# The Mark of a Criminal Record[1]

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With over 2 million individuals currently incarcerated, and over half a million prisoners released each year, the large and growing number of men being processed through the criminal justice system raises important questions about the consequences of this massive institutional intervention. This article focuses on the consequences of incarceration for the employment outcomes of black and white job seekers. The present study adopts an experimental audit approach—in which matched pairs of individuals applied for real entry-level jobs—to formally test the degree to which a criminal record affects subsequent employment opportunities. The findings of this study reveal an important, and much underrecognized, mechanism of stratification. A criminal record presents a major barrier to employment, with important implications for racial disparities.

While stratification researchers typically focus on schools, labor markets, and the family as primary institutions affecting inequality, a new institution has emerged as central to the sorting and stratifying of young and disadvantaged men: the criminal justice system. With over 2 million individuals currently incarcerated, and over half a million prisoners released each year, the large and growing numbers of men being processed through the criminal justice system raises important questions about the consequences of this massive institutional intervention.

This article focuses on the consequences of incarceration for the em-

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ployment outcomes of black and white men. While previous survey research has demonstrated a strong *association* between incarceration and employment, there remains little understanding of the mechanisms by which these outcomes are produced. In the present study, I adopt an experimental audit approach to formally test the degree to which a criminal record affects subsequent employment opportunities. By using matched pairs of individuals to apply for real entry-level jobs, it becomes possible to directly measure the extent to which a criminal record—in the absence of other disqualifying characteristics—serves as a barrier to employment among equally qualified applicants. Further, by varying the race of the tester pairs, we can assess the ways in which the effects of race and criminal record interact to produce new forms of labor market inequalities.

## TRENDS IN INCARCERATION

Over the past three decades, the number of prison inmates in the United States has increased by more than 600%, leaving it the country with the highest incarceration rate in the world (Bureau of Justice Statistics 2002*a*; Barclay, Tavares, and Siddique 2001). During this time, incarceration has changed from a punishment reserved primarily for the most heinous offenders to one extended to a much greater range of crimes and a much larger segment of the population. Recent trends in crime policy have led to the imposition of harsher sentences for a wider range of offenses, thus casting an ever-widening net of penal intervention.[2]

While the recent "tough on crime" policies may be effective in getting criminals off the streets, little provision has been made for when they get back out. Of the nearly 2 million individuals currently incarcerated, roughly 95% will be released, with more than half a million being released each year (Slevin 2000). According to one estimate, there are currently over 12 million ex-felons in the United States, representing roughly 8% of the working-age population (Uggen, Thompson, and Manza 2000). Of those recently released, nearly two-thirds will be charged with new crimes and over 40% will return to prison within three years (Bureau of Justice Statistics 2000). Certainly some of these outcomes are the result of desolate opportunities or deeply ingrained dispositions, grown out of broken fam-

[2] For example, the recent adoption of mandatory sentencing laws, most often used for drug offenses, removes discretion from the sentencing judge to consider the range of factors pertaining to the individual and the offense that would normally be taken into account. As a result, the chances of receiving a state prison term after being arrested for a drug offense rose by 547% between 1980 and 1992 (Bureau of Justice Statistics 1995).

ilies, poor neighborhoods, and little social control (Sampson and Laub 1993; Wilson 1997). But net of these contributing factors, there is evidence that experience with the criminal justice system in itself has adverse consequences for subsequent opportunities. In particular, incarceration is associated with limited future employment opportunities and earnings potential (Freeman 1987; Western 2002), which themselves are among the strongest predictors of recidivism (Shover 1996; Sampson and Laub 1993; Uggen 2000).

The expansion of the prison population has been particularly consequential for blacks. The incarceration rate for young black men in the year 2000 was nearly 10%, compared to just over 1% for white men in the same age group (Bureau of Justice Statistics 2001). Young black men today have a 28% likelihood of incarceration during their lifetime (Bureau of Justice Statistics 1997), a figure that rises above 50% among young black high school dropouts (Pettit and Western 2001). These vast numbers of inmates translate into a large and increasing population of black ex-offenders returning to communities and searching for work. The barriers these men face in reaching economic self-sufficiency are compounded by the stigma of minority status and criminal record. The consequences of such trends for widening racial disparities are potentially profound (see Western and Pettit 1999; Freeman and Holzer 1986).

## PRIOR RESEARCH

While little research to date has focused on the consequences of criminal sanctions, a small and growing body of evidence suggests that contact with the criminal justice system can lead to a substantial reduction in economic opportunities. Using longitudinal survey data, researchers have studied the employment probabilities and income of individuals after release from prison and have found a strong and consistent negative effect of incarceration (Western and Beckett 1999; Freeman 1987; Nagin and Waldfogel 1993).

This existing research has been instrumental in demonstrating the possible aggregate effects of incarceration on labor market outcomes. Unfortunately, however, there are several fundamental limitations of survey data that leave the conclusions of this research vulnerable to harsh criticism. First, it is difficult, using survey data, to rule out the possibility that unmeasured differences between those who are and are not convicted of crimes may drive the observed results. Figure 1 presents one possible model of the relationship between incarceration and employment outcomes, with a direct causal link between the two. In this model, an individual acquires a criminal record, which then severely limits his later

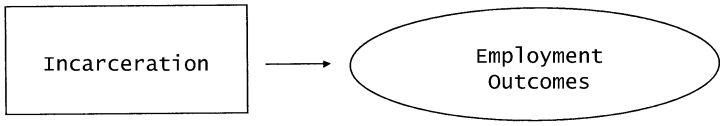



FIG. 1.—Model of direct causation

employment opportunities. But what evidence can we offer in support of this causal relationship? We know that the population of inmates is not a random sample of the overall population. What if, then, the poor outcomes of ex-offenders are merely the result of preexisting traits that make these men bad employees in the first place? Figure 2 presents a model of spurious association in which there is no direct link between incarceration and employment outcomes. Instead, there are direct links between various preexisting individual characteristics (e.g., drug and alcohol abuse, behavioral problems, poor interpersonal skills), which increase the likelihood of both incarceration and poor employment outcomes.[3] In this model, the association between incarceration and employment is entirely spurious—the result of individual predispositions toward deviance.

Consistent with figure 2, Kling (1999), Grogger (1995), and Needels (1996) have each argued that the effect of incarceration on employment is negligible, at an estimated 0%–4%. Using administrative data from unemployment insurance (UI) files matched with records from various state departments of corrections, these authors contend that the observed association is instead largely determined by unmeasured individual characteristics.[4] The findings of these authors stand in stark contrast to the majority of literature asserting a strong link between incarceration and employment (Western and Beckett 1999; Bushway 1998; Sampson and Laub 1993; Freeman 1987; Grogger 1992). While it remains an open question as to whether and to what extent incarceration causes employ-

[3] The variables listed here are just a few of the many potential sources of spuriousness that are virtually untestable using survey data.

[4] Studies using administrative data have the advantage of analyzing large samples of ex-offenders over extended periods of time, before and after incarceration. However, this line of research also suffers from several important limitations: First, employment and wage data from UI administrative records are available only for those jobs covered by and in compliance with unemployment insurance laws, thus excluding many temporary, contingent, or "grey-market" jobs, which may be more likely held by ex-offenders. Second, administrative data are typically limited to one state or jurisdiction; individuals who move to other states during the period of observation are thus mistakenly coded as unemployed or as zero-earners. And finally, missing social security numbers or difficulties in matching records often results in fairly substantial reduction in sample representativeness. See Kornfeld and Bloom (1999) for an in-depth discussion of these issues.

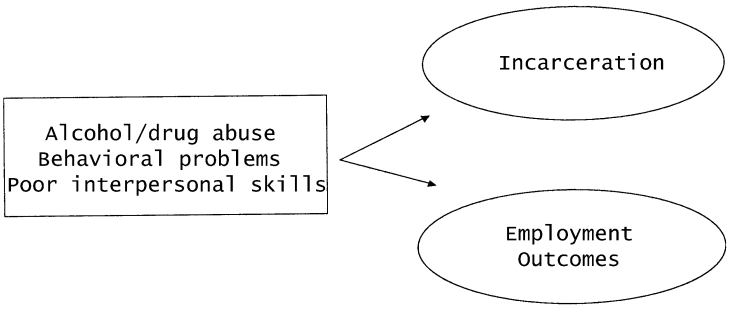



FIG. 2.—Model of spurious effects

ment difficulties, survey research is poorly equipped to offer a definitive answer. The Achilles heel of the survey methodology is its inability to escape from the glaring problems of selection that plague research in this field (see Winship and Morgan 1999; Rubin 1990; Heckman et al. 1998).[5]

A second, related limitation of survey research is its inability to formally identify mechanisms. From aggregate effects, we can infer plausible causal processes, but these are only indirectly supported by the data. Because numerous mechanisms could lead to the same set of outcomes, we are left unable to assess the substantive contribution of any given causal process. Survey researchers have offered numerous hypotheses regarding the mechanisms that may produce the observed relationship between incarceration and employment. These include the labeling effects of criminal stigma (Schwartz and Skolnick 1962), the disruption of social and familial ties (Sampson and Laub 1993), the influence on social networks (Hagan 1993), the loss of human capital (Becker 1975), institutional trauma (Parenti 1999), legal barriers to employment (Dale 1976), and, of course, the possibility that incarceration effects may be entirely spurious (Kling 1999; Grogger 1995; Needels 1996). Without direct measures of these variables, it is difficult, using survey data, to discern which, if any, of these causal explanations may be at work.

