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# **The Effect of Criminal Background Checks on Hiring Ex-Offenders**

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## **The Effect of Criminal Background Checks on Hiring Ex-Offenders**

### **ABSTRACT**

The rapid rise in the nation's incarceration rate over the past decade has raised questions about how to successfully reintegrate a growing number of ex-offenders. Employment has been shown to be an important factor in reintegration, especially for men over the age of 27 that characterize the majority of individuals released from prison. At the same time, there is substantial evidence that employers discriminate against ex-prisoners. One policy response that has received considerable attention is to deny employers access to criminal history record information, including movements to "ban the box" asking about criminal history information on job applications. The assumption underlying this movement is that knowledge of ex-offender status leads directly to a refusal to hire. An alternative view is that some employers care about the characteristics of the criminal history record, and use information about criminal history in a more nuanced, non-discrete way. This paper explores this question using unique establishment-level data collected in Los Angeles in 2001. On average, we replicate the now common finding that employer initiated criminal background checks is negatively related to the hiring of ex-offenders. However, this negative effect is less than complete. The effect is strongly negative for those employers that are legally required to check. But some employers appear to check to gain additional information about ex-offenders (and thus hire more ex-offenders than other employers), while checking appears to have no affect on hiring ex-offenders for those employers not legally required to check. Therefore, initiatives aimed at restricting background checks for those firms not legally required to check may not have the desired consequences of increasing ex-offender employment.

## 1. Introduction and Background

One of the dramatic social transformations in the U.S. over the past two decades has been the rapid rise in the prison population. Between 1980 and 2000, the U.S. prison population increased four-fold from 300,000 to over 1.2 million. Including those in local jails, over 2 million individuals are currently incarcerated. At these rates, the Bureau of Justice Statistics (BJS) estimates that approximately 9 percent of all men will serve some time in state or federal prisons, with this fraction growing over the near future.<sup>1</sup>

The successful reintegration of these (mostly) men depends in part on their ability to find and maintain gainful employment (Travis, et. al., 2001). But there are several factors to suggest potentially negative effects of criminal convictions on labor market outcomes. On the supply-side of the labor market, those serving time fail to accumulate work experience, sever social networks that may aid in finding employment, and may experience an erosion of skills while incarcerated. Hence, a prison sentence may permanently worsen the labor market prospects of ex-convicts who already have dim prospects before entering prison (Petersilia 2001).

On the demand-side, employers may be reluctant to hire workers with criminal convictions for fear that an ex-con may harm a customer or be more likely to steal. Employers may place a premium on the trustworthiness of employees, especially when the ability to monitor employee performance is imperfect. In response to these concerns, employers may run background checks to exclude ex-offenders from employment. Moreover, certain occupations

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<sup>1</sup> The trends in incarceration are especially pronounced for California, and within California, for Los Angeles in particular (the area in which our employer sample was drawn). California houses a disproportionate share of the nation's recently released prisoners. In 2002, about 23 percent of the nation's approximately 600,000 recently-released prisoners resided in California, in contrast to a state population equal to 11 to 12 percent of the nation's. What's more, of the approximately 140,000 released prisoners in California in 2001, a disproportionate share of these - nearly 34 percent - returned to Los Angeles County (which houses about 28 percent of the state's population) (Bureau of Justice Statistics, 2002; U.S. Census, 2001).

are legally closed to individuals with felony convictions under state and, in some cases, federal law (Hahn, 1991), thus requiring employers to do criminal background checks. Examples include jobs requiring contact with children, certain health services occupations, and employment with firms providing security services. These types of checks often amount to an outright ban on hiring ex-offenders. Clearly, if employers respond to criminal history record information by barring all ex-offenders from employment, then policymakers need to be careful about who gets access to this kind of information. “Ban the box” movements, aimed at eliminating criminal history questions from standard employment applications, represent this type of policy response.

However, it is not clear that employers respond to criminal history information by refusing to hire ex-offenders. Even some statutes which require checking provide for the use of discretion for at least some classes of offenders. For example, New York State requires background checks for all unlicensed workers in nursing homes, but provides for discretionary hiring for broad classes of ex-offenders.<sup>2</sup> The Department of Health does the background check, and makes the final decision on the basis of a number of factors including the nature of the offense, and the time since last offense. Employers often advocate for ex-offenders in this context, and ex-offenders are in fact still allowed to work in nursing homes in New York.

Employers who are not required to check may also run criminal background checks to make more informed decisions about hiring these workers. While studies unquestionably show

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<sup>2</sup> The Statutory New York State Public Health Law and Executive Law created a class of convictions which acted as a presumptive bar to employment, unless DOH determined that employment would not in any way jeopardize the health, safety or welfare of the patients. The crimes in this presumptive denial class include a life time bar for a sex offense, A felony conviction and 10 year bans for violent felony conviction, a misdemeanor endangering the welfare of an incompetent or physically disabled person. (PL 260.25), B,C, D or E felony conviction for: assault (PL 120); larceny (PL 155); Robbery (PL 160); Diversion of Prescription Medications (PL 178); Controlled Substances (PL 220); felony for endangering welfare of elderly person (PL 260.32 and 260.34).

that ex-prisoners run a high risk for recidivism (Langan and Levin 2002), risk assessments show that not all ex-offenders are equally at risk for re-offending (Kurlychek et al. 2006, 2007, Gendreau et al. 1996). For some employers, therefore, background checks may not exclude ex-offender applicants altogether but could actually increase their hiring. Finally, other employers may check ex-offender status as a standard, routine recruitment and hiring practice in order to protect themselves against negligent hiring lawsuits.<sup>3</sup> Moreover, they may do so without regard to whether such checks actually exclude ex-offenders. Checking in this instance may have little effect on whether the firm actually hires ex-offenders.

This paper seeks to better understand the effect of employers' use of criminal background checks on hiring ex-offenders. Previous research on this and related questions has not directly addressed the question of what effect such use of criminal background checks has on hiring ex-offenders. Some, using employer-based surveys, examine employer willingness to hire ex-offenders and the characteristics of firms that run background checks, how and when these checks are done and whether they have increased over time (Holzer, Raphael and Stoll, 2004; 2003). Evidence shows, unsurprisingly, that employer aversion to ex-offenders is quite high, and that firms that check backgrounds are larger, in industries that have more customer contact such as in retail trade and service, are increasing over time and mostly conducted through private sources.

