federal Communications Commission (2021). *Census block conversions API*. FCC. Retrieved December 1, 2020, from https://www.fcc.gov/census-block-conversions-api
Franklin, T. W. (2013). Sentencing Native Americans in US federal courts: An examination of disparity. *Justice Quarterly*, 30(2), 310–339. https://doi.org/10.1080/07418825.2011.605072
Gaston, S. (2019). Enforcing race: A neighborhood-level explanation of black–white differences in drug arrests. *Crime & Delinquency*, 65(4), 499–526. https://doi.org/10.1177/0011128718798566
Gaston, S., Brunson, R. K., & Grossman, L. S. (2020). Are minorities subjected to, or insulated from, racialized policing in majority–minority community contexts? *The British Journal of Criminology*, 60(6), 1416–1437. https://doi.org/10.1093/bjc/azaa038
Gaston, S., Teti, M. J., & Sanchez, M. (2021). Does racial congruence between police agencies and communities reduce racialized police killings of civilians? *Criminology & Public Policy*. https://doi.org/10.1111/1745-9133.12567
Gila River Indian Community. (n.d.). About. Retrieved December 20 (2020). from http://www.gilariver.org/index.php/about
Gu, A., & Hong, I., Y (2019). Vcemway: A one-stop solution for robust inference with multiway clustering. *The Stata Journal*, 19(4), 900–912. https://doi.org/10.1177/1536867X19893637
Hannon, L., Neal, M., & Gustafson, A. R. (2020). Out-of-place and in-place policing: An examination of traffic stops in racially segregated Philadelphia. *Crime & Delinquency*. https://doi.org/10.1177/0011128720926122
Higgins, G. E., Vito, G. F., & Grossi, E. L. (2012). The impact of race on the police decision to search during a traffic stop: A focal concern theory perspective. *Journal of Contemporary Criminal Justice*, 28(2), 166–183. https://doi.org/10.1177/1043986211425725
Hipp, J. R. (2007). Block, tract, and levels of aggregation: Neighborhood structure and crime and disorder as a case in point. *American Sociological Review*, 72(5), 659–680. https://doi.org/10.1177/000312240707200501
Hirschi, T., & Gottfredson, M. (1983). Age and the explanation of crime. *American Journal of Sociology*, 89(3), 552–584. https://doi.org/10.1086/227905
Ingram, J. R. (2007). The effect of neighborhood characteristics on traffic citation practices of the police. *Police Quarterly*, 10(4), 371–393. https://doi.org/10.1177/1098611107306995
Ishoy, G. A., & Dabney, D. A. (2018). Policing and the focal concerns framework: Exploring how its core components apply to the discretionary enforcement decisions of police officers. *Deviant Behavior*, 39(7), 878–895. https://doi.org/10.1080/01639625.2017.1335537
Jones-Brown, D. (2007). Forever the symbolic assailant: The more things change, the more they remain the same. *Criminology & Public Policy*, 6, 103–122. https://doi.org/10.1111/j.1745-9133.2007.00424.x
Jorgensen, C. (2018). Badges and bongs: Police officers' attitudes toward drugs. *SAGE Open*, 8(4), https://doi.org/10.1177/2158244018805357
Kirk, D. S., & Sampson, R. J. (2013). Juvenile arrest and collateral educational damage in the transition to adulthood. *Sociology of Education*, 86(1), 36–62. https://doi.org/10.1177/0038040712448862