The uncertainty surrounding these mechanisms motivates the current project. Before addressing some of the larger consequences of incarcer-

[5] Researchers have employed creative techniques for addressing these issues, such as looking at pre- and postincarceration outcomes for the same individuals (e.g., Grogger 1992; Freeman 1991), comparing ex-offenders to future offenders (e.g., Waldfogel 1994; Grogger 1995), estimating fixed- and random-effects models (Western 2002), and using instrumental variables approaches to correct for unmeasured heterogeneity (e.g., Freeman 1994). There remains little consensus, however, over the degree to which these techniques effectively account for the problems of selection endemic to this type of research.

ation, it is essential to first establish conclusively the mechanism—or at least one of the mechanisms—driving these results. In the present study, I focus on the effect of a *criminal record* on employment opportunities. This emphasis directs our attention to the stigma associated with criminal justice intervention and to the ways in which employers respond to this stigma in considering applicants. While certainly there are additional ways in which incarceration may affect subsequent employment, this focus allows us to separate the institutional effect from the individual (or from the interaction of the two) and to directly assess one of the most widely discussed—but rarely measured—mechanisms of carceral channeling (Wacquant 2000). While incarceration may in fact additionally transform individuals (and/or their social ties) in ways that make them less suited to work, my interest here is in what might be termed the "credentialing" aspect of the criminal justice system. Those sent to prison are institutionally branded as a particular class of individuals—as are college graduates or welfare recipients—with implications for their perceived place in the stratification order. The "negative credential" associated with a criminal record represents a unique mechanism of stratification, in that it is the state that certifies particular individuals in ways that qualify them for discrimination or social exclusion.[6] It is this official status of the negative credential that differentiates it from other sources of social stigma, offering greater legitimacy to its use as the basis for differentiation. (See Pager [2002] for a more extensive discussion of negative credentials and their implications for stratification).

In order to investigate this question, I have chosen an experimental approach to the problem, a methodology best suited to isolating causal mechanisms. There have, in the past, been a limited number of studies that have adopted an experimental approach to the study of criminal stigma. These studies have relied on a "correspondence test" approach, whereby applications are submitted by mail with no in-person contact. The most notable in this line of research is a classic study by Schwartz and Skolnick (1962) in which the researchers prepared four sets of resumes to be sent to prospective employers, varying the criminal record of applicants. In each condition, employers were less likely to consider appli-

[6] Numerous opportunities become formally off-limits to individuals following a felony conviction, including (depending on the state of residence) access to public housing, voting rights, and employment in certain occupational sectors (e.g., health care occupations, public sector positions, child and elder care work). In addition, the widespread availability of criminal background information allows for the information to be further used as the basis for allocating opportunities not formally off-limits to ex-offenders, as studied here.

cants who had any prior contact with the criminal justice system.[7] Several later studies have verified these findings, varying the types of crimes committed by the hypothetical applicant (Finn and Fontaine 1985; Cohen and Nisbett 1997) or the national context (Boshier and Johnson 1974; Buikhuisen and Dijksterhuis 1971). Each of these studies reports the similar finding that, all else equal, contact with the criminal justice system leads to worse employment opportunities.

Unfortunately, the research design of Schwartz and Skolnick and others using this approach has several limitations. First, Schwartz and Skolnick's study, while clearly demonstrating the substantial effect of criminal stigma, is limited to one job type only (an unskilled hotel job). It remains uncertain how these effects generalize to the overall population of entry-level jobs. Ex-offenders face a diverse set of job openings, some of which may be more or less restricted to applicants with criminal records.

Second, correspondence tests are poorly equipped to address the issue of race. While it is possible to designate national origin using ethnic names (see, e.g., Riach and Rich 1991), it is much more difficult to clearly distinguish black and white applicants on paper.[8] Given the high rates of incarceration among blacks and the pervasive media images of black criminals, there is good reason to suspect that employers may respond differently to applicants with criminal records depending on their race (see discussion below). Prior research using correspondence tests to study the effect of criminal records, however, has not attempted to include race as a variable.

Finally, the type of application procedure used in correspondence tests—sending resumes by mail—is typically reserved for studies of administrative, clerical, and higher-level occupations. The types of job openings ex-offenders are most likely to apply for, by contrast, typically request in-person applications, and a mailed resume would therefore appear out of place.

The present study extends the work of Schwartz and Skolnick to include a more comprehensive assessment of the hiring process of ex-offenders across a full range of entry-level employment. By using an experimental audit design, this study effectively isolates the effect of a criminal record, while observing employer behavior in real-life employment settings. Fur-

[7] The four conditions included (1) an applicant who had been convicted and sentenced for assault, (2) an applicant who had been tried for assault but acquitted, (3) an applicant who had been tried for assault, acquitted, *and* had a letter from the judge certifying the applicant's acquittal and emphasizing the presumption of innocence, and (4) an applicant who had no criminal record. In all three criminal conditions—even with a letter from the judge—applicants were less likely to be considered by employers relative to the noncriminal control.

[8] For an excellent exception, see Bertrand and Mullainathan (2002).

ther, by using in-person application procedures, it becomes possible to simulate the process most often followed for entry-level positions, as well as to provide a more direct test of the effects of race on hiring outcomes.

## RESEARCH QUESTIONS

There are three primary questions I seek to address with the present study. First, in discussing the main effect of a criminal record, we need to ask whether and to what extent employers use information about criminal histories to make hiring decisions. Implicit in the criticism of survey research in this area is the assumption that the signal of a criminal record is not a determining factor. Rather, employers use information about the interactional styles of applicants, or other observed characteristics—which may be correlated with criminal records—and this explains the differential outcomes we observe. In this view, a criminal record does not represent a meaningful signal to employers on its own. This study formally tests the degree to which employers use information about criminal histories in the absence of corroborating evidence. It is essential that we conclusively document this effect before making larger claims about the aggregate consequences of incarceration.

Second, this study investigates the extent to which race continues to serve as a major barrier to employment. While race has undoubtedly played a central role in shaping the employment opportunities of African-Americans over the past century, recent arguments have questioned the continuing significance of race, arguing instead that other factors—such as spatial location, soft skills, social capital, or cognitive ability—can explain most or all of the contemporary racial differentials we observe (Wilson 1987; Moss and Tilly 1996; Loury 1977; Neal and Johnson 1996). This study provides a comparison of the experiences of equally qualified black and white applicants, allowing us to assess the extent to which direct racial discrimination persists in employment interactions.

The third objective of this study is to assess whether the effect of a criminal record differs for black and white applicants. Most research investigating the differential impact of incarceration on blacks has focused on the differential *rates* of incarceration and how those rates translate into widening racial disparities. In addition to disparities in the rate of incarceration, however, it is also important to consider possible racial differences in the *effects* of incarceration. Almost none of the existing literature to date has explored this issue, and the theoretical arguments remain divided as to what we might expect.

On one hand, there is reason to believe that the signal of a criminal record should be less consequential for blacks. Research on racial stere-

otypes tells us that Americans hold strong and persistent negative stereotypes about blacks, with one of the most readily invoked contemporary stereotypes relating to perceptions of violent and criminal dispositions (Smith 1991; Sniderman and Piazza 1993; Devine and Elliott 1995). If it is the case that employers view all blacks as potential criminals, they are likely to differentiate less among those with official criminal records and those without. Actual confirmation of criminal involvement then will provide only redundant information, while evidence against it will be discounted. In this case, the outcomes for all blacks should be worse, with less differentiation between those with criminal records and those without.

On the other hand, the effect of a criminal record may be worse for blacks if employers, already wary of black applicants, are more hesitant when it comes to taking risks on blacks with proven criminal tendencies. The literature on racial stereotypes also tells us that stereotypes are most likely to be activated and reinforced when a target matches on more than one dimension of the stereotype (Quillian and Pager 2002; Darley and Gross 1983; Fiske and Neuberg 1990). While employers may have learned to keep their racial attributions in check through years of heightened sensitivity around employment discrimination, when combined with knowledge of a criminal history, negative attributions are likely to intensify.

A third possibility, of course, is that a criminal record affects black and white applicants equally. The results of this audit study will help to adjudicate between these competing predictions.