Consistent with these studies, Pager, using an audit study framework, finds that both white and black men with criminal records are much less likely to be called back for a job

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<sup>3</sup> Legally, negligence is premised on the idea that one who breaches a duty of care to others in an organization or to the public is legally liable for any damages that result (Glynn 1988). Under the theory of negligent hiring, employers may be liable for the risk created by exposing the public and their employees to potentially dangerous individuals. As articulated by Bushway (1996), "...employers who know, or should have known, that an employee has had a history of criminal behavior may be liable for the employee's criminal or tortuous acts." Thus, employers may be exposed to punitive damages as well as liability for loss, pain, and suffering as a result of negligent hiring.

interview than their counterparts without such records (Pager, 2003). However, the criminal background penalty is more pronounced for whites than blacks, perhaps because employers statistically discriminate against black men on the basis of perceived criminality (Holzer, Raphael and Stoll, 2002; Pager, 2003). The Pager study is interesting because first, it only studied firms that do not formally check criminal history records, and second, the auditors were instructed to inform all of the employers that they were ex-offenders. 17% of the white auditors with a criminal history record received a call back from an interested employer. While this is half the call back rate of white non offenders, this finding nonetheless demonstrates that knowledge of criminal history records does not always result in a bar to employment. The question in this paper is whether hiring of known ex-offenders takes place in firms that actually check for criminal history records from an outside source.

Specifically, we analyze whether employer initiated criminal background checks negatively affects the actual hiring of ex-offenders using a unique establishment dataset collected from a representative sample of employers in Los Angeles in 2001. As expected, we find evidence that use of criminal background checks is negatively related to the hiring of ex-offenders. This effect is particularly strong for those employers that are legally required to check. Whether employers are legally required to check operates independently of their attitudes towards ex-offenders. And while employers who are not willing to hire ex-offenders are substantially more likely to check criminal history records, we also find that the negative effect of checking on hiring ex-offenders is not absolute. Some employers appear to check to gain additional information about ex-offenders and hire more ex-offenders than other employers, while others checking behavior is uncorrelated with hiring practice. These latter results are

especially true for those employers that are not legally required to check. We speculate that these employers may be using inexpensive internet background checks as a kind of insurance against negligent hiring lawsuits.

The primary lesson of this paper is that the background check itself is not the problem for people concerned about the hiring of ex-offenders. Firms that are unwilling to hire ex-offenders do not hire ex-offenders whether or not they use outside searches to check criminal history records. Furthermore, the motive for the background check appears to be as important as the background check in driving hiring. Minimizing the number of statutes that require checks and restricting the costs of negligent hiring lawsuits might be more productive policy initiatives than limiting background checks themselves.

## **2. Data and Description of Main Variables**

The data were collected using 20-minute telephone surveys administered to 619 establishments in Los Angeles. The survey was administered between May 2001 and November 2001.<sup>4</sup> Employers were drawn from lists compiled by Survey Sampling Inc. (SSI), primarily from telephone directories. To the extent possible, the phone interviews were conducted with the person in the establishment who is responsible for entry-level hiring. Establishments were screened according to whether they had hired an employee into a position not requiring a college degree within the previous year. However, this screen eliminated no firms from our sample.

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<sup>4</sup> The survey was conducted in Los Angeles because it is a large and populous metropolitan area in a state with a large incarcerated population. Nearly a third of recently released prisoners in California return to Los Angeles County, the geographic boundaries of our study area. At the time of the survey its regional economy registered some of the lowest unemployment rates in thirty years and appeared relatively strong while the national economy had dipped into a recession. However, while the survey was in the field, the Los Angeles economy began to weaken, particularly in the manufacturing sector; and, of course, the events of September 11 took place. These events are likely to have affected employer responses to questions about their willingness to hire ex-offenders, perhaps in the negative direction.



The overall survey response rate was 65 percent, in the range of other similar firm surveys (Holzer and Stoll, 2001; Kling, 1995; Holzer, 1996).

The surveyed firms were drawn from a sample that was stratified ex-ante by establishment size. Sampling across strata was performed in proportion to the amount of regional employment accounted for by the establishment size category. Within strata, firms were sampled at random. Thus, the sample is representative of the distribution of the workforce in the Los Angeles region across establishment size categories without any need for additional size-weighting.

Of course, there is some concern that our data comes from one metropolitan area, and thus might not necessarily be generalizeable to all cases or areas. But, a comparable employer survey in the mid-1990s revealed that employers were all similarly averse to hiring ex-offenders in Los Angeles, Atlanta, Boston, and Detroit and that such aversion varied across key variables such as those for industry in strikingly similar patterns across these metro areas. Likewise, there was a strong similarity in the extent to which employers checked the criminal backgrounds of their applicants across these metro areas (Holzer, Raphael and Stoll, 2004). This was true despite the fact that California is identified in the 2002 Compendium of State Privacy and Security Legislation as having some of the most restrictive statutes regarding access to the criminal records maintained for the criminal justice system. It is also not one of the twenty-three states with open-records policies allowing non-criminal justice access to the public repository without statutory authorization. Thus, we have some confidence that the results of our analysis will not be specific to Los Angeles or California.

The main variables we will focus on in this analysis are indicators of employers' *actual* hiring of ex-offenders. To gauge this hiring, the survey asks "To your knowledge, has your business in the past year hired any men with criminal records? yes, no, do not know; and if yes, how many men have you hired." Based on answers to these questions, we develop two alternative measures of actual ex-offender hiring at the firm. The first is defined as the percent of all jobs (filled and unfilled) in the firm filled by ex-offenders over the last year, and the second is defined as the percent of all new hires who are ex-offenders at the firm over the last year. As we note below, larger firms are more likely to check, may also be more likely to hire ex-offenders, and also do a lot of overall hiring generally. Thus firm size may account for much of the hiring of ex-offenders between firms that check and do not. As a result, we include this second, alternative measure of ex-offender hiring since it should be less sensitive to these concerns.

For this study, a person has a criminal history record if they had previously been convicted of a felony, so it is open ended as to whether that person served time in prison. An additional concern is whether employers know they have hired ex-offenders. It is unlikely that all employers know whether they have hired ex-offenders, or the true number of them they have hired. But our focus is on those who check. About half of the employers in this survey actually check for criminal backgrounds, and another 20 percent check sometimes. Moreover, previous work using similar employer surveys show that a large fraction of employers (about 30 percent) have contact with employment agencies that attempt to place disadvantaged workers, including ex-offenders, into jobs (Holzer and Stoll, 2001). Nonetheless, the lack of complete information means that the level of ex-offender hiring at the firm is likely to be systematically underestimated.