Klahm, C. F., & Tillyer, R. (2015). Rethinking the measurement of officer experience and its role in traffic stop searches. *Police Quarterly*, 18(4), 343–367. https://doi.org/10.1177/1098611115585315
Klinger, D. A. (1997). Negotiating order in patrol work: An ecological theory of police response to deviance. *Criminology*, 35(2), 277–306. https://doi.org/10.1111/j.1745-9125.1997.tb00877.x
Kochel, T. R., Wilson, D. B., & Mastrofski, S. D. (2011). Effect of suspect race on officers' arrest decisions. *Criminology*, 49(2), 473–512. https://doi.org/10.1111/j.1745-9125.2011.00230.x
Kohler-Hausmann, I. (2013). Misdemeanor justice: Control without conviction. *American Journal of Sociology*, 119(2), 351–393. https://doi.org/10.1086/674743
Kraska, P. B., & Brent, J. J. (2011). *Theorizing criminal justice: Eight essential orientations* (2nd ed.). Long Grove, IL: Waveland
Kurlychek, M. C., Brame, R., & Bushway, S. D. (2006). Scarlet letters and recidivism: Does an old criminal record predict future offending? *Criminology & Public Policy*, 5(3), 483–504. https://doi.org/10.1111/j.1745-9133.2006.00397.x
Kurlychek, M. C., & Johnson, B. D. (2019). Cumulative disadvantage in the American criminal justice system. *Annual Review of Criminology*, 2, 291–319. https://doi.org/10.1146/annurev-criminol-011518-024815
Lageson, S. E. (2016). Found out and opting out: The consequences of online criminal records for families. *The ANNALS of the American Academy of Political and Social Science*, 665(1), 127–141. https://doi.org/10.1177/0002716215625053
Lageson, S. E., Webster, E., & Sandoval, J. R. (2020). *Digitizing and disclosing personal data: The proliferation of state criminal records on the internet*. Forthcoming: Law and Social Inquiry
Lantz, B., & Wenger, M. R. (2020). The co-offender as counterfactual: A quasi-experimental within-partnership approach to the examination of the relationship between race and arrest. *Journal of Experimental Criminology*, 16, 183–206. https://doi.org/10.1007/s11292-019-09362-5
Lee, E. K. (2018). Monetizing shame: Mugshots, privacy, and the right to access. *Rutgers University Law Review*, 70, 557–645
Lerman, A. E., & Weaver, V. M. (2014). *Arresting Citizenship: The Democratic Consequences of American Crime Control*. University of Chicago Press
Levchak, P. J. (2017). Do precinct characteristics influence stop-and-frisk in New York City? A multi-level analysis of post-stop outcomes. *Justice Quarterly*, 34(3), 377–406. https://doi.org/10.1080/07418825.2016.1162320
Liederbach, J. (2007). Controlling suburban and small-town hoods: An examination of police encounters with juveniles. *Youth Violence and Juvenile Justice*, 5(2), 107–124. https://doi.org/10.1177/1541204006295151
Lum, C. (2011). The influence of places on police decision pathways: From call for service to arrest. *Justice Quarterly*, 28(4), 631–665. https://doi.org/10.1080/07418825.2010.526130
Lundman, R. J. (1996). Demeanor and arrest: Additional evidence from previously unpublished data. *Journal of Research in Crime and Delinquency*, 33(3), 306–323. https://doi.org/10.1177/0022427896033003002
Lundman, R. J. (2009). Officer gender and traffic ticket decisions: Police blue or women too? *Journal of Criminal Justice*, 37(4), 342–352. https://doi.org/10.1016/j.jcrimjus.2009.06.002
Lundman, R. J., & Kaufman, R. L. (2003). Driving while black: Effects of race, ethnicity, and gender on citizen self- reports of traffic stops and police actions. *Criminology*, 41(1), 195–220. https://doi.org/10.1111/j.1745-9125.2003.tb00986.x
Lurigio, A. J. (2017). Jails in America. In O. H. Griffin III, & V. H. Woodward (Eds.), *Routledge handbook of corrections in the United States* (pp. 104–112). Routledge
Lynch, M. (2019). Focally concerned about focal concerns: A conceptual and methodological critique of sentencing disparities research. *Justice Quarterly*, 36(7), 1148–1175. https://doi.org/10.1080/07418825.2019.1686163
Lytle, D. J. (2014). The effects of suspect characteristics on arrest: A meta-analysis. *Journal of Criminal Justice*, 42(6), 589–597. https://doi.org/10.1016/j.jcrimjus.2014.10.001
Mastrofski, S. D., Worden, R. E., & Snipes, J. B. (1995). Law enforcement in a time of community policing. *Criminology*, 33(4), 539–563. https://doi.org/10.1111/j.1745-9125.1995.tb01189.x
Mazerolle, L., Bennett, S., Davis, J., Sargeant, E., & Manning, M. (2013). Procedural justice and police legitimacy: A systematic review of the research evidence. *Journal of Experimental Criminology*, 9(3), 245–274. https://doi.org/10.1007/s11292-013-9175-2
McDowall, D., Loftin, C., & Pate, M. (2012). Seasonal cycles in crime, and their variability. *Journal of Quantitative Criminology*, 28(3), 389–410. https://doi.org/1007/s10940-011-9145-7