## THE AUDIT METHODOLOGY

The method of audit studies was pioneered in the 1970s with a series of housing audits conducted by the Department of Housing and Urban Development (Wienk et al. 1979; Hakken 1979). Nearly 20 years later, this initial model was modified and applied to the employment context by researchers at the Urban Institute (Cross et al. 1990; Turner, Fix, and Struyk 1991). The basic design of an employment audit involves sending matched pairs of individuals (called testers) to apply for real job openings in order to see whether employers respond differently to applicants on the basis of selected characteristics.

The appeal of the audit methodology lies in its ability to combine experimental methods with real-life contexts. This combination allows for greater generalizability than a lab experiment and a better grasp of the causal mechanisms than what we can normally obtain from observational data. The audit methodology is particularly valuable for those with an interest in discrimination. Typically, researchers are forced to infer dis-

crimination indirectly, often attributing the residual from a statistical model—which is essentially all that is not directly explained—to discrimination. This convention is rather unsatisfying to researchers who seek empirical documentation for important social processes. The audit methodology therefore provides a valuable tool for this research.[9]

Audit studies have primarily been used to study those characteristics protected under Title VII of the Civil Rights Act, such as race, gender, and age (Ayres and Siegelman 1995; Cross et al. 1990; Turner et al. 1991; Bendick, Brown, and Wall 1999; Bendick 1999; Bendick, Jackson, and Reinoso 1994; Neumark 1996). The employment of ex-offenders, of course, has not traditionally been thought of as a civil rights issue, but with the rapid expansion of the criminal justice system over the past three decades, there has been heightened concern over the growing population of men with criminal records. Recognizing the increasing importance of this issue, several states (including Wisconsin) have passed legislation expanding the fair employment regulations to protect individuals with criminal records from discrimination by employers. Employers are cautioned that crimes may only be considered if they closely relate to the specific duties required of the job, however "shocking" the crime may have been. If anything, then, this study represents a strong test of the effect of a criminal record. We might expect the effect to be larger in states where no such legal protection is in place.[10]

## STUDY DESIGN

The basic design of this study involves the use of four male auditors (also called testers), two blacks and two whites. The testers were paired by race; that is, unlike in the original Urban Institute audit studies, the two black testers formed one team, and the two white testers formed the second

[9] While the findings from audit studies have produced some of the most convincing evidence of discrimination available from social science research, there are specific criticisms of this approach that warrant consideration. Heckman and Siegelman (1993) identify five major threats to the validity of results from audit studies: (1) problems in effective matching, (2) the use of "overqualified" testers, (3) limited sampling frame for the selection of firms and jobs to be audited, (4) experimenter effects, and (5) the ethics of audit research. For a useful discussion of these concerns, see the series of essays published in Fix and Struyk (1993). See also app. A below.

[10] Indeed, in a survey of employer attitudes, Holzer, Raphael, and Stoll (2002) found that Milwaukee employers were significantly more likely to consider hiring ex-offenders than were employers in Boston, Atlanta, Los Angeles, or Detroit, suggesting that Wisconsin may represent a best case scenario for the employment outcomes of ex-offenders relative to other major metropolitan areas (see also Holzer and Stoll 2001).

team (see fig. 3).[11] The testers were 23-year-old college students from Milwaukee who were matched on the basis of physical appearance and general style of self-presentation. Objective characteristics that were not already identical between pairs—such as educational attainment and work experience—were made similar for the purpose of the applications. Within each team, one auditor was randomly assigned a "criminal record" for the first week; the pair then rotated which member presented himself as the ex-offender for each successive week of employment searches, such that each tester served in the criminal record condition for an equal number of cases. By varying which member of the pair presented himself as having a criminal record, unobserved differences within the pairs of applicants were effectively controlled. No significant differences were found for the outcomes of individual testers or by month of testing.

Job openings for entry-level positions (defined as jobs requiring no previous experience and no education greater than high school) were identified from the Sunday classified advertisement section of the *Milwaukee Journal Sentinel*.[12] In addition, a supplemental sample was drawn from *Jobnet*, a state-sponsored web site for employment listings, which was developed in connection with the W-2 Welfare-to-Work initiatives.[13]

The audit pairs were randomly assigned 15 job openings each week. The white pair and the black pair were assigned separate sets of jobs, with the same-race testers applying to the same jobs. One member of the pair applied first, with the second applying one day later (randomly varying whether the ex-offender was first or second). A total of 350 employers were audited during the course of this study: 150 by the white pair and 200 by the black pair. Additional tests were performed by the black pair because black testers received fewer callbacks on average, and there were thus fewer data points with which to draw comparisons. A larger sample

[11] The primary goal of this study was to measure the effect of a criminal record, and thus it was important for this characteristic to be measured as a within-pair effect. While it would have been ideal for all four testers to have visited the same employers, this likely would have aroused suspicion. The testers were thus divided into separate teams by race and assigned to two randomly selected sets of employers.

[12] Occupations with legal restrictions on ex-offenders were excluded from the sample. These include jobs in the health care industry, work with children and the elderly, jobs requiring the handling of firearms (i.e., security guards), and jobs in the public sector. An estimate of the collateral consequences of incarceration would also need to take account of the wide range of employment formally off-limits to individuals with prior felony convictions.

[13] Employment services like *Jobnet* have become a much more common method of finding employment in recent years, particularly for difficult-to-employ populations such as welfare recipients and ex-offenders. Likewise, a recent survey by Holzer and Stoll (2001) found that nearly half of Milwaukee employers (46%) use *Jobnet* to advertise vacancies in their companies.

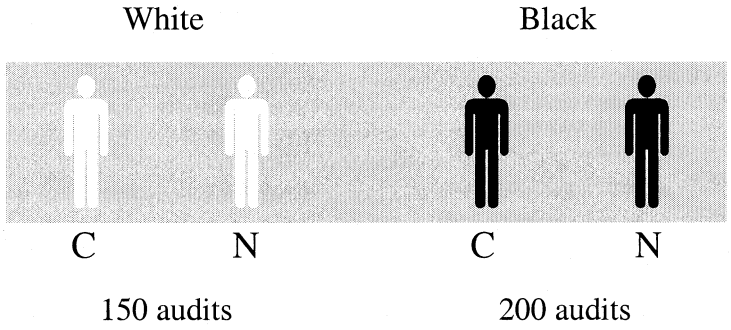



FIG. 3.—Audit design: "C" refers to criminal record; "N" refers to no criminal record

size enables me to calculate more precise estimates of the effects under investigation.

Immediately following the completion of each job application, testers filled out a six-page response form that coded relevant information from the test. Important variables included type of occupation, metropolitan status, wage, size of establishment, and race and sex of employer.[14] Additionally, testers wrote narratives describing the overall interaction and any comments made by employers (or included on applications) specifically related to race or criminal records.

One key feature of this audit study is that it focuses only on the first stage of the employment process. Testers visited employers, filled out applications, and proceeded as far as they could during the course of one visit. If testers were asked to interview on the spot, they did so, but they did not return to the employer for a second visit. The primary dependent variable, then, is the proportion of applications that elicited callbacks from employers. Individual voicemail boxes were set up for each tester to record employer responses. If a tester was offered the job on the spot, this was also coded as a positive response.[15] The reason I chose to focus only on this initial stage of the employment process is because this is the stage likely to be most affected by the barrier of a criminal record. In an audit study of age discrimination, for example, Bendick et al. (1999) found that 76% of the measured differential treatment occurred at this initial stage of the employment process. Given that a criminal record, like age,

[14] See Pager (2002) for a discussion of the variation across each of these dimensions.

[15] In cases where testers were offered jobs on the spot, they were instructed to tell the employer that they were still waiting to hear back from another job they had interviewed for earlier. The tester then called the employer back at the end of the same day to let him or her know that the other job had come through and he was therefore no longer available.

is a highly salient characteristic, it is likely that as much, if not more, of the treatment effect will be detected at this stage.

## TESTER PROFILES

In developing the tester profiles, emphasis was placed on adopting characteristics that were both numerically representative and substantively important. In the present study, the criminal record consisted of a felony drug conviction (possession with intent to distribute, cocaine) and 18 months of (served) prison time. A drug crime (as opposed to a violent or property crime) was chosen because of its prevalence, its policy salience, and its connection to racial disparities in incarceration.[16] It is important to acknowledge that the effects reported here may differ depending on the type of offense.[17]

In assigning the educational and work history of testers, I sought a compromise between representing the modal group of offenders, while also providing some room for variation in the outcome of the audits. Most audit studies of employment have created tester profiles that include some college experience, so that testers will be highly competitive applicants for entry-level jobs and so that the contrast between treatment and control group is made clear (see app. B in Cross et al. 1989). In the present study, however, postsecondary schooling experience would detract from the representativeness of the results. More than 70% of federal and nearly 90% of state prisoners have no more than a high school degree (or equivalent).

