EMPLOYER AVERSION TO CRIMINAL RECORDS:
AN EXPERIMENTAL STUDY OF MECHANISMS

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ABSTRACT: *The mark of a criminal record is clearly harmful for employment. However, the reasons for employer aversion are not well established, even though legal, policy, and scholarly responses rely upon particular explanations. We propose that explanations for aversion often fit under a repetition risk framework in which employers use records as neutral sources of information about prior illegal activity and make decisions to minimize risk of similar future conduct. A second explanation is stigma, where the records themselves, independent of conduct, trigger stereotypes, status loss, and discrimination. Using an experimental employer survey, we find that employers evaluate applicants with records more negatively than applicants with similar behavior signaled through non-criminal justice sources (e.g., social media); this effect remains after accounting for predictions about future conduct. It is also most apparent among higher-status jobs rather than manual labor, and it persists after adjusting for firm-level and legal constraints. We conclude that aversion reflects not only repetition risk but also stigma of criminal justice contact. Insofar as criminal record screening is not exclusively a form of rational risk management, this finding may alter assessments of the benefits of screening relative to the costs of perpetuating inequality produced by the criminal justice system.*

The mark of a criminal record has harmful consequences for hiring, and these penalties follow individuals long after formal criminal justice sanctions end (e.g., Holzer, Raphael, & Stoll, 2007; Pager, 2003; Pager, Western, & Bonikowski, 2009; Uggen, Vuolo, Lageson, Ruhland, & Whitham, 2014; Western, 2002). These well-known implications—particularly for less-skilled, low-wage jobs—are profoundly important, given the prevalence of records in the United States and their disproportionate concentration among racial/ethnic minorities. As of 2014, states held over 100 million arrest and conviction records (Bureau of Justice Statistics, 2015), corresponding to approximately 25% of the U.S. adult population (Jacobs, 2015a), and it is estimated that 13% of adult males (and 33% of African American males) have felony conviction records (Shannon et al., 2017). Changes in information technology also have made it easier for employers to conduct background checks. A recent survey found that 73% of human resource professionals in the Society for Human Resource Management conduct background checks for new hires (Society for Human Resource Management, 2018).

Employer aversion to records—combined with the concentration of criminal justice contact among low-income, less-skilled, racial/ethnic minorities—exacerbates racial/ethnic and class disparities in unemployment and related domains (e.g., housing, addiction, and reoffending) (Wakefield & Uggen, 2010). In response, social justice advocates and legislators have promoted policies such as "Ban the Box," which restricts record screening

during initial hiring stages, as well as stronger "Fair Chance" versions that specify how records may be used in final decisions. Currently, 35 states (and over 150 localities) have enacted some form of Ban the Box (Avery, 2019). Concern about the disparate impact of criminal record screening on African American and Hispanic men also prompted the U.S. Equal Employment Opportunity Commission (EEOC) to issue guidance that federal antidiscrimination law limits consideration of records in ways similar to Fair Chance policies (2012).

These legal and policy responses are premised on the notion that unregulated criminal record screening can expose people with records to unfair treatment and racial discrimination. Emerging scholarship, however, also indicates that restricting such screening might actually exacerbate overall inequality. This research finds evidence of statistical discrimination, or the use of easy-to-discern characteristics such as race/ethnicity, age, and gender to make assumptions about criminal behavior in the absence of record information (e.g., Agan & Starr, 2016; Doleac & Hansen, 2016; Vuolo, Lageson, & Uggen, 2017). Some critiques of screening restrictions, such as Ban the Box, rely on this possibility that employers will engage in illegal statistical discrimination that injures racial/ethnic minorities without records, if employers cannot access relevant record information (Agan & Starr, 2016; Doleac, 2016; Doleac & Hansen, 2016; Jacobs, 2015b; Strahilevitz, 2008).

A central question in these emergent legal, policy, and scholarly debates is why decision makers are averse to records and whether these

reasons are relevant to evaluation. Many common explanations focus on the risk of future reoffending, and we put forward the term *repetition risk* to describe these explanations. According to this logic, instrumentally rational decision makers seek information about the risk that applicants will, after hiring, engage in harmful conduct, including criminal conduct such as violence, drug use, or theft; they use criminal records as a source of relevant information about applicants' past wrongful conduct on the theory that past conduct is predictive of similar future conduct. That is, they are averse to the risk that the conduct indicated by the record will be repeated. A second prominent explanation treats aversion as manifesting and reproducing stigma that comes with being marked by the criminal justice system as morally suspect and socially other. We draw on Link and Phelan's articulation of stigma as labeling, stereotyping, separation, status loss, and discrimination (2001) to describe how records mark individuals deserving of exclusion; the criminal record itself, independent of behavior, influences aversion.

In this article, we examine whether aversion to records can be explained by repetition risk. We do so by building on the insight that, in a repetition risk framework, credible signals of past criminal conduct should have similar negative consequences for hiring, regardless of whether the signal comes from a criminal record or another source. The findings, which are based on an experimental employer survey of hypothetical job applicants with recent drug use, contribute to scholarly and policy debates in three

4

ways. First, consistent with stigma explanations, we show that employers evaluate applicants with records (and especially those with convictions) more negatively than applicants with similar illicit behavior signaled through non-criminal justice sources (e.g., social media). Moreover, aversion persists even after directly adjusting for employer predictions about risk of future behavior. Second, we find that aversion varies by job type and is most evident among higher-status positions involving customer contact and office work, relative to those involving manual labor. Third, we find that aversion cannot easily be explained by other potential considerations, such as legal and firm-level constraints on hiring applicants with records.

We conclude that aversion to criminal records is at least partly influenced by stigma associated with criminal justice contact, independent of prior prohibited behavior. The role of stigma in aversion raises questions of equity not only in employment but also in other domains that evaluate records (e.g., landlords and school admissions; Desmond, 2016; Lageson, 2016; Thatcher, 2008). These findings reinforce our understanding of the criminal justice system as a stratifying institution that marks individuals in ways that underwrite their future subordination.

REPETITION RISK AND STIGMA

Criminal record aversion can result from concerns about a person's behavior and character, legal liabilities, occupational and licensing restrictions, and stigma related to criminal justice contact. Although

scholarship does not typically distinguish among these explanations, we suggest that prominent rationales invoke *repetition risk*: decision makers' concern that a person's prior illicit behavior predicts similar future behavior. We contrast this explanation with reasons for aversion grounded in *stigma*. Our use of stigma is conceptually narrower than some scholarship on criminal records, in that we refer to aversion associated with the official criminal justice label only (apart from the offense that led to the record).

REPETITION RISK

We propose the term *repetition risk* to describe explanations for employer aversion that view criminal records as informative and relevant indicators of an applicant's future risk of prohibited behavior. We treat repetition risk as one consideration within a broader framework of risk management that views decision makers as rational actors who mitigate risk by using information about prior applicant behavior to make predictions about the likelihood of similar conduct occurring on the job (Taarup-Esbensen, 2018). Hiring decision makers manage risk and liability by making these predictions while navigating constraints on their time and resources, legal mandates, and institutional policies (Dobbin, 2009; Edelman, 2016; Lageson, Vuolo, & Uggen, 2015). Within this context, criminal records are viewed as quick, useful, and credible sources of information about past illicit behavior that bears on the risk of future behavior that decision makers prefer to avoid.

Legal and scholarly analyses often highlight the notion that employers use criminal records to ascertain future risk of criminal conduct, and that doing so is reasonable and appropriate. Repetition risk is central to legal doctrines that employers should consider the amount of time that has passed since the applicant's offense, because the risk of repetition is expected to decline over time. Similar concerns underlie scholarly "redemption" studies, which identify the period of time after which an individual's criminal record no longer indicates an elevated risk of reoffending (Blumstein & Nakamura, 2009; Bushway, Nieuwbeerta, & Blokland, 2011; Kurlychek, Brame, & Bushway, 2006). Likewise, research on statistical race discrimination as a substitute for criminal record screening generally explains the phenomenon in terms of employers' search for alternative sources of information about risks of future prohibited behavior (Agan, 2017).

From a repetition risk standpoint, prior prohibited conduct could be signaled from a variety of credible sources, including but not limited to the criminal justice system; the source is important only insofar as it conveys accurate information about prior behavior. For instance, the EEOC guidelines distinguish between how employers should interpret behavior signaled via arrests versus convictions, giving reasons grounded in the accuracy of the information: convictions conclusively establish that the charged conduct occurred, while arrests import more uncertainty. In conjunction with corroborating information, including from outside the criminal justice system,

however, an arrest can become functionally equivalent to a bare conviction (U.S. EEOC, 2012). In other words, prior prohibited conduct is effectively signaled to the employer if the information source is considered credible.