The next main variables we examine in the analysis concerns whether, how and why establishments do criminal background checking. We ask in the survey “How often do you check the applicant’s criminal record? always, sometimes, never.” Whether a firm checks criminal backgrounds is measured as those firms that always check since there is little difference in behavior and hiring for those firms that indicate that they sometimes or never check. We will also examine a series of questions for the last filled non-college position at the firm in our data concerning whether employers were legally required to check and how (or from what source including criminal justice agencies, private sources, or other methods) they checked.

There are some concerns about the checking measures in our analysis. The question concerning whether employers were legally required to check and how they checked were asked for the last filled job rather than at the firm level. Thus, some miss-measurement of these variables is likely introduced. Still, the last filled job at the firm is likely highly correlated with average jobs at the firm, and thus we should be able to detect the association between legal requirements (and methods of checking) and ex-offender hiring at the firm. Moreover, to the extent that this miss-measurement is classical in nature, this should lead to downward biased (towards zero) or conservative estimates of their association with hiring ex-offenders.

A second concern is that we are unable to disentangle whether employers are actually legally required to check or whether they simply perceive they are legally required to check. To gain insight into this question, we explored two areas. First, we examined the different methods employers used to check backgrounds given their responses to questions about whether they were legally required to check. In California, employers who are statutorily required to check backgrounds for certain jobs must use the Bureau of Criminal Identification to do so and are not allowed to use private vendors. Private vendors make use of publicly available information from

court records and other sources, and the information is not guaranteed to match the information in the public repository (Bushway et al. 2007). The data indicate that 56 percent of employers who indicate that they were legally required to check used criminal justice methods (which is consistent with the use of public repositories), while 31 percent of these used private sources. This compares with 19 and 67 percent, respectively, for checking employers who indicate that they were not legally required to check.<sup>5</sup>

Second, we examined the Compendium of State Security and Privacy Legislation from the U.S. Bureau of Justice Statistics and identified the likely four digit standard industrial classification (SIC) codes for employers legally required to check according to California statutes. We then employee size weighted industries using data from the 2000 *U.S. Census* for California and calculated the industrial distribution of industries that are legally required to check criminal background. Finally, we compared this distribution to the industrial distribution of employers in our sample that indicated that they were legally required to check and used criminal justice methods to do so. We found very similar distributions across these two estimates, with about 90 percent of industries (and employers) located in the service industry.<sup>6</sup>

Our empirical strategy is as follows. First, we examine mean differences in ex-offender hiring outcomes between establishments that check and do not check the criminal backgrounds of their applicants. The key problem is identifying the relationship between employer checking and hiring of ex-offenders is that employer attitudes could drive such checking of criminal backgrounds, thus leading to a spurious correlation between checking and hiring of ex-offenders.

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<sup>5</sup> There is a potential measurement problem here. Firms that are required to check may not deal directly with a criminal justice agency. In California, employers deal directly with the regulating agency covered by the statute, and that agency deals with the Bureau of Criminal Identification. Employers may also contract out this function to a private human resources company, which would nonetheless get the information from the Bureau of Criminal Identification as required by law.

Partly to address this concern, we do the following. We estimate a series of regression models that include an extensive list of establishment characteristic control variables to examine whether firms that check are less likely to hire ex-offenders. We then include additional control variables into the equation that measure employer attitudes towards hiring ex-offenders. Next, we estimate similar equations for employers' prospective hiring of ex-offenders. If employer attitudes are driving both whether they check backgrounds and hire ex-offenders, then the effect of checking should also be strongly related to their prospective hiring of ex-offenders.<sup>7</sup> Finally, we examine whether the effect of checking on hiring ex-offenders is stronger for those employers who indicate that they were legally required to check. Employer attitudes should not affect whether firms are legally required to check (especially for those who use criminal justice agencies to check). In the second part of the analysis, we examine heterogeneity in the use of criminal backgrounds checks and how these different uses of such checks affect ex-offender hiring.

### **3. Empirical Results**

#### *A. Unadjusted Differences in Hiring Outcomes*

Table 1 present the means of the ex-offender hiring and criminal background checking variables for the sample as a whole and stratified by whether the firms checks criminal backgrounds. The data indicate that employers hired ex-offenders into about 1.4 percent of jobs at the firm over the past year. Previous estimates for 1999 indicate that the total stock of

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<sup>6</sup> See Table A.2 in the appendix for the industrial distribution of employers who indicated that they were legally required to check and used criminal justice agencies to do so.

<sup>7</sup> These prospective measures of ex-offender hiring are defined as the percent of jobs at the firm that employers would be willing to fill currently (at the time of the survey) with ex-offenders, and as the percent of jobs at the firm that employers would be willing to fill over the next year with ex-offenders. These prospective measures are similar

unemployed former felons at any point in time is about 3 to 4 percent of the labor force, while that of former prisoner is about 1.5 to 2 percent of the labor force (Holzer, Raphael, and Stoll, 2004). Thus, our actual hiring figure seems reasonable given these figures and does not suggest a huge imbalance between the potential labor supply from former offenders and the aggregate job availability they might face (at least for former prisoners). About 5 percent of new hires at the firm are ex-offenders. This suggests even greater opportunity to absorb ex-offenders into the labor market.

Column 2 shows that for both measures of actual hiring, firms that check are less likely to hire ex-offenders than firms that don't check. For the percent of jobs filled in the past year measure, the difference in ex-offender hiring between firms that do and don't check is about 1.7 percentage points. Thus, at the mean level, there appears to be a strong, negative relationship between checking and ex-offender hiring.

Table 1 also shows that about 44 percent of firms check backgrounds. This level of checking is up by 12 percentage points since the 1992 to 1994 period, perhaps because of the emergence of relatively inexpensive, quick, private companies that provide checking services over the internet (Holzer, Raphael, and Stoll, 2003). About half of these firms check because they are (or perceive they are) legally required to check, while a plurality of these checking firms use private sources, such as those that can be accessed through the internet. About 14 percent of firms indicate that they check backgrounds using other methods, which in this survey includes asking applicants themselves. This method of checking is not considered a formal criminal background check since the employer does not check the applicants' answers to a question of whether they have been convicted of a felony with actual rap sheets provided through public or

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to those used to estimate prospective employer demand for other disadvantaged groups such as welfare recipients

private sources. As a result, in the analysis, we examine whether the effect of checking on hiring ex-offenders changes when we recode employer responses of using ‘other methods’ of checking to that indicating no formal criminal background check.