[16] Over the past two decades, drug crimes were the fastest growing class of offenses. In 1980, roughly one out of every 16 state inmates was incarcerated for a drug crime; by 1999, this figure had jumped to one out of every five (Bureau of Justice Statistics 2000). In federal prisons, nearly three out of every five inmates are incarcerated for a drug crime (Bureau of Justice Statistics 2001). A significant portion of this increase can be attributed to changing policies concerning drug enforcement. By 2000, every state in the country had adopted some form of truth in sentencing laws, which impose mandatory sentencing minimums for a range of offenses. These laws have been applied most frequently to drug crimes, leading to more than a fivefold rise in the number of drug arrests that result in incarceration and a doubling of the average length of sentences for drug convictions (Mauer 1999; Blumstein and Beck 1999). While the steep rise in drug enforcement has been felt across the population, this "war on drugs" has had a disproportionate impact on African-Americans. Between 1990 and 1997, the number of black inmates serving time for drug offenses increased by 60%, compared to a 46% increase in the number of whites (Bureau of Justice Statistics 1995). In 1999, 26% of all black state inmates were incarcerated for drug offenses, relative to less than half that proportion of whites (Bureau of Justice Statistics 2001).

[17] Survey results indicate that employers are substantially more averse to applicants convicted of violent crimes or property crimes relative to those convicted of drug crimes (Holzer et al. 2002; Pager 2002).

The education level of testers in this study, therefore, was chosen to represent the modal category of offenders (high school diploma).[18]

There is little systematic evidence concerning the work histories of inmates prior to incarceration. Overall, 77.4% of federal and 67.4% of state inmates were employed prior to incarceration (Bureau of Justice Statistics 1994). There is, however, a substantial degree of heterogeneity in the quality and consistency of work experience during this time (Pager 2001). In the present study, testers were assigned favorable work histories in that they report steady work experience in entry-level jobs and nearly continual employment (until incarceration). In the job prior to incarceration (and, for the control group, prior to the last short-term job), testers report having worked their way from an entry-level position to a supervisory role.[19]

## DESIGN ISSUES

There are a number of complexities involved in the design and implementation of an audit study.[20] Apart from the standard complications of carrying out a field experiment, there were several specific dilemmas posed in the development of the current study that required substantial deliberation. First, in standard audit studies of race or gender, it is possible to construct work histories for test partners in such a way that the amount of work experience reported by each tester is identical. By contrast, the present study compares the outcome of one applicant who has spent 18 months in prison. It was therefore necessary to manipulate the work histories of both applicants so that this labor market absence did not bias the results.[21] The solution opted for here was for the ex-offender to report six months of work experience gained while in prison (preceded by 12

[18] In 1991, 49% of federal and 46.5% of state inmates had a high school degree (or equivalent; Bureau of Justice Statistics 1994).

[19] Testers reported working either as an assistant manager at a national restaurant chain or as a supervisor at a national home retail store. While it is unlikely that the modal occupational attainment for high school graduates (with or without criminal records) would be a supervisory position, this feature was added to the tester profiles in order to make them more competitive applicants. The solid job histories of these applicants should affect the results in a conservative direction, offering cues about the tester's reliability and competence, which may offset some of the negative associations with a criminal background.

[20] See app. A for a discussion of additional methodological concerns.

[21] Though time out of the labor market is in fact one component of the total impact of incarceration, this study sought to isolate the effect of criminal stigma from other potential consequences of incarceration. Again, an estimate of the total effect of incarceration would also need to take account of employment difficulties resulting from a prolonged labor market absence.

months out of the labor force, representing the remainder of the total prison time). The nonoffender, on the other hand, reported graduating from high school one year later (thereby accounting for 12 months) and, concurrent to his partner's six months of prison work time, worked for a temporary agency doing a similar kind of low-skill work. Thus, the actual amount of work experience was equivalent for both testers. The effect of having the noncriminal graduate from high school one year later should impose a conservative bias, as graduating from high school late may indicate less motivation or ability.

A second major difference between audit studies of race or gender and the present study is that criminal status is not something that can be immediately discerned by the employer. The information had to be explicitly conveyed, therefore, in order for the interaction to become a "test." In most cases, the tester was given the opportunity to communicate the necessary information on the application form provided, in answer to the question "Have you ever been convicted of a crime?"[22] However, in the 26% of cases where the application form did not include a question about criminal history, it was necessary to provide an alternate means of conveying this information. In the present study, testers provided two indirect sources of information about their prior criminal involvement. First, as mentioned above, the tester in the criminal record condition reported work experience obtained while in the correctional facility. Second, the tester listed his parole officer as a reference (calls to whom were recorded by voicemail). These two pieces of evidence provided explicit clues to employers that the applicant had spent time in prison; and both of these strategies are used by real ex-offenders who seek to account for empty time by reporting work experience in prison or who wish to have their parole officer vouch for their successful rehabilitation.[23] Pilot tests with employers in a neighboring city suggested that this strategy was an effective means of conveying the criminal record condition without arousing suspicion.

## STUDY CONTEXT AND DESCRIPTIVES

The fieldwork for this project took place in Milwaukee between June and December of 2001. During this time, the economic condition of the met-

[22] To the extent that real ex-offenders lie about their criminal record on application forms, this approach may lead to an overestimate of the effect of a criminal record. See app. A for a discussion of this issue.

[23] This approach was developed in discussion with several Milwaukee employment counselors and parole officers and is based on a composite profile of resumes belonging to real ex-offenders.

ropolitan area remained moderately strong, with unemployment rates ranging from a high of 5.2% in June to a low of 4% in September.[24] It is important to note that the results of this study are specific to the economic conditions of this period. It has been well-documented in previous research that the level of employment discrimination corresponds closely with the tightness of the labor market (Freeman and Rodgers 1999). Certainly the economic climate was a salient factor in the minds of these employers. During a pilot interview, for example, an employer reported that a year ago she would have had three applications for an entry-level opening; today she gets 150.[25] Another employer for a janitorial service mentioned that previously their company had been so short of staff that they had to interview virtually everyone who applied. The current conditions, by contrast, allowed them to be far more selective. Since the completion of this study, the unemployment rate has continued to rise. It is likely, therefore, that the effects reported here may understate the impact of race and a criminal record in the context of an economic recession.

As mentioned earlier, the job openings for this study were selected from the Sunday classified section of the *Milwaukee Journal Sentinel* and from *Jobnet*, a state-sponsored Internet job service. All job openings within a 25-mile radius of downtown Milwaukee were included, with 61% of the resulting sample located in the suburbs or surrounding counties, relative to only 39% in the city of Milwaukee. Because a limited boundary was covered by this project, the distribution of jobs does not accurately represent the extent to which job growth has been concentrated in wider suburban areas. According to a recent study of job growth in Milwaukee, nearly 90% of entry-level job openings were located in the outlying counties and the Milwaukee county suburbs, with only 4% of full-time openings located in the central city (Pawasarat and Quinn 2000).

The average distance from downtown in the present sample was 12 miles, with a substantial number of job openings located far from reach by public transportation. Again, testers in this study represented a best case scenario: all testers had their own reliable transportation, allowing them access to a wide range of employment opportunities. For the average entry-level job seeker, by contrast, the suburbanization of low wage work can in itself represent a major barrier to employment (Wilson 1997).

[24] Monthly unemployment rates followed a U-shaped pattern, with higher levels of unemployment in the first and last months of the study. Specifically: June (5.4%), July (5.2%), August (4.8%), September (4.4%), October (4.7%), November (4.9%), December (4.5%). National unemployment rates were nearly a point lower in June (4.6%), but rose above Milwaukee's unemployment rate to a high of 5.8% in December (Bureau of Labor Statistics 2002).

[25] The unemployment rate in Milwaukee had been as low as 2.7% in September of 1999 (Bureau of Labor Statistics 2002).

Similar to other metropolitan labor markets, the service industry has been the fastest growing sector in Milwaukee, followed by retail and wholesale trade, and manufacturing (Pawasarat and Quinn 2000). Likewise, the sample of jobs in this study reflects similar concentrations, though quite a range of job titles were included overall (table 1).

The most common job types were for restaurant workers (18%), laborers or warehouse workers (17%), and production workers or operators (12%). Though white collar positions were less common among the entry-level listings, a fair number of customer service (11%), sales (11%), clerical (5%), and even a handful of managerial positions (2%) were included.[26]

Figure 4 presents some information on the ways employers obtain background information on applicants.[27] In this sample, roughly 75% of employers asked explicit questions on their application forms about the applicant's criminal history. Generally this was a standard question, "Have you ever been convicted of a crime? If yes, please explain."[28] Even though in most cases employers are not allowed to use criminal background information to make hiring decisions, a vast majority of employers nevertheless request the information.

A much smaller proportion of employers actually perform an official background check. In my sample, 27% of employers indicated that they would perform a background check on all applicants.[29] This figure likely represents a lower-bound estimate, given that employers are not required to disclose their intentions to do background checks. According to a national survey by Holzer (1996), 30%–40% of employers perform official background checks on applicants for noncollege jobs. The point remains,

[26] As noted above, this sample excludes health care workers—which represented the largest category of entry-level job openings—and other occupations with legal restrictions on ex-felons (see app. A).