Menefee, M. R. (2018). The role of bail and pretrial detention in the reproduction of racial inequalities. *Sociology Compass*, 12(5), e12576. https://doi.org/10.1111/soc4.12576
Mitchell, O., & Caudy, M. S. (2015). Examining racial disparities in drug arrests. *Justice Quarterly*, 32(2), 288–313. https://doi.org/10.1080/07418825.2012.741721
National Research Council. (2004). *Fairness and effectiveness in policing: The evidence*. National Academies Press
Nielsen, M. O., & Silverman, R. A. (Eds.). (2009). *Criminal justice in Native America*. University of Arizona Press
Novak, K. J., Brown, R. A., & Frank, J. (2011). Women on patrol: An analysis of differences in officer arrest behavior. *Policing: An International Journal of Police Strategies & Management*, 34(4), 566–587. https://doi.org/10.1108/13639511111180216
Novak, K. J., & Chamlin, M. B. (2012). Racial threat, suspicion, and police behavior: The impact of race and place in traffic enforcement. *Crime & Delinquency*, 58(2), 275–300. https://doi.org/10.1177/0011128708322943
O'Connor, M. (2019, May 15). *Caught with three grams of weed, a Chandler father becomes a statistic*. New Phoenix Times. Retrieved December 21, 2020, from https://www.phoenixnewtimes.com/marijuana/caught-with-3-grams-weed-a-chandler-father-becomes-a-statistic-11283270
O'Neal, E. N., & Spohn, C. (2017). When the perpetrator is a partner: Arrest and charging decisions in intimate partner sexual assault cases—A focal concerns analysis. *Violence Against Women*, 23(6), 707–729. https://doi.org/10.1177/1077801216650289
Pager, D. (2003). The mark of a criminal record. *American Journal of Sociology*, 108(5), 937–975. https://doi.org/10.1086/374403
Pager, D., Western, B., & Sugie, N. (2009). Sequencing disadvantage: Barriers to employment facing young black and white men with criminal records. *The ANNALS of the American Academy of Political and Social Science*, 623(1), 195–213. https://doi.org/10.1177/0002716208330793
Perry, B. (2006). Nobody trusts them! Under-and over-policing Native American communities. *Critical Criminology*, 14(4), 411–444. https://doi.org/10.1007/s10612-006-9007-z
Perry, B. (2009). Impacts of disparate policing in Indian country. *Policing & Society*, 19(3), 263–281. https://doi.org/10.1080/10439460928713348
Petrocelli, M., Piquero, A. R., & Smith, M. R. (2003). Conflict theory and racial profiling: An empirical analysis of police traffic stop data. *Journal of Criminal Justice*, 31(1), 1–11. https://doi.org/10.1016/S0047-2352(02)00195-2
Petrocelli, M., Oberweis, T., Smith, M. R., & Petrocelli, J. (2014). Assessing police attitudes toward drugs and drug enforcement. *American Journal of Criminal Justice*, 39(1), 22–40. https://doi.org/10.1007/s12103-013-9200-z
Pollock, W., Oliver, W., & Menard, S. (2012). Measuring the problem: A national examination of disproportionate police contact in the United States. *Criminal Justice Review*, 37(2), 153–173. https://doi.org/10.1177/0734016811436335
Pope, C. E., & Snyder, H. N. (2003). *Race as a factor in juvenile arrests*. Washington, DC: US Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention
Raphael, S., & Rozo, S. V. (2019). Racial disparities in the acquisition of juvenile arrest records. *Journal of Labor Economics*, 37(S1), S125–S159. https://doi.org/10.1086/701068
Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods*. Thousand Oaks, CA: Sage
Riksheim, E. C., & Chermak, S. M. (1993). Causes of police behavior revisited. *Journal of Criminal Justice*, 21(4), 353–382. https://doi.org/10.1016/0047-2352(93)90019-J
Rojek, J., Rosenfield, R., & Decker, S. (2012). Policing race: The racial stratification of searches in police traffic stops. *Criminology*, 50(4), 993–1024. https://doi.org/10.1111/j.1745-9125.2012.00285.x
Rosenfeld, R., Rojek, J., & Decker, S. (2012). Age matters: Race differences in police searches of young and older male drivers. *Journal of Research in Crime and Delinquency*, 49(1), 31–55. https://doi.org/10.1177/0022427810397951
Sealock, M. D., & Simpson, S. S. (1998). Unraveling bias in arrest decisions: The role of juvenile offender type-scripts. *Justice Quarterly*, 15(3), 427–457. https://doi.org/10.1080/07418829800093831
Skolnick, J. H. (1966). *Justice without trial: Law enforcement in democratic society*. John Wiley
Smith, D. A. (1986). The neighborhood context of police behavior. *Crime and Justice*, 8, 313–341. https://doi.org/10.1086/449126
Smith, D. A., & Visher, C. A. (1981). Street-level justice: Situational determinants of police arrest decisions. *Social Problems*, 29(2), 167–177. https://doi.org/10.2307/800422