### *B. Estimating Equations*

The preceding analysis demonstrates differences in hiring ex-offenders between firms that check and don’t check the criminal backgrounds. In this section, we discuss the models used to estimate the relationship between checking and ex-offender hiring while controlling for extensive establishment characteristics and employer behaviors. We estimate the equations:

$$\% \text{ Jobs Filled Ex} - \text{Offenders}_k = CBC_k \beta_{11} + \beta'_{12} X_k + \varepsilon_{1k} \quad (1)$$

$$\% \text{ New Hires Ex} - \text{Offenders}_k = CBC_k \beta_{21} + \beta'_{22} X_k + \varepsilon_{2k} \quad (2)$$

where  $CBC$  is whether the firm checks the criminal background of applicants in firm  $k$ , and  $X$  is a variety of independent establishment level variables for firm  $k$ . Since a large fraction of establishments have hired no ex-offenders (about 80 percent), equations 1) and 2) are estimated with the tobit functional form so as to censor the 0 values.<sup>8</sup>

Variation in ex-offender hiring at the firm may be attributable to several factors, including the establishment’s characteristics such as size, industry, location, vacancy rates, skill needs, presence of collective bargaining, minority ownership and non-profit status. Larger firms, firms in industries with little customer contact such as in manufacturing, construction and transportation, as well as firms that are more proximate to ex-offender populations such as those in the central city will be more likely to hire ex-offenders. This is also likely true for firms that

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(Holzer and Stoll, 2003).

<sup>8</sup> We experimented with other models such as OLS, but tobit best fit the data we examine here.

have a larger fraction of lower skilled jobs<sup>9</sup> (that might match the skill levels of ex-offenders) and greater labor needs (as measured by their vacancy rates). Many of these factors are also likely to be correlated with whether the firm checks criminal backgrounds of their applicants and thus we include these to adjust our estimates in the regression analysis that follows.

Employer attitudes towards ex-offenders are also likely to be correlated with their actual hiring of them as shown elsewhere (Holzer, Raphael, and Stoll, 2003). To gauge these attitudes, we include measures of employers' willingness to hire ex-offenders. These include those employers who are willing (very willing or somewhat willing), unwilling (very unwilling or somewhat unwilling), and those who indicate that their willingness depends on the crime that the applicant committed. These attitudes, however, are strongly correlated with whether employers check the criminal backgrounds of these workers and thus we include regression models with and without these attitudinal variables.

Finally, another concern in the actual measures of ex-offender hiring is that while it provides information on employers actual behavior with respect to hiring male workers with criminal backgrounds, it is also likely to reflect a mix of demand-side (i.e., firms) and supply-side (i.e., workers) factors that might influence access of such workers to these firms. For instance, to the extent that ex-offenders perceive that their job prospects are weaker at firms that check backgrounds than those that don't check, they will be less likely to apply and therefore be hired at establishments that check. This self-selection of ex-offender applicants across firms that check and don't check could lead to a spurious relationship between checking and ex-offender hiring. Since we do not have applicant data on ex-offenders at these firms, this is a difficult concern to address. We do, however, have data on the racial composition of its applicants.

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<sup>9</sup> Unskilled jobs refer to those jobs that do not require any particular skills, education, previous training or



Since blacks and Latinos are overrepresented among those with ex-offender backgrounds, we use these measures as proxies.<sup>10</sup>

Table 2 provides the means of these establishment level and employer attitude characteristics stratified by whether the firms checks backgrounds. Table 2 shows that checking firms are disproportionately in retail trade and service industries, are larger firms, and are those firms that are non-profit and unionized. Those employers who indicate that their willingness to hire ex-offenders depends on the crime are also among those that disproportionately check. Alternatively, firms that don't check are disproportionately those in manufacturing and construction industries, are smaller firms, and are minority owned. Employers that are willing to hire ex-offenders are also those who are less likely to check. These results are consistent with previous research (Holzer, Raphael, and Stoll, 2004; 2003).

Table 3 present tobit regression results of employer hiring of ex-offenders. Models 1 to 5 under A are estimated for the percentage of jobs filled by ex-offenders over the last year, while Model 6 under B is estimated for the percentage of new hires. Model 1 includes only the variable indicating whether the firm checks criminal backgrounds and shows a statistically significant, negative relationship with ex-offender hiring that is consistent with the mean difference in hiring between firms that check and don't check shown in Table 1. The tobit model predicts a difference of ex-offender hiring between firms that check and don't check of .006 percentage points, slightly lower than for the unadjusted mean difference in hiring between these firms shown in Table 1.

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experience when filled.

<sup>10</sup> In addition, we experimented with a variety of supply side variables to proxy ex-offender applicants such as the firms distance to populations and characteristics of males that are highly correlated with ex-offenders such as those that did not complete high school (and by race) using data from Census 2000. These variables were geocoded to our survey of employers. However, we did not find any statistical association between these measures and our ex-offender hiring variables.

Model 2 includes the establishment characteristics into the model specification. With their inclusion, the magnitude of the coefficient on firm checks background is reduced slightly, indicating that differences in establishment characteristics between firms that check and don't account for part of difference in hiring ex-offenders between these firms. In particular, industry and the fraction of jobs at the firm that is unskilled account for much of this difference. Still, the coefficient on firm checks backgrounds remains statistically significant with their inclusion. Note that firms with less customer contact such as those in construction and transportation, and firms with a large fraction of unskilled jobs are much more likely to hire ex-offenders.

Model 3 adds the racial composition of applicants to the model to account for the potential supply of ex-offenders to these firms. Black male and Latino applicants are significantly and positively related to ex-offender hiring as we expect given that ex-offenders are disproportionately represented among these groups. With the inclusion of these variables, the statistically significant and negative coefficient on firm checks backgrounds becomes larger in magnitude, as expected.

Model 4 adds variables measuring employer willingness to hire ex-offenders into the model specification to account for employer attitudes towards these workers. The model indicates that employer willingness to hire ex-offenders is significantly and positively related to actual ex-offender hiring. As noted, a problem in identifying the effect of checking on hiring ex-offenders is that firms that check are also likely those firms that are unwilling to hire ex-offenders generally. When these variables are included in the models specification, the magnitude of the negative coefficient on firm checks backgrounds is reduced by about a third and it loses its significance.