[27] These are nonexclusive categories and are thus not meant to sum to 100.

[28] An overwhelming proportion of employers used generic questions about criminal backgrounds (with the only major source of variation stemming from an emphasis on all prior convictions vs. felonies only). A handful of large national companies, however, used questions that reflected a more nuanced understanding of the law. One company, e.g., instructed applicants *not* to answer the question if they were a resident of certain specified states; another asked only about prior convictions for theft and burglary, ignoring all other possible offenses.

[29] The issue of official background checks raises some concern as to the validity of the experimental condition, given that the information provided by testers can be (dis)confirmed on the basis of other sources of information available to employers. In cases where employers in this study did perform background checks on testers, the check would come back clean (none of the testers in this study actually had criminal records). It is my expectation that because employers would not expect someone to lie about *having* a criminal record, and because employers know that criminal history databases are fraught with errors, they would be inclined to believe the worst case scenario—in this case, the self-report.

TABLE 1
Occupational Distribution

| Job Title | % |
|---|---|
| Waitstaff | 18 |
| Laborer/warehouse | 17 |
| Production/operators | 12 |
| Service | 11 |
| Sales | 11 |
| Delivery driver | 9 |
| Cashier | 7 |
| Cook/kitchen staff | 5 |
| Clerical | 5 |
| Managerial | 2 |

Note.—An excluded "other" category combines the remaining 3% of job titles.

however, that fewer than half of all employers check criminal background information through official sources.[30]

Finally, reference checks were included as an outcome in this study with the belief that, for applicants with criminal records, having former employers or a parole officer willing to vouch for the reliability and competence of the individual would be critical. Additional voicemail boxes were set up for references, such that each application could provide numbers for two functioning references. As it turns out, however, employers seemed to pay virtually no attention to references whatsoever. Over the course of the 350 audits completed, only four separate employers checked references.[31] Employers would frequently tell testers, "I'll just check your references and then give you a call," or leave messages saying, "I'm going to call your references, and then I'd like you to come in for a training [session]," and yet no calls were registered.[32]

This finding emphasizes the point that employers do not go out of their way to solicit nuanced information about applicants for entry-level jobs. Rather, it is up to the applicant to convey the important information on

[30] There is some indication that the frequency of criminal background checks has increased since September 11, 2001. First Response Security, Inc., for example, saw a 25% increase in employers conducting background checks since that time (see http://www.maine.rr.com/Around_Town/features2001/jobsinme/11_01/default.asp [last accessed March 1, 2003]).

[31] Two additional employers made calls to the number listed for the parole officer on the testers' applications. These calls, however, were not for the purpose of obtaining additional background information about the candidate. Rather, in both cases, employers had made several calls to the tester about the job opening and, reaching only his voicemail, were thus looking for an alternative way to track down the applicant.

[32] The voicemail system was set up in such a way that even hang-ups could be detected.

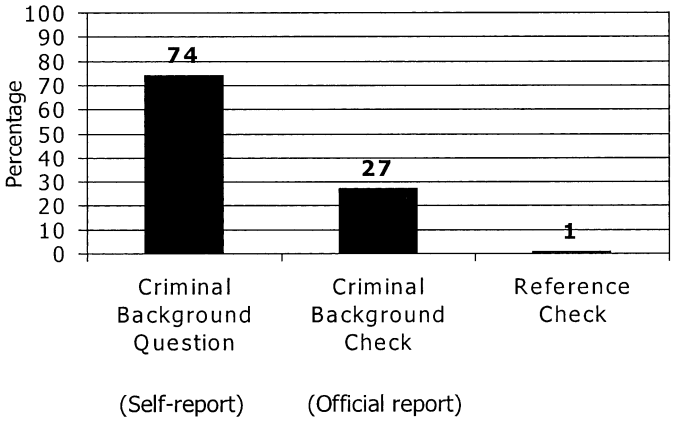



FIG. 4.—Background checks

the written application or during a brief interview. It is possible that a larger number of employers do check references at a later stage of the employment process (see Pager 2002). By this point, however, the ex-offender has already likely been weeded out of the pool under consideration.

The question now becomes, To what extent are applicants with criminal records weeded out of the process at this initial stage? To answer this question, I turn to the results of the audit study.

## THE EFFECT OF A CRIMINAL RECORD FOR WHITES

I begin with an analysis of the effect of a criminal record among whites. White noncriminals can serve as our baseline in the following comparisons, representing the presumptively nonstigmatized group relative to blacks and those with criminal records. Given that all testers presented roughly identical credentials, the differences experienced among groups of testers can be attributed fully to the effects of race or criminal status.

Figure 5 shows the percentage of applications submitted by white testers that elicited callbacks from employers, by criminal status. As illustrated below, there is a large and significant effect of a criminal record, with 34% of whites without criminal records receiving callbacks, relative to only 17% of whites with criminal records. A criminal record thereby reduces the likelihood of a callback by 50% (see app. B for coefficients from the logistic regression model).

There were some fairly obvious examples documented by testers that illustrate the strong reaction among employers to the signal of a criminal

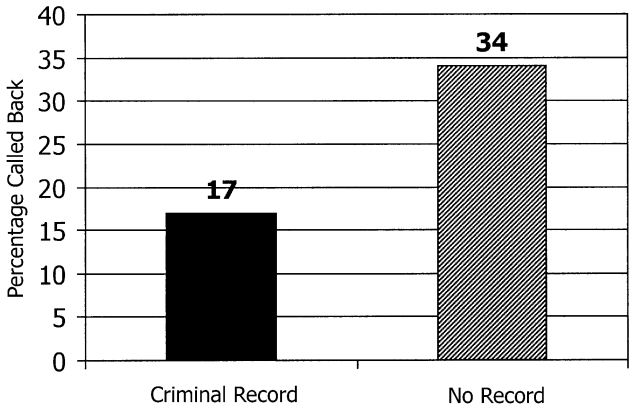



FIG. 5.—The effect of a criminal record on employment opportunities for whites. The effect of a criminal record is statistically significant ($P < .01$).

record. In one case, a white tester in the criminal record condition went to a trucking service to apply for a job as a dispatcher. The tester was given a long application, including a complex math test, which took nearly 45 minutes to fill out. During the course of this process, there were several details about the application and the job that needed clarification, some of which involved checking with the supervisor about how to proceed. No concerns were raised about his candidacy at this stage. When the tester turned the application in, the secretary brought it into a back office for the supervisor to look over, so that an interview could perhaps be conducted. When the secretary came back out, presumably after the supervisor had a chance to look over the application more thoroughly, he was told the position had already been filled. While, of course, isolated incidents like this are not conclusive, this was not an infrequent occurrence. Often testers reported seeing employers' levels of responsiveness change dramatically once they had glanced down at the criminal record question.

Clearly, the results here demonstrate that criminal records close doors in employment situations. Many employers seem to use the information as a screening mechanism, without attempting to probe deeper into the possible context or complexities of the situation. As we can see here, in 50% of cases, employers were unwilling to consider equally qualified applicants on the basis of their criminal record.

Of course, this trend is not true among all employers, in all situations. There were, in fact, some employers who seemed to prefer workers who had been recently released from prison. One owner told a white tester in the criminal record condition that he "like[d] hiring people who ha[d] just

come out of prison because they tend to be more motivated, and are more likely to be hard workers [not wanting to return to prison]." Another employer for a cleaning company attempted to dissuade the white noncriminal tester from applying because the job involved "a great deal of dirty work." The tester with the criminal record, on the other hand, was offered the job on the spot. A criminal record is thus not an obstacle in all cases, but on average, as we see above, it reduces employment opportunities substantially.

## THE EFFECT OF RACE

A second major focus of this study concerns the effect of race. African-Americans continue to suffer from lower rates of employment relative to whites, but there is tremendous disagreement over the source of these disparities. The idea that race itself—apart from other correlated characteristics—continues to play a major role in shaping employment opportunities has come under question in recent years (e.g., D'Souza 1995; Steele 1991). The audit methodology is uniquely suited to address this question. While the present study design does not provide the kind of cross-race matched-pair tests that earlier audit studies of racial discrimination have used, the between-group comparisons (white pair vs. black pair) can nevertheless offer an unbiased estimate of the effect of race on employment opportunities.[33]

Figure 6 presents the percentage of callbacks received for both categories of black testers relative to those for whites. The effect of race in these findings is strikingly large. Among blacks without criminal records, only 14% received callbacks, relative to 34% of white noncriminals ($P <$

[33] Between-pair comparisons provide less efficient estimators, but they are nevertheless unbiased, provided that there are no systematic differences between the sample of jobs assigned to each pair or between the observed characteristics of the black and white pair (apart from race). In this study, jobs were randomly assigned to tester pairs such that no systematic differences should be observed between samples. Of course, it is impossible, even in an experimental design, to rule out the possibility that unmeasured differences between the black testers and the white testers systematically bias the results (see Heckman and Siegelman 1993). This problem is one of the key limitations of the audit design. In the present study, several attempts were made to minimize this source of bias: first, testers were chosen based on similar physical and dispositional characteristics to minimize differences from the outset; second, testers participated in an extensive training (including numerous role plays) in which they learned to approach employers in similar ways; third, testers used identical sets of resumes to ensure their comparability on objective dimensions; and finally, the fact that this study tests only the first stage of the employment process means that testers had little opportunity to engage in the kind of extensive interaction that might elicit systematic differences in treatment (based on factors other than race).