Alongside the passage of time, the other major legal criteria used to justify criminal record screenings focus on the strength of the "nexus," or similarity, between the prior offense and the requirements of the job in question (Elmore, 2015). For example, a theft offense is more concerning for a truck driver with unmonitored access to valuable cargo than it is for a telemarketer (U.S. EEOC, 2012), and an embezzlement offense is more relevant to a financial adviser than a bus driver (Jacobs, 2015a). The criminal record is viewed as an indicator of future risk, with the presumption that "past behavior is usually a good predictor of future behavior" (Jacobs, 2015a: 304). This nexus between the prior offense and future job duties is relevant only if employer concern focuses on repetition of the specific prior offense, as opposed to some unrelated future offense or misconduct. Of course, employers might characterize repetition risk at different levels of specificity (Bushway, 1998); for example, past use of one illegal drug might indicate future illegal drug use generally, future illegal conduct, or future "irresponsible" conduct broadly. Although an employer might consider all of these specifications relevant to hiring, this framework especially anticipates and legitimates employer considerations focused more narrowly on the relevance of the specific prior behavior to the current job. Accordingly,

repetition risk explanations predict a closer connection between more similar attributes of past and future conduct.

Negligent Hiring

A variation on the repetition risk framework posits that employers are averse to future illicit conduct for the specific reason that it could trigger negligent hiring lawsuits against them (Agan, 2017; Bushway, 2004; Finlay, 2009; Lageson et al., 2015; Stoll & Bushway, 2008). Such lawsuits attempt to hold employers responsible for injuries their employees inflict on certain third parties—i.e., customers and clients, but not coworkers[1] (a point to which we return in the discussion)—based on the theory that the employer should have anticipated such potential harms and prevented them by not hiring the employee. The criminal record would alert them to the risk—via repetition—of future harmful conduct. The negligent hiring variant implies that employers are specially concerned about litigation costs of employee conduct, in addition to direct costs from lost productivity, damage to employer property, and so on. Although some evidence indicates that employers are not concerned about liability (particularly those without large human resources departments) (Pager, 2007), other research finds that those hiring for positions with customer contact are more likely to check records (Holzer et al., 2007; Vuolo et al., 2017).

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[1] Workers compensation laws generally bar employees from suing their employers for negligence. This basic principle of employment law, likely familiar to any human resources professional, applies to suits for negligent hiring, including those arising from workplace sexual or physical assault by co-workers (Larson & Robinson, 2017: 9-103, § 103.07; *Peterson v. Arlington Hospitality Staffing, Inc*.; *Meintsma v. Loram Maint. of Way, Inc.*).

For present purposes, the critical question is whether criminal justice versus non-criminal justice signals differ in how much they expose employers to litigation risk. If they do, concern about negligent hiring lawsuits might present an exception to the prediction that the signal's source should not matter to employers as long as it is credible. In principle, however, the source should not matter legally: negligence is a question of whether the employer knew or should have known about the risk but failed to take appropriate precautions. For this reason, employers have been held liable for negligent hiring based on their notice of worrisome past behavior from non-criminal justice sources, such as past experience with the employee, statements by the employee, and so on (Restatement (Third) Torts, 2010; *Doe v. Sisters of Holy Cross*). Despite this point, some employers might place extra weight on signals from criminal records due to the frequent association between records and negligent hiring concerns, or due to the possibility that judges or juries might give greater weight to employer notice from records than from other sources, even if those signals are equally predictive.

Legal and Firm-Level Constraints

Instrumentally rational decision makers might also be averse to hiring people with criminal records due to legal and firm-level regulations against hiring people with records (Holzer et al., 2004, Lageson et al., 2015). Individuals with felony convictions are often legally barred from certain occupations and professions by federal or state laws, including professional

licensure (Hahn, 2001; Jacobs, 2015a; Stafford, 2006). Additionally, firms may have internal policies about criminal convictions that restrict hiring (Lageson et al., 2015) and that also might influence individual decision makers to evaluate applicants more negatively. Thus, differential responses to criminal justice versus non-criminal justice signals might reflect legal and institutional constraints.

STIGMA

In contrast to repetition risk explanations, stigma explanations describe aversion as specific to criminal justice contact. As Goffman proposed, stigma results when an attribute transforms a person "from a whole and usual person to a tainted, discounted one," such that the attribute and its stereotypes dominate a person's identity ([1963] 1974:3). More recently, Link and Phelan describe stigma as a process of labeling, stereotyping, separation, status loss, and discrimination (2001). In these ways, stigma has been connected to employment discrimination vis-à-vis race/ethnicity, disability, gender, and immigration status (Bagenstos, 2000; Pager & Karafin, 2009; Reskin, 2000; Waldinger & Lichter, 2003). However, unlike some of these areas, stigma attached to the criminal justice system (sometimes referred to as "legal stigma") specifically involves government selection and labeling. Criminal records mark their bearers with "negative credentials" that institutionally brand them as a separate class and provide decision makers with a socially legitimated basis for exclusion (Pager, 2003;

11

Pager, 2007; Schwartz & Skolnick, 1962). In using the term stigma, we suggest that the label imparted by criminal justice contact itself, apart from behavior that was the basis for arrest or conviction, triggers stereotyping, separation, and status loss that influences employer aversion.

Selection into criminal justice contact—and the application of criminal justice labels—is structured by stereotypes about deviance and culpability, characteristics that are shaped by age, race/ethnicity, gender, and their intersection (Becker, [1963]1991; Grattet, 2011). Criminal justice agencies, through their priorities, policies, and practices, are more likely to select certain socio-demographic groups, such as racial/ethnic minorities living in poor areas, into criminal justice contact, even though illicit behaviors like drug use cut across socio-demographic lines (Beckett, 2012; Lynch, 2011; Rudovsky & Harris, 2018). Once labeled, stigma involves stereotyping that connects records to a range of undesirable characteristics associated with the criminal justice system. These attributes—such as dangerousness and untrustworthiness—reflect broadly negative characteristics of a discredited group, as opposed to characteristics specific to the prohibited behavior that prompted criminal justice involvement for any individual (e.g., Becker, [1963]1991; Denver et al., 2017).

Foundational to stigma is status and hierarchy (Link & Phelan, 2001). Criminal record labeling results in status loss at odds with "good" jobs, precluding entry into higher status positions, such as those involving customer contact, office work, or managerial tasks (Pager et al., 2009). At

the same time, stigmatic status loss might translate into positive preference for hiring into lower status jobs . Stigmatized applicants are deemed suitable (and even favored) for positions requiring manual labor and other types of "dirty work," even as they are excluded from higher-status positions (Holzer, Raphael, & Stoll, 2004; Hughes, 1951; Pager et al., 2009; Peck & Theodore, 2008; Waldinger & Lichter, 2003).

Race/Ethnicity

Criminal record stigma is inextricably bound to stereotypes about race/ethnicity, gender, and criminality. As mentioned, labeling via criminal justice contact is structured by institutional decisions and policing practices that target particular places and groups, resulting in large racial/ethnic disparities. Nearly half of non-Hispanic Black males will be arrested by age 23 as compared to 38% of non-Hispanic white males (Brame, Bushway, Paternoster, & Turner, 2014), and 26% of young Black men will have been convicted of a crime as compared to 14% of all young adults (Lerman & Weaver, 2014). Following criminal justice contact, long-standing stereotypes that link blackness to criminality entrench and perpetuate the criminal record as an overpowering "master status" among Black men and other racial/ethnic minorities, which exacerbate separation, status loss, and discrimination (Hughes, 1945; Muhammad, 2011; Western, 2018).

Empirically, experimental audit studies document that employer discrimination based on race/ethnicity alone is severe, and the additional

criminal justice penalty further reduces the likelihood of a positive evaluation (Pager, 2003; Pager et al., 2009; Uggen et al., 2014). These studies find statistically similar criminal justice penalties across racial/ethnic groups;[2] however, given the differential *prevalence* of criminal justice contact and labeling among racial/ethnic minority groups, the penalties exacerbate race/ethnicity inequalities in hiring overall. Indeed, as discussed earlier, the differential impact of criminal record aversion for racial/ethnic minorities in employment underlies the application of race discrimination law to criminal record screening.

CURRENT STUDY

Employer aversion to criminal records could be driven by both repetition risk and stigma. The balance between the two is important because policy and scholarly responses often suggest that aversion to repetition risk, even if imperfectly implemented, may provide the entire explanation. Because this type of rational risk management is viewed as defensible, the implication is that regulation of criminal record screening is unnecessary, except possibly to provide better information that facilitates more accurate assessments of future risk (e.g., Strahilevitz, 2008). In contrast, employer decision-making based on stigma would be more in line with widely accepted bases for regulating employment discrimination. By drawing on the arguments laid out above regarding repetition risk and

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[2] However, criminal record stigma might differ across racial/ethnic groups depending on context, such as whether the applicant has personal contact with an employer (Pager, 2003), and hiring stage, such as whether the hiring outcome is a callback or hiring decision.

14

stigma, we suggest three main sets of hypotheses to distinguish between these two mechanisms.