Despite this, the coefficient remains reasonably large in magnitude given potential problem of multicollinearity. There is a strong correlation between employer willingness to hire ex-offenders and whether the firm checks and thus including these employer attitude variables may over control for relevant factors in the model. Table A.1 in the appendix presents logit regressions of whether the firm checks backgrounds and shows that employers that are willing to hire ex-offenders are much less likely to check criminal backgrounds, even when controls for firm characteristics are taken into account. Thus, the potential multicollinearity between employer willingness to hire ex-offenders and whether firms check backgrounds is likely to bias towards 0 the effect of background checks on hiring ex-offenders when employer attitudes towards these groups are included in the model. Because of this concern, for the remainder of the analysis we do not include these employer attitudes variables into the analysis.

Model 5 presents estimates of the effect of criminal checks on hiring ex-offenders that is exactly comparable to Model 3, except that employer responses that they checked with other methods are recoded as firm did not check backgrounds for reasons discussed earlier. When this is done, we find larger negative effects of checking. This could indicate that use of other methods such as asking the applicants themselves is not an effective method of checking since, for instance, many ex-offenders may not volunteer information of their criminal status on job applications. It is also consistent with Pager's (2003) finding of a substantial call back rate among employers who do not formally check for criminal history record but ask about it on the application. The tobit model under column 5 predicts a difference of ex-offender hiring between firms that check and don't check of .010 percentage points, slightly higher than for that shown in Model 1. Following these findings, for the remainder of the analysis employer responses that they checked with other methods are recoded to that indicating firm did not check backgrounds.

Model 6 presents estimates of the effect of background checks on the alternative measure of ex-offender hiring; percentage of new hires who are ex-offenders. We find a significant and negative effect of checking on ex-offender hiring using this alternative measure. Moreover, many of the establishment characteristics such as industry, the fraction of unskilled jobs and the racial composition of application at the firm that predict ex-offender hiring for our main measure of hiring also predict hiring for the alternative measure. However, larger and suburban firms are more likely to hire ex-offenders using our alternative measure of hiring.

Table 4 provides results of a series of regressions that provide alternative strategies to identify the relationship between background checking and ex-offender hiring. All regressions include control variables listed in Table 3, Model 3. Column 1 and 2 for Models A include two tobit regression estimates of the effect of background checks on the two prospective measures of hiring ex-offenders. As noted earlier, if employer attitudes towards ex-offenders are driving both whether firms check backgrounds and hire ex-offenders, then the effect of checking should also be strongly related to their prospective hiring of ex-offenders. The results from both of these regressions indicate that employers prospective hiring of ex-offenders is unaffected by whether the firm checks backgrounds. Though not shown here, many of the establishment characteristics that predict actual hiring also predict prospective hiring of ex-offenders.

Column 3 and 4 under Models B present coefficients for whether the firm is legally required to check from two equations predicting our two measures of actual hiring of ex-offenders. Employer attitudes towards ex-offenders should not affect whether firms are legally required to check, so whether a firm is legally required to check should have a direct effect on ex-offender hiring that is independent of these attitudes. The coefficient estimate on whether employers are legally required to check for both alternative measures of actual hiring of ex-

offenders are significant and negative. Moreover, these coefficient estimates are larger in magnitude than those for whether the firm check backgrounds generally for the comparable equations in Table 2, Model 5 for percent of jobs filled and Model 6 for percent of new hires. Interestingly, the coefficients for firm that check but are not legally required to are not significant and are positive in sign.

Some employers may perceive that they are legally required to check when in fact they are not. To better identify those employers that are actually required to check backgrounds, we separate those employers who indicate they are legally required to check into those who use criminal justice or private agencies. In California as we noted, employers who are statutorily required to check backgrounds for certain jobs must use the public repository to do so. Thus, those employers who indicate that they are legally required to check and check using criminal justice methods are more likely to be actually required to check. If so, we expect that the negative effect of checking for these employers should be stronger than for those who indicate that they are legally required but use private agencies. We also separate those employers who indicate that they are not legally required into those who used criminal justice or private agencies.<sup>11</sup>

Column 3 and 4 under Models C present coefficients for whether the firm is legally required to check and the method used to check from two equations predicting our two measures of actual hiring of ex-offenders. As expected, we find that the negative and significant coefficients for firms that are legally required and use criminal justice agencies is much stronger than those who are legally required to check and use private agencies (and those who are

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<sup>11</sup> Employers that indicate that they were legally required to check are disproportionately firms in service industries, are larger, unionized and not-for-profit. Firms that are legally required to check and check using criminal justice methods are even more disproportionately firms in service industries, are larger, unionized and not-for-profit. See

generally legally required to check (in Models B above)) for both hiring outcome variables.<sup>12</sup>

These results strongly suggest government statutes that require background screening have real, negative effects on hiring ex-offenders.

These results contrast sharply with the hiring practices of those who check backgrounds but are not legally required to do so. Two factors may help account for this. First, some employers may check to gain additional information about the ex-offenders whom they may consider hiring to help make intelligent, risk assessed hiring decisions. Second, some employers may check to protect themselves against possible negligent hiring lawsuits. We examine the first question by exploiting the information revealed by employers about their attitudes towards hiring ex-offenders. We stratify the sample by employers stated willingness to hire ex-offenders and examine the extent to which employers check backgrounds and the effect of checking on hiring ex-offenders across these employers.

If some employers check to glean additional information, we expect that employers who indicate that their willingness to hire ex-offenders depends on the crime should be more likely to conduct background checks and to use those background checks that may provide more accurate information than willing, and perhaps, unwilling employers. We interpret that employers who indicate that their willingness to hire ex-offenders depends on the crime are revealing that more information about the ex-offenders may help them assess their willingness to hire. The information that may make a difference in whether these employers are ultimately willing to or do hire may include the type of crime with which the offender was charged (i.e. violent or non-violent, etc.), how long they have been out of prison, whether they have gained any work

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Table A.3 in the appendix for the mean firm characteristics across firms that were legally required to check (or not), cross-referenced by the method used to check.

<sup>12</sup> When we include employer attitude variables into this equation, the coefficient on this variable (legally required to check and used criminal justice methods) is unaffected and remains statistically significant.

experience since prison, among other factors, as previous research documents (Holzer, Raphael, and Stoll, 2004).