Smith, M. R., & Petrocelli, M. (2001). Racial profiling? A multivariate analysis of police traffic stop data. *Police Quarterly*, 4(1), 4–27. https://doi.org/10.1177/1098611101004001001

Smith, M. R., Makarios, M., & Alpert, G. P. (2006). Differential suspicion: Theory specification and gender effects in the traffic stop context. *Justice Quarterly*, 23(02), 271–295. https://doi.org/10.1080/074188206068883

Smith, M. R., & Alpert, G. P. (2007). Explaining police bias: A theory of social conditioning and illusory correlation. *Criminal Justice and Behavior*, 34(10), 1262–1283. https://doi.org/10.1177/0093854807304484

Steffensmeier, D. J. (1980). Assessing the impact of the women's movement on sex-based differences in the handling of adult criminal defendants. *Crime & Delinquency*, 26(3), 344–357. https://doi.org/10.1177/001112878002600305

Steffensmeier, D., & Allan, E. (1996). Gender and crime: Toward a gendered theory of female offending. *Annual Review of Sociology*, 22(1), 459–487. https://doi.org/10.1146/annurev.soc.22.1.459

Steffensmeier, D., Ulmer, J., & Kramer, J. (1998). The interaction of race, gender, and age in criminal sentencing: The punishment cost of being young, black, and male. *Criminology*, 36(4), 763–798. https://doi.org/10.1111/j.1745-9125.1998.tb01265.x

Stolzenberg, L., & D'Alessio, S. J. (2008). Co-offending and the age-crime curve. *Journal of Research in Crime and Delinquency*, 45(1), 65–86. https://doi.org/10.1177/0022427807309441

Stolzenberg, L., D'Alessio, S. J., & Flexon, J. L. (2020). The usual suspects: Prior criminal record and the probability of arrest. *Police Quarterly*, 24(1), 31–54. https://doi.org/10.1177/1098611120937304

Sugie, N. F., & Turney, K. (2017). Beyond incarceration: Criminal justice contact and mental health. *American Sociological Review*, 82(4), 719–743. https://doi.org/10.1177/0003122417713188

Sun, I. Y., & Payne, B. K. (2004). Racial differences in resolving conflicts: A comparison between black and white police officers. *Crime and Delinquency*, 50(4), 516–541. https://doi.org/10.1177/0011128703259298

Sun, I. Y., Payne, B. K., & Wu, Y. (2008). The impact of situational factors, officer characteristics, and neighborhood context on police behavior: A multilevel analysis. *Journal of Criminal Justice*, 36(1), 22–32. https://doi.org/10.1016/j.jcrimjus.2007.12.004

Sutton, J. R. (2013). Structural bias in the sentencing of felony defendants. *Social Science Research*, 42(5), 1207–1221. https://doi.org/10.1016/j.ssresearch.2013.04.003

Tapia, M. (2010). Untangling race and class effects on juvenile arrests. *Journal of Criminal Justice*, 38(3), 255–265. https://doi.org/10.1016/j.jcrimjus.2010.03.002

Tapia, M. (2011). Gang membership and race as risk factors for juvenile arrest. *Journal of Research in Crime and Delinquency*, 48(3), 364–395. https://doi.org/10.1177/0022427810393013

Tapia, M. (2015). US Latino arrest: An analysis of risk by nativity and origin. *Hispanic Journal of Behavioral Sciences*, 37(1), 37–58. https://doi.org/10.1177/0739986314562928