First, if hiring decision makers operate with a repetition risk framework, they will evaluate job applicants who exhibit prior prohibited conduct (in this case, drug use) similarly, regardless of whether the signal of prior conduct comes from the criminal justice system or other credible sources (hypothesis 1a). In contrast, if stigma explains aversion, hiring decision makers will more negatively evaluate applicants with criminal justice contact, such as having an arrest or conviction record (hypothesis 1b), and their evaluations may be particularly negative when considering Black male applicants (as opposed to white male applicants) with records (hypothesis 1b1) given stereotypes that link blackness and criminality (Muhammad, 2011). Moreover, employers will be concerned about a range of generalized undesirable behaviors, not only repetition of the prior conduct (hypothesis 1b2).

Second, if decision makers act according to repetition risk to avoid the specific concern of negligent hiring liability, they will more negatively evaluate applicants for positions that require customer contact, which are most relevant to future liability, as opposed to positions that involve office work or manual labor (hypothesis 2a). On the other hand, if stigma undergirds aversion, decision makers will more negatively evaluate applicants for higher-status positions, such as those that require customer contact or office work, as opposed to lower-status positions that involve manual labor (hypothesis 2b).

Third, hiring decision makers operating from a repetition risk framework might more negatively evaluate applicants with criminal records because of legal exclusions or firm-level constraints regarding records. If so, decision-makers' evaluations will become similar across applicants once adjusting for those constraints (hypothesis 3a). On the other hand, if stigma drives aversion, decision makers will continue to evaluate applicants with records more negatively even after these adjustments (hypothesis 3b).

STUDY DESIGN

We utilize data from an Internet survey experiment with U.S. adults who make hiring decisions for their firms. The survey was administered in Spring 2017 to 2,841 respondents sampled from an opt-in panel maintained by *Research Now*. *Research Now* maintains a "B2B" panel with information on a person's employment, allowing us to target hiring decision makers (Brandon, Long, Loraas, Mueller-Phillips, & Vansant, 2014). Potential respondents for the B2B panel were recruited through open enrollment and invitation methods, and members were then invited to participate in surveys in exchange for incentives from *Research Now*. In this study, e-mail invitations were sent to 15,275 panel members who previously identified themselves as hiring decision makers and/or small business owners. We then screened respondents based on age (18 years and older) and hiring decision making, such that respondents were eligible to participate if they answered yes to the following question: *do you currently work in a position*

where you make hiring decisions about job applicants? Of the 5,890 people

that opened the survey link (39% of those invited), we excluded people who

are under 18 years old (n=48) and who do not currently make hiring

decisions (n=2,548). We also excluded people who did not consent to the

study (n=250), did not finish the survey (n=201), or who completed it more

than once (n=2). Our final analytic sample (n=2,841) includes respondents

from all fifty states and represents 22.4% of those originally contacted who

met the eligibility criteria, a response rate consistent with with online

surveys (Tourangeau, Conrad, & Couper, 2013). If bias exists in the likelihood

of completing a survey based on a particular topic, research indicates that

the bias would need to be large to affect estimated relationships between

variables (Pickett, Cullen, Bushway, Chiricos, & Alpert, 2018).

EXPERIMENTAL MANIPULATIONS

Respondents were asked to evaluate job application materials for one

of four randomly-assigned applicants: a) one with no indications of prior

prohibited conduct ("control"), b) one with a social media signal of prior

prohibited conduct ("drug use") through a *Facebook* page, c) one with the

same social media signal of prior prohibited conduct, plus a corresponding

drug possession arrest that did not lead to conviction ("arrest"), and d) one

with the same social media signal of prior prohibited conduct, plus a

corresponding drug possession arrest and conviction ("conviction"). All

applicants were male, consistent with other experimental studies in this area

(Pager, 2003; Pager et al., 2009; Uggen et al., 2014), and respondents were asked to evaluate one job applicant in order to avoid comparisons when evaluating multiple applicants.[3]

Each group was further differentiated by race—specifically, Black and white applicants—as signaled through an avatar image on the *Facebook* page (see Appendix). All avatar characteristics, except skin and hair color, were identical.[4] This provides an admittedly limited signal of a complex, socially constructed process (Sen & Wasow, 2016) and we found no race interactions; accordingly, we group together Black and white applicants in most analyses.

We focus on a felony offense for cocaine possession, as opposed to a violent or property crime, for several reasons. First, drug possession has been the focal offense for landmark audit studies on criminal records (Pager, 2003; Pager et al., 2009). Second, drug possession is a relatively minor felony offense, which can (but need not) result in incarceration; this helps to disentangle potential employer aversion to transformative effects of incarceration from the criminal record itself (we return to this point in the Discussion). Third, prior drug use (and subsequent sobriety) is a behavior that more easily lends itself to signaling via social media. The findings are

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[3] This concern is less relevant in audit or correspondence tests, which typically use matched designs, where employers receive numerous job applications. A non-matched design has the additional advantages in estimating sample size and power at the design stage (Vuolo, Uggen, & Lageson, 2016; 2018).

[4] We refrained from signaling race through racially differentiated names because these may also convey socioeconomic status (e.g., Gaddis, 2017).

specific to this offense, since employers may be more averse to violent and property offenses compared to drug offenses (Holzer et al., 2007).

For all applicants, respondents were asked to evaluate a packet of application materials consisting of a one-page job application, a background check, and a *Facebook* homepage (see Appendix). Drug use without criminal justice contact (applicant (b)) was signaled through the *Facebook* homepage, where the applicant's top post referred to prior cocaine addiction and subsequent sobriety. Cocaine addiction implies more severe drug use than sporadic or casual use of an unspecified drug. Accordingly, we suggest that any additional severity implied by selection into criminal justice contact would be marginal. Because this applicant (and the control applicant) had no criminal justice contact, we included a background report in the application materials that listed no court records. The criminal justice treatments of arrest and conviction for drug possession (applicants (c) and (d)) were conveyed through the job application and background check materials; other information on the job application and background check, as well as the *Facebook* page, remained the same as for the drug use applicant (b). Thus, all applicants with drug use shared a social media signal of prior cocaine addiction and rehabilitation; criminal justice contact was an additional[5] signal referring to the same conduct and time period. For the control applicant (a),

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[5] This additional evidence of drug use raises the possibility that any observed incremental aversion to the record reflects the amplification of the social media drug use signal, not aversion specific to criminal justice contact. We return to this issue in the Discussion.

the *Facebook* page included a neutral placeholder post in lieu of the drug use reference.[6]

Apart from these differences, other applicant information was consistent across groups. Applicants had the same name, education, and work history (high school graduate; experience in three jobs, ranging from restaurant/service to office to labor positions and paying from $7.85 to $9.00 per hour, aligning with minimum wages at the respective times and locations), to indicate a less-skilled applicant with experience for an entry-level position requiring customer contact, office work, and/or manual labor. The employment dates were standardized across groups, while also consistent with the timing of prior drug use, arrest and conviction (when relevant); there was no variation in the recency of prior prohibited conduct across applicant groups that signaled previous drug use. Work history and conviction dates were constructed to allow for a brief incarceration, but they also did not explicitly state that the applicant had been incarcerated nor indicate a break in employment that might imply incarceration.

Using an experimental survey design with a B2B panel has advantages and limitations. A primary strength is that the experimental design addresses issues of selection and omitted variable bias, which observational studies cannot easily resolve. A second advantage is that we could solicit responses from hiring decision makers, as opposed to less relevant groups

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[6] As the Appendix shows, the top post on the *Facebook* page for drug use applicants stated, "Haven't touched coke for 2 years now. Feels good to be clean, not high!" and was accompanied by an image ("Hugs not drugs"). The neutral post for the control applicant had the same image, but the top post stated, "Yup."

such as college students or adults in other occupations. Third, the survey format enables us to signal prior prohibited behavior through non-criminal justice sources such as social media. Although nationally representative polls suggest that most employers (70% in 2017) use social media to screen candidates (CareerBuilder, 2017), consistent signaling would be difficult to ensure in an alternative setting, such as an audit study. Fourth, the survey approach permits us to examine potential mediators for employer aversion, including perceptions about the applicant's likelihood of future prohibited behavior, unlike audit studies that examine black-box decisional outcomes.

A survey experiment also has limitations, particularly relative to an audit in the field. First, employers' stated evaluations might differ from their actual hiring behavior. Hiring decision making in the field would be influenced by additional constraints, such as the need to fill positions and labor market conditions. Social desirability bias may also influence survey answers, leading to more lenient evaluations of applicants with records. Although social desirability bias is consequential for studies of racial discrimination (Apfelbaum et al., 2008; Pager & Quillian, 2005), its relevance to discrimination based on social media signals of behavior is unclear, and there is mixed evidence regarding criminal records. Research finds smaller differences between stated preferences and behaviors when considering criminal record discrimination (Pager & Quillian, 2005) and employers are often quite willing to state that they do not hire applicants with records (Holzer et al., 2007). A second limitation concerns selection into the opt-in

online panel of hiring decision makers. Online survey respondents not only have Internet access but are likely more adept at navigating the Internet, and relatedly, social media; however, these considerations may be less important in a study of hiring decision makers than elsewhere (Tourangeau et al., 2013). Moreover, with the growing prevalence of online surveys for marketing and social science research, some respondents might choose to take certain surveys or regularly take online surveys. Although it is unclear how frequent participation influences findings, respondent fatigue might lead to more error, putting a downward bias on the estimates. In our survey, we embedded a question to assess attentiveness, and we present supplementary findings restricted to the sample that correctly answered the question.