Table 5 shows the mean level of background checks as well as the method of checking used for these employers. As expected, employers who indicate that their willingness to hire ex-offenders depends on the crime are more likely to check than even unwilling employers. Moreover, at least compared with willing employers, *depends on crime* employers are much more likely to use criminal justice agencies to check. Recent research indicates that these methods of checking are more accurate than private agencies. Private background checks are shown to produce substantially more false negatives (a true ex-offender, but not revealed in a criminal background check) than are public repositories (Bushway et al., 2007). That information is also of questionable quality, particularly if the information came from multiple sources or does not include disposition information. However, given the restrictions on non-criminal justice use of criminal history repositories in California, it is not surprising that private sources are used more frequently than the public repository.

Table 6 shows tobit estimates of hiring ex-offenders as a function of different kinds of checking practices for the sample stratified by employers willingness to hire ex-offenders. Because of the smaller sample sizes, we include the broader categories of legally required to check and method of checking rather than further disaggregating these as we did above. We find no significant effect of checking on hiring for employers who are unwilling to hire ex-offenders, probably because they are less likely to actually hire ex-offenders to begin with (as Table A.3 in the appendix confirms).

If some employers check to glean additional information, we expect that the negative effect of checking for those employers who indicate that their willingness to hire ex-offenders

depends on the crime should be weaker than for the willing, and perhaps, unwilling employers.

The table reveals that in Model A for both measures of actual hiring of ex-offenders that the effect of legal requirements to check is less negative for those employers who indicate that their willingness to hire ex-offenders depends on the crime (though none of the coefficients are statistically significant). We do find evidence that the effect of checking when employers are not legally required to is positive and significant for “depends on crime” employers for both measures of actual hiring.

The table also reveals that in Model B for both measures of actual hiring of ex-offenders that the negative effect checking with criminal justice agencies is smaller in magnitude for “depends on crime” employers (though for both unwilling and depends on crime employers the effect is not significant). It is also negative and significant for willing employers. Finally, the effect checking with private sources is generally insignificant for all employers but is positive in sign (though not significant) for depends on crime employers. Thus, taken together, the evidence in Tables 4 and 5 is consistent with the idea that some firms check to gain information and not necessarily to exclude altogether the hiring of ex-offenders. Indeed, we find some evidence that some checking may lead to the hiring of ex-offenders.

Because of the availability of relatively quick and inexpensive methods of checking that can be accessed through private companies on the internet, it is possible that some employers are using these methods of checking to protect themselves against potential negligent hiring lawsuits. The employers that check for this reason may or may not be adverse to hiring ex-offenders, but if they do hire them, they have evidence of checking backgrounds that may act as



a defense against such lawsuits.<sup>13</sup> If some employers are checking to protect themselves from these lawsuits, then the effect of background checks on hiring ex-offenders should be less negative for those employers who use private as opposed to public methods of checking.<sup>14</sup>

The evidence in Table 7 is consistent with this idea. For the full sample of employers, we find that the negative effect of background checks using criminal justice agencies on both actual hiring measures is larger in magnitude than the effect of checking using private sources. Restricting the sample in B to those employers who checked criminal backgrounds produces a similar set of findings.

#### **4. Conclusion**

The growing presence of men with criminal backgrounds in society coupled with the rapid rise in employers' use of criminal background checks begs the question of what effect such checks have on hiring ex-offenders. In this paper, we have examined the effect of employer initiated criminal background checks on the actual hiring of ex-offenders using an establishment survey taken in 2001 in Los Angeles. We find evidence that use of background checks is negatively related to the hiring of ex-offenders.

A major concern in the analysis is whether the effect of checking on hiring ex-offenders is spurious, operating instead through employer attitudes towards ex-offenders. Employer

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<sup>13</sup> In fact, evidence from the data is consistent with the idea that employers who use private sources of checking are much less adverse to hiring ex-offenders than employers who use criminal justice agencies. About 44 percent of employers who use criminal justices agencies indicate that they are unwilling to hire ex-offenders, while about 36 percent of employers indicate this for those who use private methods of checking. Alternatively put, about 18 percent of employers who use private methods of checking are willing to hire ex-offenders, while the equivalent figure is 9 percent for employers who use criminal justices methods.

<sup>14</sup> It is possible to argue that any effect will be driven by the lower quality information available from the private sources. But the greatest source of inaccuracy is false negatives – which would also mean that employers who use private companies would be less likely to know they hired ex-offenders. As a result, this source of inaccuracy would bias the coefficient on private companies away from zero (more negative).

attitudes towards ex-offenders are strongly correlated with whether the employer checks the criminal backgrounds of their applicants and thus could explain both employer use of background checks and their actual hiring behavior. We used a variety of empirical strategies to examine this potential concern, including estimating similar models for prospective measures of employer hiring of ex-offenders, and whether the negative effect of criminal background checks is larger in magnitude for those employers who indicate that their checking is legally required. The results of these efforts generally supported the idea that the checking has real, negative effects on hiring ex-offenders.

Table 8 provides the predicted hiring rates for employers divided by method and reason for checking using the models reported in Tables 3 and 4. Panel A reports the average finding from the data. On average, 1.1% of the jobs filled in the past year were filled by ex-offenders in firms that check, while 2.2% of the jobs filled in the past year were filled by ex-offenders in firms that do not check. This sizeable difference is consistent with policy efforts to restrict background checks.

But our evidence does not support the claim that the hiring difference is caused by checking itself. Panel B compares the predicted hiring rates by firms that report being required to check versus those firms who check, but are not required to do so. Firms who check, but are not required to do so, hire ex-offenders (2.3%) at the same rate as those firms that do not check. Panel C breaks down those who are legally required to check into those who check using the California public repository and those who report using other sources of information. The results are quite stark. Firms that are legally required to check and use the public repository virtually never hire ex-offenders (.3%). Those who believe they are legally required to check, but use private sources, hired ex-offenders 1.6% of the time. We conclude that the average

effect of background checking on hiring is driven nearly entirely by California statutes that require checking. Efforts to improve ex-offender hiring in California need to be focused on the California statutes which require background checks, and not on background checks themselves.