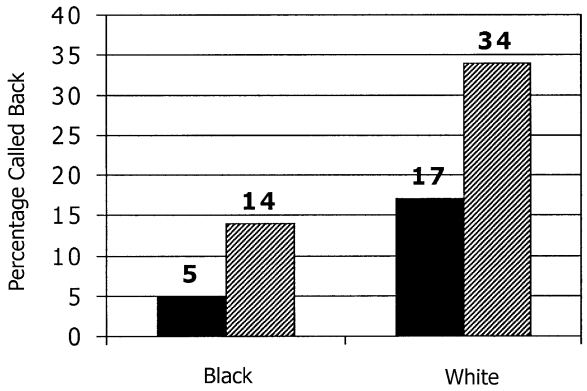



FIG. 6.—The effect of a criminal record for black and white job applicants. The main effects of race and criminal record are statically significant ($P < .01$). The interaction between the two is not significant in the full sample. Black bars represent criminal record; striped bars represent no criminal record.

.01). In fact, even whites *with* criminal records received more favorable treatment (17%) than blacks *without* criminal records (14%).[34] The rank ordering of groups in this graph is painfully revealing of employer preferences: race continues to play a dominant role in shaping employment opportunities, equal to or greater than the impact of a criminal record.

The magnitude of the race effect found here corresponds closely to those found in previous audit studies directly measuring racial discrimination. Bendick et al. (1994), for example, find that blacks were 24 percentage points less likely to receive a job offer relative to their white counterparts, a finding very close to the 20 percentage point difference (between white and black nonoffenders) found here.[35] Thus in the eight years since the last major employment audit of race was conducted, very

[34] This difference is not significantly different from zero. Given, however, that we would expect black noncriminals to be *favored* (rather than equal) relative to criminals of any race, the relevant null hypothesis should be positive rather than zero, thus generating an even larger contrast.

[35] Here, I am relying on percentage point differences in order to compare equivalent measures across studies. As I discuss below, however, I find it useful to rather calculate relative differences (ratio tests) when comparing the magnitude of an effect across two groups with different baseline rates. Unfortunately, the Bendick et al. (1994) study does not include the raw numbers in its results, and it is thus not possible to calculate comparative ratios in this case. Note also that the Bendick et al. (1994) study included an assessment of the full hiring process, from application to job offer. The fact that the racial disparities reported here (at the first stage of the employment process) closely mirror those from more comprehensive studies provides further reassurance that this design is capturing a majority of the discrimination that takes place in the hiring process.

little has changed in the reaction of employers to minority applicants. Despite the many rhetorical arguments used to suggest that direct racial discrimination is no longer a major barrier to opportunity (e.g., D'Souza 1995; Steele 1991), as we can see here, employers, at least in Milwaukee, continue to use race as a major factor in hiring decisions.

## RACIAL DIFFERENCES IN THE EFFECTS OF A CRIMINAL RECORD

The final question this study sought to answer was the degree to which the effect of a criminal record differs depending on the race of the applicant. Based on the results presented in figure 6, the effect of a criminal record appears more pronounced for blacks than it is for whites. While this interaction term is not statistically significant, the magnitude of the difference is nontrivial.[36] While the ratio of callbacks for nonoffenders relative to ex-offenders for whites is 2:1, this same ratio for blacks is nearly 3:1.[37] The effect of a criminal record is thus 40% larger for blacks than for whites.

This evidence is suggestive of the way in which associations between race and crime affect interpersonal evaluations. Employers, already reluctant to hire blacks, appear even more wary of blacks with proven criminal involvement. Despite the face that these testers were bright articulate college students with effective styles of self-presentation, the cursory review of entry-level applicants leaves little room for these qualities to be noticed. Instead, the employment barriers of minority status and criminal record are compounded, intensifying the stigma toward this group.

The salience of employers' sensitivity toward criminal involvement among blacks was highlighted in several interactions documented by testers. On three separate occasions, for example, black testers were asked in person (before submitting their applications) whether they had a prior

[36] This interaction between race and criminal record becomes significant when estimated among particular subsamples (namely, suburban employers and employers with whom the testers had personal contact). See Pager (2002) for a discussion of these results.

[37] Previous audit studies, focusing on one comparison only, have often relied on net differences in percentages as the primary measure of discrimination. Extending this approach to the present design, it would likewise be possible to compare the percentage point difference in treatment among white nonoffenders relative to offenders and that of blacks (a difference in differences approach). Given that the baseline rate of callbacks is substantially different for blacks and whites, however, this measure would be misleading. In an absolute sense, whites have greater opportunity overall and thus have more to lose. Taking into account this differential baseline, we see that the *relative* effect of a criminal record is in fact smaller among whites than it is among blacks.

criminal history. None of the white testers were asked about their criminal histories up front.

The strong association between race and crime in the minds of employers provides some indication that the "true effect" of a criminal record for blacks may be even larger than what is measured here. If, for example, the outcomes for black testers *without* criminal records were deflated in part because employers feared that they may nevertheless have criminal tendencies, then the contrast between blacks with and without criminal records would be suppressed. Evidence for this type of statistical discrimination can be found in the work of Bushway (1997) and Holzer, Raphael, and Stoll (2001).

## DISCUSSION

There is serious disagreement among academics, policy makers, and practitioners over the extent to which contact with the criminal justice system—in itself—leads to harmful consequences for employment. The present study takes a strong stand in this debate by offering direct evidence of the causal relationship between a criminal record and employment outcomes. While survey research has produced noisy and indirect estimates of this effect, the current research design offers a direct measure of a criminal record as a mechanism producing employment disparities. Using matched pairs and an experimentally assigned criminal record, this estimate is unaffected by the problems of selection, which plague observational data. While certainly there are additional ways in which incarceration may affect employment outcomes, this finding provides conclusive evidence that mere contact with the criminal justice system, in the absence of any transformative or selective effects, severely limits subsequent employment opportunities. And while the audit study investigates employment barriers to ex-offenders from a microperspective, the implications are far-reaching. The finding that ex-offenders are only one-half to one-third as likely as nonoffenders to be considered by employers suggests that a criminal record indeed presents a major barrier to employment. With over 2 million people currently behind bars and over 12 million people with prior felony convictions, the consequences for labor market inequalities are potentially profound.

Second, the persistent effect of race on employment opportunities is painfully clear in these results. Blacks are less than half as likely to receive consideration by employers, relative to their white counterparts, and black nonoffenders fall behind even whites with prior felony convictions. The powerful effects of race thus continue to direct employment decisions in ways that contribute to persisting racial inequality. In light of these find-

ings, current public opinion seems largely misinformed. According to a recent survey of residents in Los Angeles, Boston, Detroit, and Atlanta, researchers found that just over a quarter of whites believe there to be "a lot" of discrimination against blacks, compared to nearly two-thirds of black respondents (Kluegel and Bobo 2001). Over the past decade, affirmative action has come under attack across the country based on the argument that direct racial discrimination is no longer a major barrier to opportunity.[38] According to this study, however, employers, at least in Milwaukee, continue to use race as a major factor in their hiring decisions. When we combine the effects of race and criminal record, the problem grows more intense. Not only are blacks much more likely to be incarcerated than whites; based on the findings presented here, they may also be more strongly affected by the impact of a criminal record. Previous estimates of the aggregate consequences of incarceration may therefore underestimate the impact on racial disparities.