MEASURES

Respondents answered survey questions following their review of applicant materials. Attention was paid to question ordering to prevent respondents from being unintentionally influenced by previous questions in their evaluations.[7]

Attribute Scale. Respondents evaluated, on a seven-point scale,[8] the applicant's expected future behavior on the following attributes: team

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[7] Respondents were asked, in this order, about their likelihood of offering a positive response to the applicant, whether anything disqualified the applicant, and their evaluation of applicant characteristics, including likelihood of future drug use.

[8] For each attribute, respondents chose from the following answers: (1) extremely inaccurate, (2) very inaccurate, (3) somewhat inaccurate, (4) neutral, (5) somewhat accurate, (6) very accurate, and (7) extremely accurate.

player, late or absent often, follow workplace rules, steal from the workplace, work well with customers, respectful of workplace authority, use inappropriate language, hard worker, and get into a fight. In some analyses, negative attributes (e.g., late or absent often, steal from the workplace, etc.) are reverse coded and averaged into an overall scale, where larger values indicate more positive evaluations (α = .80).

Likely to Hire. Respondents were asked, on a seven-point scale,[9] about their likelihood of offering a positive response to the applicant for customer contact, office work, and manual labor positions. They were asked: "You are under pressure to quickly fill a variety of entry-level positions within your firm. How likely would you be to call back or interview this applicant for a position within your firm requiring: customer contact [office work, physical labor]?" In some analyses, answers are aggregated into a single *likely to hire* estimate (α = .87).

We examine both the attribute scale and the likely to hire measures as outcomes. The former measure captures expectations about the applicant's future behaviors, and the latter measure takes into account other concerns, such as firm preferences and the relative standing of the applicant compared to the firm's typical applicant pool.

Other Measures. In some analyses, we measure future drug use, firm-level policies regarding convictions, and legal prohibitions against hiring. For future drug use, we ask the respondent to assess the applicant's likelihood of

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[9] Respondents were asked to choose from the following answers: (1) extremely unlikely, (2) very unlikely, (3) somewhat unlikely, (4) neither likely nor unlikely, (5) somewhat likely, (6) very likely, and (7) extremely likely.

being under the influence of drugs or alcohol at work. For firm-level policies

about convictions, we include a categorical variable based on whether the

firm has no policy, the hire must be approved by human resources, or the

applicant is immediately disqualified. For legal prohibitions, we use a

measure of whether the respondent states that the applicant is disqualified

from the position due to a "legal prohibition."[10]

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[10] To avoid priming the respondent, we did not ask whether the legal prohibition specifically concerned prior drug use, arrest, or conviction. Consequently, this measure captures any perceived legal constraint, including but not limited to hiring someone with a criminal record.

ANALYTIC METHODS

Our analysis proceeds in three main stages. First, we compare employer evaluations for the control, drug use, arrest, and conviction groups. The repetition risk explanation (hypothesis 1a) predicts that evaluations will be similarly negative across the drug use, arrest, and conviction groups relative to the control group. The stigma explanation (hypothesis 1b) proposes that applicants with criminal justice contact (e.g., arrest or conviction) will be more negatively evaluated compared to both the control and drug use applicants. We assess differences across groups using t-tests (for the attribute scale) and ordered logit regression models (for the likely to hire measures) to account for multiple answers for customer contact, office work, and manual labor positions across respondents. We also examine differences in the attribute scale and likely to hire outcomes across these groups by applicant race in regression models, in order to investigate whether aversion to records is particularly consequential for Black applicants (hypothesis 1b1).

As part of this analysis, we examine the connection between prior and future prohibited conduct across groups. We investigate how different signals of prior prohibited conduct are associated with employer predictions about future related conduct (drug or alcohol use at work) and a range of other attributes (e.g., team player, late or absent often, etc.). Results consistent with the repetition risk explanation would predict the most

negative evaluations for future drug use, as compared to more distant attributes, such as being a team player. Stigma explanations predict negative evaluations across a range of attributes, indicative of generalized aversion (hypothesis 1b2).

We also directly adjust for employer predictions of future drug use in regression models, as an additional test of whether employer aversion to records remains even after directly accounting for expectations about future behavior. Although repetition risk explanations should not depend on the signal's source, as long as it is credible, decision makers could be more averse to applicants with criminal justice contact if they perceive that it signals particularly severe forms of prior behavior (and higher risk of future behavior). In other words, decision makers might interpret criminal justice contact as selecting among illegal drug users (even among those who indicated prior cocaine addiction) on the basis of more serious or extensive drug use that corresponds with more severe risk of future drug use. If employers operating from a repetition risk standpoint perceive a greater likelihood of future prohibited conduct among applicants with criminal justice contact, differences in aversion should disappear once differential predictions of future prohibited conduct are taken into account.

In the second analytic stage, we examine whether aversion varies among job positions requiring customer contact, office work, and manual labor. If respondents are averse to applicants with records because of concerns that repeated criminal conduct could trigger future negligent hiring

lawsuits, we expect greater penalties for positions involving customer contact, relative to office work and manual labor positions (hypothesis 2a). If, however, stigma undergirds aversion, office work and customer contact position should be treated similarly, with greater penalties for these higher-status positions relative to manual labor positions (hypothesis 2b).

In the third analytic stage, we examine whether legal exclusions and firm-level constraints explain aversion towards applicants with records. If employers are operating from a repetition risk framework, evaluations should be similar across applicants after legal prohibitions and firm policies are considered (hypothesis 3a). However, aversion to criminal records that persists, even after making these adjustments, provides further evidence of stigma's influence (hypothesis 3b). To adjust for firm-level policies, we include variables in regression models for policies about convictions that require additional scrutiny for or simply exclude applicants with convictions. To account for legal prohibitions, we limit the analytic sample to respondents who do not state that they are legally prohibited from hiring the applicant.

RESULTS

Table 1 presents descriptive information about the sample of respondents and their firms. The majority of respondents is male (60%), white (89%), and has a college degree (77%). The median age is 46 to 50 years old, and the median amount of time spent in hiring positions ranges from 6 to 10 years. Respondents come from a variety of industries, including

finance and professional (28%), labor (22%), sales (14%), and service (22%).

The majority work in for-profit firms (82%) and in firms located in only one

state (75%). Nearly half report no firm-level policy regarding convictions

(48%), although one-quarter (24%) state that applicants with convictions are

immediately disqualified from any position within their firm. A minority

(12%) report that they are legally prohibited from hiring the applicant that

they evaluated. Because of the opt-in nature of the sample, these estimates

are presented for contextual purposes.

[Table 1 About Here]

Table 2 presents means for the attribute scale and likely to hire

outcomes. For both outcomes, respondents evaluate the control applicant

(no prior drug use) most positively (attribute scale = 4.74, likely to hire =

3.69), with decreasingly favorable evaluations for the applicant with prior

drug use (attribute scale = 4.52, likely to hire = 3.37), with an arrest

(attribute scale = 4.44, likely to hire = 3.26), and with a conviction (attribute

scale = 4.36, likely to hire = 3.19). For the attribute scale, a conviction

reduces the mean by .16 (p <.001), or a one-fifth of a standard deviation

decrease in the scale, compared to drug use only. For the likely to hire

outcome, a conviction reduces the mean by .18 (p <.05), or a one-tenth of a

standard deviation decrease, compared to drug use only.[11] Overall,

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[11] We repeated this analysis with a sample restricted to respondents that correctly answered a question, embedded in the set of attribute questions, that assessed respondent attentiveness (Tourangeau et al., 2013). The results are very similar to the full analytic sample, with two exceptions. First, for the attribute scale, the difference between assessments for conviction and arrest is marginally significant (not at the .05 level, as in the full sample). Second, for the likely to hire outcome, the difference between conviction and drug use is marginally significant (not at the .05 level).

respondents are averse to all applicants with evidence of prior drug use, but their aversion is most severe towards those who also have criminal justice contact, and particularly, those with convictions. Differential aversion to those with records goes against our predictions for the repetition risk explanation alone (hypothesis 1a) and lends support to stigma playing a role (hypothesis 2a).

[Table 2 About Here]

Next, we examine several questions related to the main analyses. First, we investigate the relationship between prior and future prohibited conduct, by examining predictions about the likelihood of future drug and alcohol use at work. Figure 1, Panel A displays differences between the control applicant and other groups (e.g., applicant with prior drug use, arrest, and conviction) for various attributes. Respondents expect that applicants with prior drug use (but no criminal justice contact) will be more likely to be under the influence of drugs or alcohol at work compared to the control applicant (mean = 3.58 compared to control mean = 3.25, $p < .001$). However, applicants with criminal justice contact are associated with even higher predictions of future drug or alcohol use at work. Figure 1, Panel B displays differences between likelihood of future drug use for drug use applicants and applicants with an arrest (mean = 3.71, $p < .10$) and a conviction (mean = 3.77, $p < .05$). Respondents expect that applicants with criminal records are more likely to repeat prior prohibited conduct—i.e., drug

use—compared to applicants with similar prior conduct but without criminal justice contact.