While interesting from a policy perspective, this finding also raises an interesting puzzle. Why do firms that are not legally required to check do so if they hire ex-offenders at the same rate as firms that do not check? We find evidence that two factors may account for this puzzle. First, some employers check to gain additional information about the ex-offenders whom they may consider hiring to help make risk assessed hiring decisions. Second, some employers may check to protect themselves against possible negligent hiring lawsuits. Those employers who seek additional information about ex-offenders are more likely to check criminal backgrounds than employers who are willing or unwilling to hire these men. They also hire more of these men when they check criminal backgrounds when not legally required to do so. Finally, the level of actual hiring of ex-offenders at the firm is not affected by whether employers use private sources to check criminal backgrounds, whereas use of criminal justice agencies to check records lowers this level of hiring. Since private sources are relatively quick and inexpensive to use, this evidence is consistent with the idea that some employers use these methods of checking to protect themselves against potential negligent hiring lawsuits rather than to completely exclude ex-offenders from employment.

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Table 1  
Means (std. dev.) of Main Variables

	(1) All Firms	(2) Checks Criminal Background	(3) Does not Check Criminal Background
<b>Ex-Offender Hiring Outcomes</b>			
Actual			
Percent of Jobs Filled in Past Year	0.014 (0.087)	0.004 (0.012)	0.021 (0.116)
Percent of New Hires in Past Year	0.047 (0.315)	0.023 (0.096)	0.068 (0.417)
Prospective			
Percent of Jobs That Would Be Filled Currently	0.004 (0.023)	0.005 (0.021)	0.004 (0.026)
Percent of Jobs That Would Be Filled Over Next Year	0.013 (0.050)	0.010 (0.041)	0.015 (0.056)
<b>Checking Characteristics</b>			
Firm Always Checks Criminal Background	0.444 (0.497)	1.000	0.000
Legally Required			
Legally Required to Check	0.194 (0.396)	0.527 (0.500)	0.009 (0.093)
Not Legally Required to Check	0.187 (0.391)	0.473 (0.500)	0.032 (0.176)
Method			
Check with Criminal Justice Agencies	0.141 (0.344)	0.368 (0.483)	0.017 (0.131)
Check with Private Sources	0.187 (0.391)	0.491 (0.501)	0.023 (0.151)
Other Checking Methods	0.120 (0.164)	0.140 (0.257)	0.000 (0.000)
N	604	268	336

Table 2  
Means (std. dev.) of Firm Characteristics and Employer Attitude Variables

	(1) All Firms	(2) Checks Criminal Background	(3) Does not Check Criminal Background
<b>Firm Characteristics</b>			
Industry			
Manufacturing	0.171 (0.377)	0.127 (0.334)	0.206 (0.405)
Retail	0.185 (0.389)	0.193 (0.395)	0.180 (0.385)
Service	0.435 (0.496)	0.498 (0.501)	0.384 (0.487)
Construction	0.034 (0.181)	0.022 (0.146)	0.044 (0.205)
Trans., Comm., and Utilities	0.053 (0.224)	0.062 (0.241)	0.047 (0.211)
Firm Size			
1-19	0.172 (0.377)	0.081 (0.274)	0.244 (0.430)
20-99	0.422 (0.494)	0.396 (0.490)	0.443 (0.498)
100+	0.405 (0.491)	0.522 (0.500)	0.313 (0.464)
Vacancy Rate			
0.000	0.560 (0.497)	0.444 (0.498)	0.653 (0.477)
0.001 – 0.040	0.235 (0.424)	0.300 (0.459)	0.183 (0.387)
> 0.040	0.205 (0.404)	0.256 (0.437)	0.165 (0.371)
% Jobs Unskilled			
0.000	0.221 (0.415)	0.247 (0.432)	0.201 (0.401)
0.001 – 0.200	0.237 (0.426)	0.236 (0.426)	0.238 (0.427)
> 0.200	0.540 (0.499)	0.516 (0.501)	0.558 (0.497)
Central City	0.263 (0.441)	0.255 (0.436)	0.270 (0.445)
Collective Bargaining	0.240 (0.428)	0.317 (0.466)	0.180 (0.384)
Not-for-Profit	0.213 (0.410)	0.313 (0.464)	0.134 (0.341)
Minority-Owned	0.216 (0.412)	0.160 (0.367)	0.262 (0.440)

(table continues)

Table 2 Cont'd	(1)	(2)	(3)
	All Firms	Checks Criminal Background	Does not Check Criminal Background
Black Female Applicants	0.073 (0.143)	0.094 (0.168)	0.056 (0.116)
Black Male Applicants	0.089 (0.159)	0.109 (0.178)	0.073 (0.141)
Latino Applicants	0.338 (0.346)	0.314 (0.328)	0.358 (0.360)
Willingness to Hire			
Willing to Hire	0.197 (0.398)	0.127 (0.334)	0.253 (0.435)
Depends on Crime	0.341 (0.474)	0.407 (0.492)	0.288 (0.453)
Unwilling to Hire	0.399 (0.490)	0.389 (0.488)	0.407 (0.492)
N	604	268	336



Table 3  
Tobit Regressions of Employer Hiring of Ex-Offenders

	A. Percentage of Jobs Filled over Past Year					B. Percentage of New Hires
	(1)	(2)	(3)	(4)	(5)	(6)
Firm Checks Criminal Background	-0.063** (0.032)	-0.053* (0.034)	-0.064** (0.034)	-0.042 (0.036)	-0.073** (0.035)	-0.219* (0.119)
Industry						
Manufacturing	--	0.089 (0.087)	0.049 (0.090)	0.047 (0.092)	0.052 (0.090)	0.401 (0.319)
Retail	--	0.089 (0.086)	0.073 (0.086)	0.062 (0.086)	0.074 (0.086)	0.263 (0.307)
Service	--	0.001 (0.084)	0.001 (0.085)	-0.011 (0.087)	0.002 (0.085)	0.059 (0.304)
Construction	--	0.326*** (0.106)	0.287*** (0.107)	0.274*** (0.108)	0.289*** (0.107)	1.206*** (0.401)
Trans., Comm., and Utilities	--	0.172* (0.099)	0.165* (0.100)	0.142 (0.101)	0.167* (0.100)	0.150 (0.384)
Firm Size						
1-19	--	-0.031 (0.057)	-0.022 (0.057)	-0.013 (0.058)	-0.026 (0.058)	-0.405* (0.238)
20-99	--	-0.001 (0.036)	-0.009 (0.037)	0.007 (0.038)	-0.014 (0.037)	0.019 (0.129)
Vacancy Rate						
0.000	--	0.037 (0.044)	0.048 (0.044)	0.044 (0.045)	0.052 (0.045)	0.120 (0.163)
0.001 – 0.040	--	0.031 (0.049)	0.040 (0.051)	0.028 (0.051)	0.044 (0.051)	0.123 (0.181)
% Jobs Unskilled						
0.000	--	-0.038 (0.043)	-0.012 (0.043)	-0.008 (0.044)	-0.011 (0.043)	0.075 (0.164)
0.001 – 0.200	--	-0.075* (0.043)	-0.070* (0.042)	0.069* (0.043)	-0.072* (0.042)	-0.259* (0.151)
Central City	--	-0.040 (0.038)	-0.054 (0.038)	-0.057 (0.040)	-0.055 (0.039)	-0.241* (0.0143)
Collective Bargaining	--	0.021 (0.040)	0.013 (0.040)	0.024 (0.040)	0.013 (0.040)	-0.099 (0.146)
Not-for-Profit	--	-0.026 (0.048)	-0.015 (0.049)	-0.000 (0.049)	-0.014 (0.049)	-0.052 (0.179)
Minority-Owned	--	0.002 (0.039)	-0.019 (0.040)	-0.027 (0.041)	-0.020 (0.040)	-0.204 (0.148)
Black Female Applicants	--	--	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.002 (0.004)
Black Male Applicants	--	--	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.012*** (0.004)
Latino Applicants	--	--	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.005*** (0.002)