Finally, in terms of policy implications, this research has troubling conclusions. In our frenzy of locking people up, our "crime control" policies may in fact exacerbate the very conditions that lead to crime in the first place. Research consistently shows that finding quality steady employment is one of the strongest predictors of desistance from crime (Shover 1996; Sampson and Laub 1993; Uggen 2000). The fact that a criminal record severely limits employment opportunities—particularly among blacks—suggests that these individuals are left with few viable alternatives.[39]

As more and more young men enter the labor force from prison, it

[38] In November 1996, California voters supported Proposition 209, which outlawed affirmative action in public employment, education, and contracting. In the same year, the Fifth Circuit Court of Appeals suspended affirmative action in Texas in the case of *Hopwood vs. University of Texas Law School.*

[39] There are two primary policy recommendations implied by these results. First and foremost, the widespread use of incarceration, particularly for nonviolent drug crimes, has serious, long-term consequences for the employment problems of young men. The substitution of alternatives to incarceration, therefore, such as drug treatment programs or community supervision, may serve to better promote the well-being of individual offenders as well as to improve public safety more generally through the potential reduction of recidivism. Second, additional thought should be given to the widespread availability of criminal background information. As criminal record databases become increasingly easy to access, this information may be more often used as the basis for rejecting otherwise qualified applicants. If instead criminal history information were suppressed—except in cases that were clearly relevant to a particular kind of job assignment—ex-offenders with appropriate credentials might be better able to secure legitimate employment. While there is some indication that the absence of official criminal background information may lead to a greater incidence of statistical discrimination against blacks (see Bushway 1997; Holzer et al. 2001), the net benefits of this policy change may in fact outweigh the potential drawbacks.

becomes increasingly important to consider the impact of incarceration on the job prospects of those coming out. No longer a peripheral institution, the criminal justice system has become a dominant presence in the lives of young disadvantaged men, playing a key role in the sorting and stratifying of labor market opportunities. This article represents an initial attempt to specify one of the important mechanisms by which incarceration leads to poor employment outcomes. Future research is needed to expand this emphasis to other mechanisms (e.g., the transformative effects of prison on human and social capital), as well as to include other social domains affected by incarceration (e.g., housing, family formation, political participation, etc.);[40] in this way, we can move toward a more complete understanding of the collateral consequences of incarceration for social inequality.

At this point in history, it is impossible to tell whether the massive presence of incarceration in today's stratification system represents a unique anomaly of the late 20th century, or part of a larger movement toward a system of stratification based on the official certification of individual character and competence. Whether this process of negative credentialing will continue to form the basis of emerging social cleavages remains to be seen.

## APPENDIX A

### Methodological Concerns

Below I discuss some of the limitations of the audit methodology and ways in which findings from an experimental design may conflict with real-life contexts.

#### *Limits to Generalizability*

*Reporting criminal backgrounds*.—In the present study, testers in the criminal record condition were instructed to provide an affirmative answer to any question about criminal background posed on the application form or in person. Employers are thus given full information about the (fictional) criminal record of this applicant. But how often do real ex-offenders offer such complete and honest information? To the extent that ex-offenders lie about their criminal background in employment settings, the results of this study may overestimate the effect of having a criminal record. If employers do not know about an applicant's criminal record, then surely it can have no influence on their hiring decisions.

[40] For promising work in these areas, see Uggen and Manza (2002), Western and McLanahan (2000), and Travis, Solomon, and Waul (2001).

Before starting this project, I conducted a number of interviews with parolees and men with criminal records. When asked how they handled application forms, the majority of these men claimed to report their criminal record up front. There are a number of reasons motivating this seemingly irrational behavior. First, most men with criminal records believe that the chances of being caught by a criminal background check are much higher than they actually are. While a majority of employers do not perform background checks on all applicants, there is the perception that this practice is widespread. Second, most men coming out of prison have a parole officer monitoring their reintegration. One of the most effective mechanisms of surveillance for parole officers is to call employers to make sure their parolees have been showing up for work. If the individual has not reported his criminal history, therefore, it may soon be revealed.[41] There is thus a strong incentive for parolees to be up front in their reporting.

A second source of information on this issue comes from interviews with employers. In a second stage of this project, the same sample of employers were interviewed about their hiring practices and experiences (see Pager 2002). During these conversations, the employers were asked to report what percentage of applicants over the past year had reported a prior conviction and, among those employers who performed official criminal background checks, what percentage were found to have criminal records. According to the employers, roughly 12% of applicants over the past year reported having a prior record on their application form. Of those employers who perform official background checks, an average of 14% of applicants were found to have criminal records. The disparity between self-reports and official records, therefore, is a minimal 2%. In fact, one manager of a national restaurant chain mentioned that sometimes applicants report *more* information than they need to. While the question on the application form only asked about felony convictions over the past year, this employer revealed that some applicants report misdemeanors or felony convictions from several years back. Whatever the reason, there seems to be evidence that far more ex-offenders report their prior convictions than "rational actor" models might predict. While surely some ex-offenders do lie on their applications, there is reason to believe this is far from the norm.

A related issue of study design concerns the reporting of criminal background information even when not solicited by the employer. Recall that roughly one-quarter of employers did not ask explicit questions on their

[41] This is particularly consequential for employees in states such as Wisconsin, where employers are not allowed to fire someone for *having* a criminal record, but they are allowed to fire him for *lying* about his record.

application forms about an applicant's criminal history. In order to make sure the experimental condition was known to all employers, testers also reported work experience in the correctional facility and listed their parole officers as references. While this strategy was based on a composite profile of a number of real ex-offenders, in no way does it represent a modal application procedure. In most cases, if employers do not ask about (or check) criminal histories, they will never know. It is possible that in conveying the information artificially, the level of measured discrimination is inflated. To address this concern, a direct test is possible. Figure A1 presents the callback rate for employers who did and did not solicit information about prior convictions.[42]

As is clear from this graph, employers who did not solicit information about criminal histories were much less likely to use the information in their hiring decisions. The disparity in treatment of ex-offenders relative to nonoffenders among employers who did request the information (12% vs. 35%) is more than twice as large as that among employers who did not ask (25% vs. 33%). In terms of its correspondence to the "real world," therefore, providing unsolicited information about criminal backgrounds did little to affect employer responses.

*Representativeness of testers*.—The testers in this study were bright, articulate college students with effective styles of self-presentation. The interpersonal skills of the average inmate, by contrast, are likely to be substantially less appealing to employers. The choice of testers in this respect was deliberate, as a means of fully separating the signal of a criminal record from other correlated attributes to which employers may also respond. It is nevertheless important to consider the extent to which these testers can be considered accurate representatives of the ex-offender experience. On one hand, it may be the case that the testers in this study represent a best case scenario. Because their interactional style does not correspond to that of a stereotypical criminal, employers may be more willing to consider them as viable candidates, despite their criminal background. In this case, the present study design would underestimate the true effect of a criminal record. On the other hand, for individuals with poor interpersonal skills, a criminal record may represent just one additional—but less consequential—handicap to the already disadvantaged candidate. If this is the case, the effect of a criminal record may be overestimated by the testers in the present study.

One approach to investigating this problem is to analyze those applications submitted with no personal contact with the employer.[43] In these

[42] This figure presents the results for white testers only. Similar patterns are found for black testers, not shown here.

[43] Over 75% of applications were submitted with no personal contact with the employer.

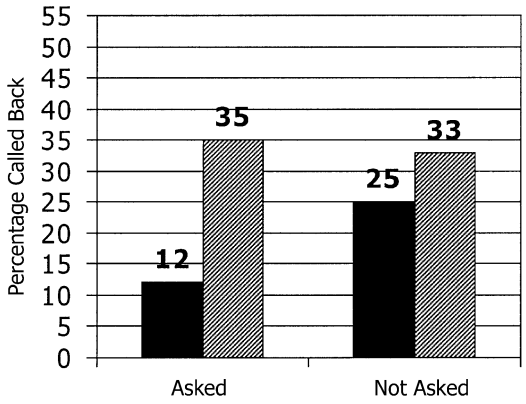



FIG. A1.—Differences by whether criminal history information was solicited: black bars represent criminal record; striped bars represent no criminal record.

cases, the interpersonal skills of the testers should have no influence on the employer's consideration of the applicant. In the analysis reported in figure A2, I find that the effect of a criminal record is even greater in the absence of personal contact, relative to the overall findings reported earlier.[44] Personal contact appears to mediate the effect of a criminal record, reducing its negative impact. These results are suggestive of the former hypothesis: the interpersonal skills of testers in the present study, to the extent that they are noticed by employers, serve to weaken the effect of a criminal record. The estimates reported here, therefore, likely represent a lower-bound estimate of the true effect of a criminal record.

*The case of Milwaukee*.—One key limitation of the audit study design is its concentration on a single metropolitan area. The degree to which the findings of each study can be generalized to the broader population, therefore, remains in question. In the present study, Milwaukee was chosen for having a profile common to many major American cities, with respect to population size, racial composition, and unemployment rate. There are, however, two unique features of Milwaukee that limit its representativeness of other parts of the country. First, Milwaukee is the second most segregated city in the country, implying great social distance between blacks and whites, with possible implications for the results of the audit study. If race relations are more strained in Milwaukee than in other parts of the country, then the effects of race presented in this study may be larger than what would be found in other urban areas. Second, Wisconsin had the third largest growth in incarceration rates in the coun-

[44] This figure presents the callback rates for white testers only.

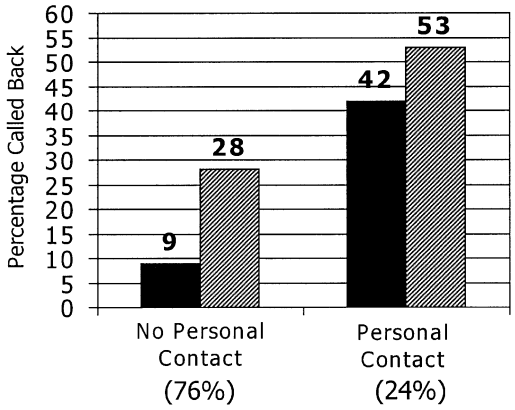



FIG. A2.—The effect of personal contact: black bars represent criminal record; striped bars represent no criminal record.

try (Gainsborough and Mauer 2000) and currently has the highest rate of incarceration for blacks in the country (Bureau of Justice Statistics 2002*b*). If the statewide incarceration rates are reflective of an especially punitive approach to crime, this could also affect the degree to which a criminal record is condemned by employers, particularly among black applicants.