[Figure 1 About Here]

Figure 1 also compares employer predictions about other applicant attributes across experimental manipulations. As Panels A and B show, respondents generally evaluate applicants with drug use, arrest, and conviction more negatively in terms of these other attributes. Exceptions include the likelihood of being "late or absent often" and using "inappropriate language," where respondents do not evaluate the drug use applicant (without criminal contact) to be significantly more likely to exhibit these attributes. In contrast, applicants with criminal records are ascribed these characteristics ("late or absent" and "inappropriate language") significantly more, as compared both to the control group (Figure 1, Panel A) and to applicants with drug use only (Figure 1, Panel B). Moreover, respondents are significantly more averse to applicants with convictions, in particular, across the range of negative attributes, including the likelihood of stealing and getting into a fight. Respondents are also significantly less likely to expect applicants with convictions to work well with customers and respect workplace authority, as compared to applicants with drug use only. Although respondents generally evaluate applicants with arrests more negatively compared to drug use applicants, there are some exceptions (e.g., "team player" and "follow rules"), and most of these differences are not statistically significant.

We directly adjust for predictions about future drug use in regression

models. This accounts for the possibility that criminal justice contact signals

more severe prior conduct (with greater risk of repetition) compared to

behavior indicated through social media. Table 3, Model 1 shows estimates

for the attribute scale and likely to hire outcomes, which parallel the main

results in Table 2; Model 2 includes future drug use as a covariate. For the

attribute scale, adjusting for future drug use substantially reduces the

coefficient for drug use, arrest, and conviction (by 45%, 48%, and 42%,

respectively); even so, respondent evaluations remain significantly more

negative for applicants with convictions, as compared to control applicants

(b = -.22, p <.001, corresponding to a .28 decrease in the standard

deviation), applicants with drug use only (b = -.10, p <.01, corresponding to

a .13 decrease in the standard deviation), and applicants with arrests (b =

-.07, p <.05; corresponding to a .09 decrease in the standard deviation).[12]

For likely to hire, predictions about future drug use make little difference,

although the coefficient on conviction is now marginally significant (b = -.46,

p = .06).

[Table 3 About Here]

In additional analyses (available upon request), we repeat the main

models by further distinguishing applicants by race. In regression models

(the equivalent of Table 3, Model 1), we include a variable distinguishing

Black and white applicants, to test a direct effect of race on employer

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[12] The latter two estimates for coefficients and p-values are based on regression models that
change the reference group to drug use and arrest, respectively.

evaluations, and interactions between the experimental manipulations and race, to test whether criminal record aversion is stronger for Black applicants. For both the attribute scale and the likely to hire outcomes, we find no significant direct effect of race and no interaction effects. The coefficients for the experimental manipulations predicting the attribute scale are similar to the main models (drug use: $b = -.20$, $p <.001$; arrest: $b = -.23$, $p <.001$; conviction: $b = -.37$, $p <.001$) and conviction remains significantly different from drug use only and arrest. For likely to hire, the coefficients are also generally similar to the main models (drug use: $b = -.33$, $p <.01$; arrest: $b = -.28$, $p <.05$; conviction: $b = -.49$, $p <.001$), although the difference between a conviction and drug use only is not significant.

AVERSION BY JOB TYPE

Next, we examine whether aversion varies by job type. Higher aversion related to positions requiring customer contact suggests that employers are concerned about future negligent hiring liability, consistent with repetition risk predictions (hypothesis 2a). In contrast, higher aversion related to positions that are higher-status (e.g., requiring customer contact or office work) aligns with stigma expectations (hypothesis 2b). Table 4 displays means for likely to hire outcomes across these three job types. Similar to the pattern of results in the main models (Table 2), evaluations of applicants with drug use only, an arrest, and a conviction are increasingly negative across experimental manipulations for customer contact positions.

Compared to drug use only, a conviction results in a .24 decrease in the likely to hire estimate (p <.01), or a nearly one-third (.31) of a standard deviation decrease. In isolation, these results for customer contact positions are consistent with negligent hiring concerns. However, the same pattern of increasing aversion also characterizes positions requiring office work. That setting is arguably less relevant to negligent hiring liability because co-workers rather than customers bear risk of injury; however, it is similar to customer contact positions as a higher-status job. In contrast, for manual labor positions, drug use applicants are evaluated similarly, regardless of whether they have criminal records.

[Table 4 About Here]

LEGAL AND FIRM-LEVEL CONSTRAINTS

The results indicate particular aversion to applicants with convictions for positions requiring customer contact and office work. This could reflect spillover effects from firm-level policies about convictions or legal prohibitions against hiring applicants with records. These could influence both respondents' hiring decisions and their general evaluations when operating from a rational risk management framework (hypothesis 3a). Aversion that persists after accounting for these external constraints, however, would provide further evidence that employers are influenced by stigma (hypothesis 3b). To examine firm-level policies, Table 5, Model 1 includes variables for firm-level conviction policies; including these measures does not change the substantive differences across experimental groups and job type. To adjust for legal constraints, Model 2 excludes respondents who state that a legal prohibition disqualifies the applicant from the position. For the attribute scale, employers not under legal prohibitions still negatively evaluate applicants with criminal justice contact—for both convictions *and* arrests—in relation to applicants with drug use only (denoted by (a)). For these respondents, an arrest decreases the attribute scale by .08 ($p<.05$), or one-tenth (.11) of a standard deviation, and a conviction decreases the scale by .13 ($p<.01$), or one-sixth (.17) of a standard deviation. For the likely to hire outcomes (panels B, C, and D in Table 5), these respondents evaluate applicants with arrest and convictions more negatively, but again, only for

positions requiring customer contact and office work. Although in this smaller sample, most of these likely-to-hire differences are not statistically significant, the magnitude of the coefficients for arrest and conviction for customer contact and office positions are similar to those in the full sample.

[Table 5 About Here]

DISCUSSION

We utilize an experimental employer survey to examine two explanations for aversion: repetition risk and stigma. The results suggest three main findings, all indicating that aversion is not solely explained by repetition risk and depends in part on stigma. First, employers are more averse to applicants with criminal records compared to those with similar behavior signaled through social media. Even after adjusting for employers' predictions about future drug use (and apart from the experimental design itself), aversion to records remains. Moreover, rather than singling out repetition of prior conduct as a risk, employers predict that applicants with criminal records (and especially, convictions) are more likely to engage in a range of undesirable behaviors. Some of these (e.g., using inappropriate language) are quite distant from the specific behavior of prior drug use. Overall, the pattern of results is consistent with the view that stigma influences negative evaluations.

We additionally examined whether aversion is particularly severe towards Black applicants. We did not find evidence of a direct penalty for

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Black applicants nor did we find that race moderates the association between criminal records and aversion. Although audit studies also find statistically similar penalties of a criminal record for Black and white applicants (e.g., Pager, 2003; Pager et al., 2009; Uggen et al., 2014), the lack of a direct race penalty is at odds with these studies and a large body of research that documents persistent racial discrimination (e.g., Bertrand & Mullainathan, 2004; Gaddis, 2015; Kirschenman & Neckerman, 1991). There are several possible explanations for this difference. First, respondents may not have received the race signal as effectively as they would in an actual hiring context. Second, race may be consequential in deciding whether to call-back an applicant in the context of having to choose among a range of potentially qualified applicants, even if it does not influence the specific evaluations captured by the attribute scale and likely to hire measures. Third, race-based manipulations may be particularly prone to social desirability bias, given that racial discrimination is widely acknowledged as illegitimate and illegal in hiring. Recent research suggests that individuals may be increasingly aware of their need to regulate any appearance of differential treatment based on race (Apfelbaum, Sommers, & Norton, 2008). Consequently, we interpret the findings by race with caution, and note that even statistically similar criminal record penalties across groups generate racial/ethnic disparities in hiring given the differential prevalence of criminal justice contact.

A second primary finding is that employer aversion varies by job position. The pattern of similar aversion across positions requiring either customer contact or office work, but not manual labor, is inconsistent with aversion driven by negligent hiring concerns because harms to customers produce greater exposure to liability than do harms to coworkers covered by workers compensation. Instead, the findings align with stigma explanations that predict applicants encounter status-linked aversion incompatible with hiring into higher status positions and "good" jobs. Indeed, scholarship on stigma finds that employer aversion does not apply to "dirty work," and in some cases, employers prefer to hire stigmatized applicants for "bad" jobs (Pager et al., 2009; Waldinger & Lichter, 2003). These findings reinforce the need in future research to distinguish among positions and capture not only functionally different job requirements but also status distinctions that render positions more or less suited to hiring stigmatized workers (Bumiller, 2015).