Thacher, D. (2008). The rise of criminal background screening in rental housing. *Law & Social Inquiry*, 33(1), 5–30. https://doi.org/10.1111/j.1747-4469.2008.00092.x

Tighe, S. (2014). Of course we are crazy": Discrimination of Native American Indians through criminal justice. *Justice Policy Journal*, 11(1), 1–38

Tillyer, R. (2014). Opening the black box of officer decision-making: An examination of race, criminal history, and discretionary searches. *Justice Quarterly*, 31(6), 961–985. https://doi.org/10.1080/07418825.2012.7100646

Tillyer, R., & Shephard Engel, R. (2013). The impact of drivers' race, gender, and age during traffic stops: Assessing interaction terms and the social conditioning model. *Crime & Delinquency*, 59(3), 369–395. https://doi.org/10.1177/0011128710389583

Tillyer, R., & Hartley, R. D. (2010). Driving racial profiling research forward: Learning lessons from sentencing research. *Journal of Criminal Justice*, 38(4), 657–665. https://doi.org/10.1016/j.jcrimjus.2010.04.039

Tillyer, R., Smith, M., & Lloyd, C. D. (2019). Another piece of the puzzle: The importance of officer characteristics and group processes in understanding post-stop outcomes. *Journal of Research in Crime and Delinquency*, 56(5), 736–779. https://doi.org/10.1177/0022427819843962

Turanovic, J. J., & Pratt, T. T. (2017). Consequences of violent victimization for Native American youth in early adulthood. *Journal of Youth and Adolescence*, 46(6), 1333–1350. https://doi.org/10.1007/s10964-016-0587-y

Tyler, T. R. (2004). Enhancing police legitimacy. *The Annals of the American Academy of Political and Social Science*, 593(1), 84–99. https://doi.org/10.1177/0002716203262627

Uggen, C., Vuolo, M., Lageson, S., Ruhland, E., & Whitman, H. K. (2014). The edge of stigma: An experimental audit of the effects of low-level criminal records on employment. *Criminology*, 52(4), 627–654. https://doi.org/10.1111/1745-9125.12051

Ulmer, J. T., & Bradley, M. S. (2019). Criminal justice in Indian country: A theoretical and empirical agenda. *Annual Review of Criminology*, 2, 337–357. https://doi.org/10.1146/annurev-criminol-011518-024805

United States Census Bureau (2019a). The desert southwest. Retrieved December 14, 2020, from https://www.census.gov/content/dam/Census/library/visualizations/2019/demo/desert-southwest.pdf

United States Census Bureau (2019b). QuickFacts: Chandler city, Arizona. Retrieved December 14, 2020, from https://www.census.gov/quickfacts/chandlercityarizona

Visher, C. A. (1983). Gender, police arrest decisions, and notions of chivalry. *Criminology*, 21(1), 5–28. https://doi.org/10.1111/j.1745-9125.1983.tb00248.x

Vito, A. G., Grossi, E. L., & Higgins, G. E. (2017). The issue of racial profiling in traffic stop citations. *Journal of Contemporary Criminal Justice*, 33(4), 431–450. https://doi.org/10.1177/1043986217724537

Warren, P., Tomaskovic- Devey, D., Smith, W., Zingraff, M., & Mason, M. (2006). Driving while black: Bias processes and racial disparity in police stops. *Criminology*, 44(3), 709–738. https://doi.org/10.1111/j.1745-9125.2006.00061.x

Weber, S., & Péclat, M. (2017). A simple command to calculate travel distance and travel time. *The Stata Journal*, 17(4), 962–971. https://doi.org/10.1177/1536867X1801700411

Weitzer, R. (2017). Theorizing racial discord over policing before and after Ferguson. *Justice Quarterly*, 34(7), 1129–1153. https://doi.org/10.1080/07418825.2017.1362461

Wiley, S. A., & Esbensen, F. A. (2016). The effect of police contact: Does official intervention result in deviance amplification? *Crime & Delinquency*, 62(3), 283–307. https://doi.org/10.1177/0011128713492496

Wooldredge, J., Frank, J., Goulette, N., & Travis, I. I. I., L (2015). Is the impact of cumulative disadvantage on sentencing greater for black defendants? *Criminology & Public Policy*, 14(2), 187–223. https://doi.org/10.1111/1745-9133.12124

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