Of course, the only way to directly address these issues is through replication in additional areas. With respect to the main effect of race, previous audit studies have been conducted in Washington, D.C., Chicago, and Denver, confirming the basic magnitude of the effects reported here (Bendick et al. 1994; Turner et al. 1991; Culp and Dunson 1986). Likewise, a recent correspondence of the effects of race on a more restrictive sample of occupations in Boston and Chicago produced strikingly similar estimates (Bertrand and Mullainathan 2002). These results, therefore, provide some indication that Milwaukee is not a major outlier in its level of racial discrimination in hiring.

In the case of the criminal record effect, only future studies can confirm or contradict the results presented here. As the first study of its kind, it is impossible to assess the degree to which these findings will generalize to other cities. Looking to existing survey research, however, we can gain some leverage on this issue. According to a recent survey conducted by Holzer and Stoll (2001), employers in Milwaukee reported substantially greater openness to considering applicants with criminal records relative to their counterparts in Chicago, Los Angeles, and Cleveland. If these self-reports accurately reflect employers' relative hiring tendencies, then we would expect the results of this audit study to provide conservative

estimates of the barriers to employment faced by ex-offenders in other metropolitan areas.

*Sample restrictions*.—The present study was intended to assess the effect of a criminal record on employment in entry-level jobs. In order to obtain a sample of such positions for use in this study, however, it was necessary to impose certain sample restrictions on the categories of entry-level employment to be included. The degree to which these restrictions affect the generalizability of these findings to real employment searches therefore warrants careful consideration.

Virtually all employment audits have relied on samples of job openings identified through ads in metropolitan newspapers. Though want ads provide an easily accessible listing of job vacancies, research on actual job search behavior demonstrates that only a minority of jobs are found through this source. Holzer (1988) estimates that roughly 20%–25% of search time is spent on contacts generated by newspaper advertising; friends and relatives and direct contact of firms by applicants represent a much more common sources of new employment.

Though it would preferable to include job vacancies derived from representative sources, it is difficult if not impossible to map the network of informal contacts that lead to most job opportunities. Instead, researchers have relied upon sources that allow for systematic and consistent sampling schemes, despite the reduction in representativeness. Following previous research, the present study relies upon a random sample of job openings from advertised sources (the *Milwaukee Journal Sentinel* and *Jobnet*). Fortunately, there is compelling research to suggest that the restricted sample provides a more conservative estimate of racial discrimination. Firms who wish to discriminate, it is argued, are more likely to advertise job openings through more restrictive channels than the metropolitan newspaper, such as through referrals, employment agencies, or more selective publications (Fix and Struyk 1993, p. 32). Indeed, this argument is indirectly supported by research showing that minorities are more successful in job searches generated by general newspaper ads than through other means (Holzer 1987). Further, pilot audits conducted by the Fair Employment Council in Washington, D.C., also indicate lower rates of discrimination against minorities in jobs advertised in metropolitan newspapers than those advertised in suburban newspapers or through employment agencies (Bendick et al. 1991, 1994).

In the case of ex-offenders, personal networks may represent a more important source of employment. Though there have been few systematic investigations of the search methods of individuals coming out of prison, small-scale case studies indicate that personal referrals can be extremely important for the job placement of this population (Nelson, Deess, and Allen 1999; Sullivan 1989). Because of the pervasive discrimination faced

by ex-offenders in the labor market as a whole, personal networks can direct individuals to specific employers who are willing to hire applicants with criminal records. In this case, ex-offenders may be likely to queue for lower-quality jobs that accept applicants with criminal histories rather than applying for the wider range of (higher-quality) employment among which they are likely to face more severe discrimination. If this is the case, incarceration effects would be more likely to show up in estimates of earnings and job security, rather than employment probabilities as measured here (see Western 2002). Future research mapping the search patterns of ex-offenders would provide useful information with which to evaluate the types of jobs in which ex-offenders are most at risk of discrimination.

It is important to note, however, that the importance of social networks for ex-offenders seeking employment may differ across racial groups. Sullivan (1989), for example, reports that, among juvenile delinquents, whites and Hispanics were readily placed in employment through relatives or extended networks following release from incarceration; blacks, by contrast, benefited much less from social networks in finding work. These informal methods of job search behavior, therefore, may in fact result in greater evidence of racial disparities in employment following incarceration than what is reported here.

Prior to sampling, the following additional restrictions were imposed (for reasons discussed below): not hiring through employment agency, no more than high school degree required, no public sector positions, no health care positions, no jobs related to the care of children or the elderly, and no jobs whose announcements explicit stated security clearance required.

The restrictions with the largest effect on my sample are those related to employment agencies and the health care industry. Employment agencies are becoming increasingly dominant in regulating the market for entry-level labor. Between 35% and 40% of jobs advertised through *Jobnet* (the Internet employment bulletin) were temporary to permanent positions through an employment agency. There exists quite a bit of literature on the quality of temporary employment and the treatment of workers hired through employment agencies (Henson 1996). An audit of employment agencies, however, warrants an independent study, given the very different hiring processes operating in such establishments.

The elimination of health care positions from my sample was due to the extensive legal restrictions in this sector barring the employment of individuals with criminal records.[45] This sample constraint eliminated a

[45] Such restrictions also apply to occupations involving care for children or the elderly and many public sector positions.

huge number of jobs otherwise available to entry-level job seekers without criminal records. The health services sector represents 8.3% of total employment in the Milwaukee region (COWS 1996), and a much larger share of new employment. Hospitals alone were the fourth largest employers in Milwaukee in 1995 (COWS 1996). These are some of the highest-wage jobs in the service sector (COWS 1996).

Other occupations were likewise eliminated from the sample, not because of blanket legal restrictions, but because their job announcements explicitly stated that applicants must pass a criminal background check or that security clearance was required. While it is not clear that blanket exclusion of all criminal convictions in these cases was defensible under the law, the employers' policies were made explicit. While one cannot always assume that stated policies will be enforced, in the case of criminal records, these jobs are unlikely to demonstrate much variance.

A true estimate of the collateral consequences of a criminal record on employment opportunities would take into account the large number of jobs formally closed to ex-offenders (rather than just those demonstrating a preference for or against applicants with criminal records). The estimates produced from the audits, therefore, represent only part of the total effect of a criminal record of the likelihood of finding employment.

### *Experimenter Effects*

One potential weakness of the audit study methodology is that the expectations or behaviors of testers can influence the outcome of results in nonrandom ways. In the course of this research, it became apparent that testers may in fact (unconsciously) behave differently depending on the experimental condition. With respect to the criminal record condition, several testers commented that they felt irrationally bad about themselves when presenting themselves as ex-offenders. If it is the case that these feelings made them more self-conscious or more reticent or nervous when speaking with employers, then this behavior in itself may lead to spurious outcomes. These psychological reactions may be even more pronounced in the case of black testers. One tester early on reported feelings of discouragement and frustration that he had received very few responses from employers. As a successful, bright college student, the change in status to a young black criminal was extreme, and the difference in treatment he received seemed to take a toll. Fortunately, after gaining more experience with the project, this tester (and others) seemed to feel more comfortable in their interactions and better able to perform in their assigned roles.

It is certainly the case that the psychological experiences of testers can influence the outcome of audit studies in nontrivial ways. It is unlikely, however, that these internal dynamics are the driving force behind the

results reported from this study. As noted earlier, in a vast majority of cases, testers had little if any contact with employers. Given that a majority of callbacks were made on the basis of applications submitted with little or no personal contact, the internal disposition of the tester is unlikely to exert much influence. The finding that personal contact actually served to weaken the effect of a criminal record (see fig. A2 above) provides further evidence that the friendly, appealing qualities of the testers were apparent to employers, even among applicants in the criminal record condition.

## APPENDIX B

TABLE B1
LOGISTIC REGRESSION OF THE EFFECTS OF CRIMINAL RECORD AND RACE ON APPLICANTS' LIKELIHOOD OF RECEIVING A CALLBACK

| | Coefficient | Robust SE |
|---|---|---|
| Criminal record ..... | −.99 | .24*** |
| Black ..... | −1.25 | .28*** |
| Criminal record × black ... | −.29 | .38 |

NOTE.—SEs are corrected for clustering on employer ID in order to account for the fact that these data contain two records per employer (i.e., criminal record versus no criminal record). This model also controls for location (city vs. suburb) and contact with the employer, variables that mediate the relationship between race, crime, and employer responses.

*** $P < .001$.

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