Negligent hiring concerns aside, employers could be averse to applicants with records because both customers and co-workers are themselves averse to working in or buying from a firm that employs people with criminal records. Even if these third parties' aversion goes beyond the employer's own assessment of repetition risk, employers might penalize applicants with records to satisfy their customers' and employees' preferences, including ones potentially grounded in stigma. Here, employers manage potential costs that do not arise from the repetition of future

conduct (or related negligent hiring liability) but that nonetheless may be part of a rational strategy to maximize customer and co-worker satisfaction. This potential mechanism, however, does not obviously predict the observed variation by job type, where criminal record penalties are absent from manual labor positions but present in both customer contact and office work positions, even though co-worker backlash presumably would occur in each case. Moreover, as with employers who cater to the racial prejudices of customers and co-workers despite not sharing them, such "rational discrimination" based on third-party aversion is generally treated in law and policy as failing to justify aversion (Bagenstos 2003). Stigma still influences employer decision making, but at one step removed via deference to third-party preferences.

A third finding is that aversion largely persists even after accounting for firm-level policies or legal prohibitions that could constrain decision makers' hiring of applicants with records. Although we do not discount the importance of such policies and restrictions, the results indicate that they cannot fully explain employers' negative evaluations. Rather, individual decision makers—apart from their firm's formal policies and external constraints—continue to express aversion to criminal records when performing their hiring function.

Overall, the findings underscore the power of the criminal record in hiring decision-making. The record itself not only worsens perceptions of future risks that prior conduct will be repeated but also underwrites

ascription of a range of negative attributes to its holders that extend far beyond the behavior that originally prompted criminal justice contact. As institutional markers, or negative credentials (Pager, 2003; 2007), criminal records are imbued with perceptions of legitimate exclusion that take precedent over the actual behavior and statements of the individual. In the hands of decision makers with limited time and resources, these aspects of criminal records can become an applicant's "master status," which overrides other qualifications and assigns a range of stigmatized behaviors that are largely uncoupled from the underlying illegal conduct (Hughes, 1945). Moreover, because selection into criminal justice contact is influenced not only by a person's conduct but also a range of other factors related to race/ethnicity, neighborhood, and gender (e.g., Beckett, 2012; Rudovsky & Harris, 2018), reliance on the record as a sorting mechanism exacerbates socioeconomic inequalities and does not provide decision makers with the neutral filter envisioned by a repetition risk framework.

Our aim for this article was to conceptualize a common justification for employer aversion in policy, legal, and scholarly debates—which we term repetition risk—and to test whether it adequately explains aversion in an experimental context. Raising this idea implicates a more general question: how do employers interpret criminal records and what information do they attribute to records? For example, some scholarship discusses "transformative effects" of criminal justice contact, and particularly, the deterioration of human capital and "soft skills" due to incarceration (Pager,

2007; Western, 2002). Employers might interpret criminal records as indicating poor communication and job skills resulting from imprisonment itself. Several considerations minimize our concern that this explanation drives our findings. First, the study design held constant all applicant characteristics, with the exception of prior prohibited conduct and its signal. Second, applicant materials did not explicitly convey incarceration; although incarceration may be a logical extension of criminal justice contact, respondents were not given direct evidence of this. Applicants' employment histories were constructed to allow for the possibility of no incarceration, and any incarceration could not have exceeded one year. Third, employers show aversion toward applicants with arrests, as well as convictions, even though incarceration (and corresponding transformative effects) are likely to be minimally associated with arrest.

A second example relates to employer perceptions about the reasons for criminal justice contact. Employers might believe that a criminal record signals not only illicit behavior reflected in the recorded charge (e.g., drug possession) but also other types of illicit behaviors (e.g. theft, violence, etc.) that prompted law enforcement action but did not generate a formal record. For instance, initial charges may be downgraded at later stages of prosecution, including through plea bargaining (Feeley, 1982; LaFave, 1970; Wright & Engen, 2007); the resulting conviction does not reflect illicit conduct that may have initially motivated arrest and prosecution. Although we exclude this specific possibility by coupling conviction records with arrest

records showing the same initial charge, it remains possible—though we are aware of no research demonstrating it—that employers believe that police officers decide to arrest a person for drug possession in part because the person engaged in other illicit conduct that is known to the officer but is not the formal basis for arrest. Such employers might treat the drug offense record as indicating possible future repetition of either the drug offense or other illicit, uncharged activity that led to the arrest.

We do not view the pattern of findings as supporting this explanation. First, employer predictions about the likelihood of serious illicit behaviors, such as stealing and fighting, are in line with their predictions about other attributes indicating generalized undesirability, such as being late or absent and using inappropriate language. Second, employers are not any more averse to applicants with records, as compared to those with drug use signaled via social media, when hiring for low-status jobs requiring manual labor. If employers were operating from the belief that records connote more serious forms of illicit behavior like violence or theft, we would expect to see this reflected in their evaluation of specific attributes and in aversion across all job types.

Both explanations—transformative effects and other illicit behaviors— raise questions about the meaning of the record to employers. Do employers believe that records connote incarceration and transformative effects? Do employers have a sophisticated account of how people are selected into criminal justice contact, such that they believe an arrest record indicates

additional serious behavior, as opposed to vulnerability to criminal justice institutions for other reasons, like race/ethnicity, neighborhood, etc.? If employers believe that criminal records indicate these and other potentially instrumental concerns, which may or may not be supported by empirical evidence, this additionally raises the question of how to interpret situations where inaccurate beliefs form the basis of seemingly rational decision making. In the context of racial discrimination in hiring, Pager and Karafin draw from social-psychological theory on "subtyping" to explain how employers use seemingly rational explanations to justify their aversion to Black applicants, even though the explanations may be based in inaccurate and disconfirming information (2009). In the case of criminal records, inaccurate beliefs about criminal justice contact may similarly exacerbate stereotypes and stigma, even though they are put forward within a model of rational decision making.

Because our findings are specific to certain design choices (e.g., felony drug possession, high school diploma, etc.), they call for additional research that examines how mechanisms such as repetition risk and stigma might differ based on other applicant characteristics (e.g., Gaddis, 2015; Nunley, Pugh, Romero, & Seals, 2017). In this article, as previously noted, our focus on drug possession has certain advantages (e.g., its relevance to prior criminal record studies, the feasibility of keeping job history timelines consistent across groups, etc.). We consider this choice to be a conservative test of divergence between repetition risk and stigma explanations. Prior

work indicates that employers are typically less averse to drug-related offenses, as opposed to violent and property crimes (Holzer et al., 2007). Moreover, in our study, evidence of sobriety reinforces the concept of "second chances," which is a consistent theme among employers who are willing to hire applicants with criminal records (Pager, Western, & Sugie, 2009). Although we expect that employers are more averse to applicants with criminal records for violent and property offenses, independent of actual conduct, this would be a fruitful research area.

The study was also designed in such a way that criminal justice information was signaled in addition to direct statements about drug use (and not in lieu of such statements). Consequently, one possible interpretation of increasing aversion to applicants with drug use, arrests, and convictions is that it reflects additional and cumulative signals of prohibited conduct. Although this explanation aligns with the main findings, it is not clear why positions involving manual labor would deviate from the pattern of increasing aversion.

It is also possible that employers in different cities or regions, such as those with higher proportions of job seekers with criminal records, tighter labor markets, or Ban the Box laws would be less averse to hiring those with records (e.g., Lahey & Beasley, 2018; Tilcsik, 2011). We were unable to look at these distinctions with our data. Differences by Ban the Box laws, in particular, raise additional questions about how employers perceive and manage potentially competing legal constraints such as Ban the Box laws

and negligent hiring liability. Just as job seekers with criminal records face a legal "double-bind" when trying to find work and comply with supervision requirements (Augustine, 2019), employers encounter laws that present seemingly conflicting objectives.

POLICY IMPLICATIONS

We focused on repetition risk as a potential mechanism for aversion because of its prominence in current policy debates about criminal record screening. For example, the view that repetition risk drives criminal record screening, combined with evidence that employers turn to statistical discrimination based on race and other illegal characteristics in the absence of screens, underwrites sympathy for employer screening and skepticism about restrictions like Ban the Box. If people with records face barriers to employment because employers correctly perceive that hiring them exposes their firms to costly risks, then the better way to lower those barriers may be to reduce employer costs rather than require employers to bear these risks. Such alternatives include information strategies that enable cheaper sorting of workers into those who do and do not carry repetition risk, offsetting interventions like training or work experience that make jobseekers with records more valuable on net, and subsidy strategies that shift to the public any incremental costs of hiring people with records (Doleac, 2016; Jacobs, 2015b; Strahilevitz, 2008; Williams, 2007). Proponents argue that such interventions may be more effective at changing employer behavior, fairer to

employers whose aversion is seen as legitimate, and less likely to trigger the perverse consequences of statistical discrimination.

However, our findings indicate that aversion is not exclusively driven by repetition risk but also reflects stigma resulting from criminal justice contact. Consequently, permitting decision makers unrestricted access to records opens the door to forms of exclusion that are based, even if partly, on stigma and stereotypes generated by the criminal justice system. In this case, the natural legal response is to attempt to sort employers into those that screen for more versus less appropriate reasons, allowing the former but prohibiting the latter. That is precisely what the "nexus" rules of Fair Chance hiring and antidiscrimination laws attempt to do. For instance, the most stringent Fair Chance laws allow employers to screen for records only after a conditional offer is made. If an employer subsequently decides to retract the offer, it must connect the prior conduct from the record to the instrumental concerns of the specific job position, and also must consider evidence of rehabilitation that makes re-offending (repetition) unlikely. In this way, Fair Chance permits screening to the extent it addresses repetition risk while prohibiting unrestrained access to records that opens the door to decision-making driven by stigma.

Because criminal justice contact disproportionately impacts groups with already low social status (e.g., who are poor, who are racial/ethnic minorities, who live in areas of concentrated disadvantage), unfettered access to criminal records—among employers as well as other decision

makers, such as landlords and colleges—may exacerbate long-term

joblessness, low earnings, housing instability, and other inequalities

(Desmond, 2016; Lageson, 2016; Wakefield & Uggen, 2010; Western, 2002).

Policy responses driven by deference to employers' legitimate need to find

trustworthy, productive workers should consider evidence that employer

aversion also reflects other mechanisms, including stigma resulting from the

criminal record itself and not simply the underlying conduct.

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Figure 1. Difference between Experimental Groups and Control (A) and Drug Use (B), by Attributes
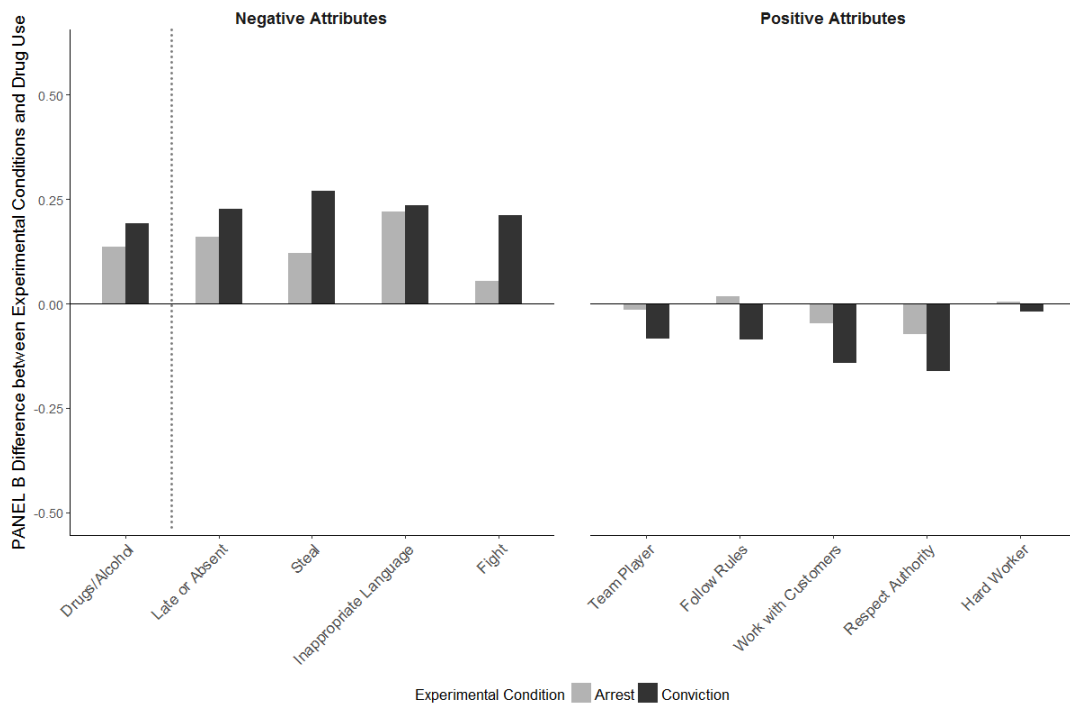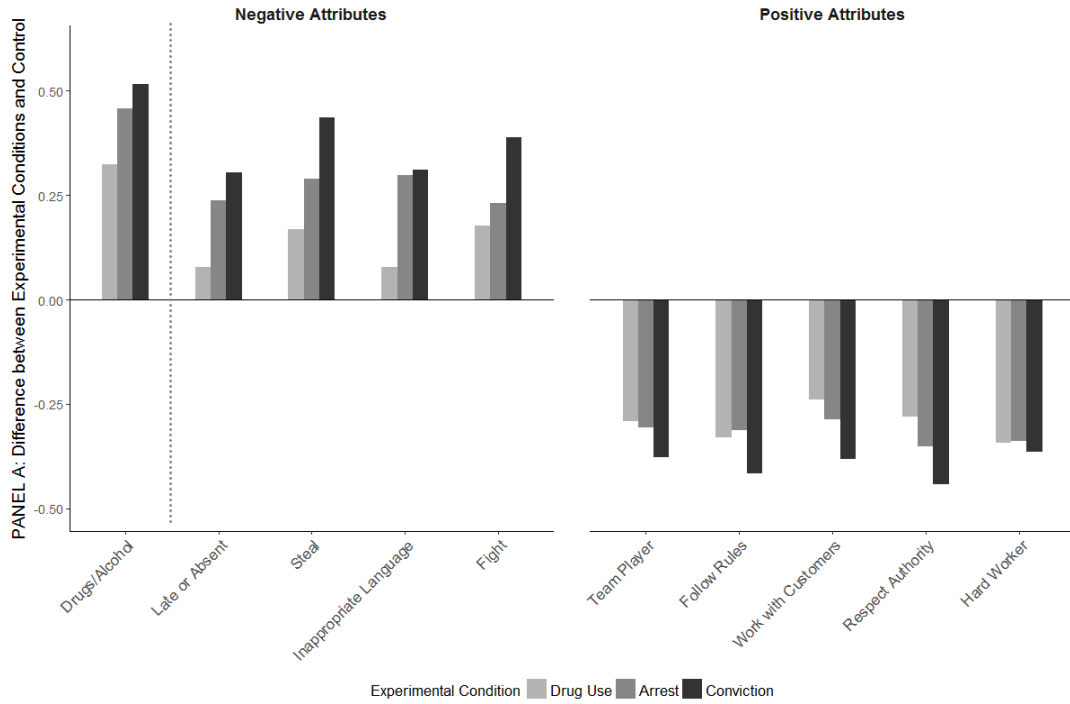
Notes: in Panel A, all differences are statistically significant (*p*-value <0.05) with the exception of the "late or absent" and "inappropriate language" attribute differences for the applicant with drug use. In Panel B, differences for attributes "late or absent" and "inappropriate language" are significant (*p*-value <0.05) for the applicant with arrest, and differences for all attributes are significant for the applicant with conviction, except for "team player," "follow rules," and "hard worker."

Table 1. Respondent and Firm Characteristics

	%/Median
Respondent Characteristics	
Male	59.80%
Race/Ethnicity (non-exclusive)	
White	89.17%
Black	2.88%
Hispanic	3.89%
Asian	4.32%
Other	1.40%
Education	
High School or Less	4.79%
Some College	18.40%
College	76.73%
Age, in years (median category)	46-50
Tenure in Hiring Positions, in years (median category)	6-10
Firm Characteristics	
Industry	
Finance and Professional	27.70%
Labor	21.57%
Sales	14.09%
Service	22.00%
Other	14.59%
Type	
For-profit	82.17%
Governmental	4.53%
Non-profit	13.30%
Location Breadth	
1 State	75.16%
2-5 States	19.47%
More than 6 States	5.37%
Policy about Conviction	
No Policy	48.15%
HR	27.79%
Immediate Disqualification	24.06%
Respondent is Legally Prohibited from Hiring Applicant	12.38%

Notes: Sample size for each characteristic ranges from 2,702 to 2841, due to missing data on select variables.

Table 2. The Effect of Drug Use, Arrest, and Conviction for Employer Evaluations

	Control	Drug Use		Arrest			Conviction			
				Experimental Condition		(b)				(c)
	Mean	Mean	(a)	Mean	(a)	)	Mean	(a)	(b)	)
Attribute Scale	4.74	4.52	***	4.44	***		4.36	***	***	*
	(.80)	(.77)		(.77)			(.79)			
Likely to Hire	3.69	3.37	***	3.26	***		3.19	***	*	
	(1.61)	(1.72)		(1.78)			(1.80)			
N (Respondents)	628	743		737			733			

Notes: Standard deviations in parentheses. For scale of attributes and likely to hire, larger values indicate more positive evaluations. Significance tests compare the coefficient to (a) control, (b) drug use, and (c) arrest. Tests for scale of attributes are two sample t tests. Tests for likely to hire are ologit regression models that cluster respondents.
*p<.05, **p<.01, ***p<.001 (two-tailed tests)

Table 3. Regression Models of Employer Evaluations, Adjusting for

Future Drug Use

	Model 1		Model 2 With Future Drug Use	
	Unadjusted Coef.		Coef.	
A. Attribute Scale				
Experimental Manipulation (ref = control)				
Drug Use	-.22	***	-.12	***
	(.04)		(.03)	
Arrest	-.29	***	-.15	***
	(.04)		(.03)	
Conviction	-.38	***ab	-.22	***ab
	(.04)		(.03)	
Future Drug Use			-.31	***
			(.01)	
B. Likely to Hire				
Experimental Manipulation (ref = control)				
Drug Use	-.32	***	-.31	***
	(.08)		(.08)	
Arrest	-.42	***	-.39	***
	(.08)		(.08)	
Conviction	-.49	***a	-.46	***
	(.08)		(.08)	
Future Drug Use			-.06	
			(.03)	
N (Respondents)	2841		2841	

Notes: Standard errors in parentheses. Scale of attributes coefficients are estimated using linear regression models with robust standard errors. Likely to hire coefficients are estimated using ologit regression models with clustered standard errors for multiple observations within respondents (N=7,494 to 8,523). Coefficients are significantly different from (a) drug use and (b) arrest.
*p<.05, **p<.01, ***p<.001 (two-tailed tests)

Table 4. The Effect of Drug Use, Arrest, and Conviction for Likely to Hire Evaluations, by Position Type

	Control	Drug Use		Arrest			Conviction		
						(b)			(b) (c)
	Mean	Mean	(a)	Mean	(a)		Mean	(a)	(b) (c)
Customer Contact	3.60	3.25	***	3.14	***		3.01	***	**
	(1.56)	(1.70)		(1.74)			(1.79)		
Office	3.52	3.24	**	3.03	***	*	3.01	***	*
	(1.65)	(1.75)		(1.81)			(1.84)		
Labor	3.95	3.61	***	3.62	***		3.55	***	
	(1.59)	(1.69)		(1.72)			(1.73)		
N (Respondents)	628	743		737			733		

Notes: Standard deviations in parentheses. Larger values indicate more positive evaluations. Significance tests compare the coefficient to (a) control, (b) drug use, and (c) arrest. Tests are based on ologit regression models.
*$p<.05$, **$p<.01$, ***$p<.001$ (two-tailed tests)

Table 5. Regression Models of Employer Evaluations, with Firm-Level Policies and Legal Prohibitions

	Model 1 With Firm-Level Policies for Conviction Coef.		Model 2 Respondents Without Legal Prohibitions Coef.	
A. Attribute Scale				
Experimental Manipulation (ref = control)				
Drug Use	-.22	***	-.25	***
	(.04)		(.04)	
Arrest	-.29	***	-.33	***a
	(.04)		(.04)	
Conviction	-.39	***ab	-.38	***a
	(.04)		(.05)	
Policy about Conviction (ref = no policy)				
HR	.08	*		
	(.04)			
Immediate Disqualification	-.14	***		
	(.04)			
B. Likely to Hire - Customer Contact				
Experimental Manipulation (ref = control)				
Drug Use	-.36	***	-.42	***
	(.09)		(.10)	
Arrest	-.44	***	-.56	***
	(.09)		(.10)	
Conviction	-.61	***a	-.60	***
	(.10)		(.10)	
Policy about Conviction (ref = no policy)				
HR	.30	***		
	(.08)			
Immediate Disqualification	.07			
	(.11)			
C. Likely to Hire - Office				
Experimental Manipulation (ref = control)				
Drug Use	-.27	**	-.29	**

	(.09)		(.10)	
Arrest	-.43	***	-.52	***a
	(.10)		(.10)	
Conviction	-.50	***a	-.45	***
	(.10)		(.10)	
Policy about Conviction (ref = no policy)				
HR	.25	***		
	(.08)			
Immediate Disqualification	.22	*		
	(.11)			

D. Likely to Hire - Labor

Experimental Manipulation (ref = control)

Drug Use	-.42	***	-.40	***
	(.10)		(.10)	
Arrest	-.37	***	-.36	***
	(.10)		(.10)	
Conviction	-.46	***	-.37	***
	(.10)		(.10)	
Policy about Conviction (ref = no policy)				
HR	.11			
	(.08)			
Immediate Disqualification	-.03			
	(.10)			
N (Respondents)	2702		2498	

Notes: Standard errors in parentheses. Scale of attributes coefficients are estimated using linear regression models with robust standard errors. Likely to hire coefficients are estimated using ologit regression models with robust standard errors. Coefficients are significantly different from (a) drug use and (b) arrest.
*p<.05, **p<.01, ***p<.001 (two-tailed tests)

Appendix. Materials for Applicant with a Conviction

Application For Employment

We Are An Equal Opportunity Employer

Please Print

Last Name	First Name	Middle Initial	Social Security Number
Brown	Jonathan	H.	478-86-9563

Address	City	Zip Code	Phone Number
7916 Maple Ave	Phoenix	85109	303-555-0151

WORK EXPERIENCE - LIST MOST RECENT JOB FIRST

From/To	Employer's Name/Address/Telephone	Start Pay / Last Pay	Job Title / Reason for Leaving
From 2014 To 2016	BuildRite Staffing 9275 Hillcrest Phoenix, Az	9.00/hr / 9.00/hr	Laborer /
Describe the Work You Did			
From 2012 To 2013	American Communications Co. 19412 Montgomery St. Cleveland OH	8.50/hr / 8.50/hr	File Clerk / Relocation
Describe the Work You Did			
From 2011 To 2012	Steele & Shalee Text Steelyard Commons 3294 Steelyard Dr. Cleveland OH 44109	7.85/hr / 8.15/hr	Team member / NEW OPPORTUNITY
Describe the Work You Did			

EDUCATION

	Name/Location	Last Year Completed	Degree	Major
High School	Roosevelt High School	9 10 11 (12)	H.S. Diploma	N/A
College/University		1 2 3 4		
Trade/Vocational				

GENERAL INFORMATION

Full Time or Part Time?   Full Time [Y]   Part Time [X]

If under 18, can you provide a valid work permit for employment?   Yes [ ]   No [ ]

If hired, can you verify that you have the legal right to work in the United States?   Yes [✓]   No [ ]

Have you been convicted of a felony?   Yes [X]   No [ ]

If so, please explain   Possession 2014

CERTIFICATION AND ACKNOWLEDGMENT

I certify that the information provided herein is true and correct to the best of my knowledge. I understand that, if employed, falsified statements on this Application for Employment form will be considered grounds for termination.

I authorize the company to thoroughly investigate my work experience and any other matters related to my suitability for employment. I further authorize my former employers to disclose to the company any and all information they may have concerning my previous employment. in addition, I hereby release the company, my former employers, and all other persons from any and all claims, demands, or liabilities arising out of, or in any way related to, such disclosure.

I acknowledge that, if employed, both the company and I have the right to terminate the employment relationship at any time, with or without cause or advance notice. This employment at will relationship will remain in effect throughout my employment with the company and may not be modified by any oral or implied agreement.

Applicant's Signature	Date
Jonathan Brown	8/28/2016

Comprehensive Background Report

DETAILS

CIS COMPLETE INVESTIGATION SERVICES
ONE STOP SOURCE FOR ALL YOUR INFORMATION NEEDS

Search Report - 8/14/2016 3:11 PM	Print Page 🖨

Search Criteria

Jonathan Brown STATE = AZ

Search Results

Name: Jonathan Brown

Address: 7916 Maple Avenue, Phoenix, AZ, USA

Possible Nicknames: John, Jon, Johnny

County: Maricopa

Phone: 303-555-0151

Date of Birth: 03-07-1994

Gender: Male

Marital Status: Single

Business Owner: No

Record ID: 93847023

Address Records

Address: 7916 Maple Avenue	**Verified Address:** Yes
City: Phoenix	**Dwelling Unit Size:** N/R
State: AZ	**Number of Units:** 12
Zip: 85039	**Homeowner/Renter:** Renter
County: Maricopa	**Length of Residence:** 1 year
Address: 934 Stark Road	**Verified Address:** Yes
City: Cleveland	**Dwelling Unit Size:** N/R
State: OH	**Number of Units:** 1
Zip: 44121	**Homeowner/Renter:** Renter
County: Cuyahoga County	**Length of Residence:** 2 years

Possible Court Records: from CRIMINAL (1)

Name	DOB	Case #	State	Details	Status
Jonathan Brown	03-07-1994	2014-A839	Ohio	Arrest — Possession of a Controlled Substance - Felony Offense	Convicted

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Print Page 🖨

Jonathan Brown

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Timeline   About   Friends   Photos   More ▾

DO YOU KNOW JONATHAN?

To see what he shares with friends, send him a friend request.   ⬇ Add Friend

📷 Photos

HUGS NOT DRUGS

Jonathan Brown
4 mins · ⊙ · 🌐

Haven't touched coke for 2 years now. Feels good to be clean, not high!

HUGS NOT DRUGS

↪ Share

CJ Edwards
August 12 · ⊙ · 🌐

It was good running into you the other day. Hope to see you again soon!

↪ Share

Jonathan Brown 🍴 eating lunch at 📍 McDonald's (711 W Indian School Rd, Phoenix).
July 23 · ⊙ · 🌐

STACK 'EM & DUNK 'EM 10 CHICKEN McNUGGETS

↪ Share

Jonathan Brown
July 4 · ⊙ · 🌐

Happy 4th of July! Have fun and be safe, everyone.

↪ Share