(table continues)

Table 3 Cont'd	A. Percentage of Jobs Filled over Past Year					B. Percentage of New Hires
	(1)	(2)	(3)	(4)	(5)	(6)
Willingness to Hire						
Willing to Hire	--	--	--	0.172*** (.043)	--	--
Depends on Crime	--	--	--	0.092** (0.040)	--	--
Prob > Chi2	0.103	0.004	0.000	0.000	0.000	0.000
N	604	604	604	604	604	587

Notes: Model 5 and 6 recodes firms that checked with other methods to firms that do not check criminal backgrounds.

Standard errors are in parentheses.

\*\*\*, \*\*, and \* indicates statistically significant at the .01, .05, and .10 percent level, respectively.

Table 4  
Tobit Regressions of Employer Hiring of Ex-Offenders by Legal Requirements to Check

	<b>Prospective</b>		<b>Actual</b>	
	Percent of Jobs That Would Be Filled Currently	Percent of Jobs That Would Be Filled Over Next Year	Percent of Jobs Filled in Past Year	Percent of New Hires in Past Year
<b>Models A.</b>	(1)	(2)	(3)	(4)
Firm Checks Criminal Background	0.010 (0.021)	-0.012 (0.024)	--	--
Prob > Chi2	0.000	0.010	--	--
<b>Models B.</b>				
Legally Required				
Legally Required to Check	--	--	-0.137** (0.058)	-0.409** (0.205)
Not Legally Required to Check	--	--	0.034 (0.040)	0.109 (0.142)
Prob > Chi2	--	--	0.000	0.000
<b>Models C.</b>				
Legally Required and Use Criminal Justice Agencies	--	--	-0.266** (0.121)	-0.858** (0.398)
Legally Required and Use Private Agencies	--	--	-0.037 (0.075)	-0.112 (0.252)
Not Legally Required and Use Criminal Justice Agencies	--	--	0.017 (0.086)	0.004 (0.175)
Not Legally Required and Use Private Agencies	--	--	0.028 (0.086)	0.175 (0.299)
Prob > Chi2	--	--	0.000	0.000
N	604	604	604	587

Notes: All equations include all control variables listed in Table 3, Model 3.

Reference variable for all models is firm did not check criminal background of applicants.

Standard errors are in parentheses.

\*\*\*, \*\*, and \* indicates statistically significant at the .01, .05, and .10 percent level, respectively.

Table 5  
Means of Criminal Background Checks by Employers Stated Willingness to Hire Ex-Offenders

	Willing to Hire	Depends on Crime	Unwilling to Hire
A. Full Sample			
Firm Checks Criminal Background	0.286 (0.454)	0.531 (0.500)	0.433 (0.497)
N	119	206	279
B. Checked Criminal Background Sample			
Method			
Check with Criminal Justice Agencies	0.154 (0.323)	0.390 (0.472)	0.429 (0.474)
Check with Private Sources	0.615 (0.505)	0.484 (0.494)	0.452 (0.481)
Check with Other Methods	0.231 (0.285)	0.136 (0.226)	0.119 (0.186)
N	35	109	121

Table 6

Tobit Regressions of Employer Hiring of Ex-Offenders: Sample Stratified by Employer Stated Willingness to Hire Ex-Offenders

	Sample Stratified by Employer Willingness to Hire Ex-Offender:					
	<b>Willing to Hire</b>		<b>Depends on Crime</b>		<b>Unwilling to Hire</b>	
	Percent of Jobs Filled (1)	Percent of New Hires (2)	Percent of Jobs Filled (3)	Percent of New Hires (4)	Percent of Jobs Filled (5)	Percent of New Hires (6)
Model A. Legally Required						
Legally Required to Check	-0.174 (0.148)	-0.164 (0.143)	-0.015 (0.020)	-0.125 (0.225)	-0.212 (0.206)	-0.119 (0.372)
Not Legally Required to Check	0.131 (0.098)	0.085 (0.207)	0.032** (0.014)	0.235* (0.125)	0.028 (0.153)	-0.100 (0.353)
Model B. Method of Checking						
Check with Criminal Justice Agencies	-0.449** (0.198)	0.444** (0.221)	-0.001 (0.022)	-0.177 (0.245)	-0.123 (0.204)	-0.259 (0.591)
Check with Private Sources	-0.146 (0.112)	-0.186 (0.174)	0.007 (0.015)	0.069 (0.168)	-0.079 (0.170)	-0.203 (0.303)
N	119	119	206	206	279	279

Notes: All equations include all control variables listed in Table 3, Model 3.

Reference variable for all equations is firm did not check criminal background of applicants.

Standard errors are in parentheses.

\*\*\*, \*\*, and \* indicates statistically significant at the .01, .05, and .10 percent level, respectively.

Table 7  
Tobit Regressions of Employer Hiring of Ex-Offenders for Method Used to Check Criminal Backgrounds

	A. Full Sample		B. Checked Criminal Background Sample	
	Percent of Jobs Filled in Past Year	Percent of New Hires in Past Year	Percent of Jobs Filled in Past Year	Percent of New Hires in Past Year
	(1)	(2)	(3)	(4)
Checked with Criminal Justice Agencies	-0.142** (0.063)	-0.363* (0.221)	-0.024** (0.011)	-0.165* (0.094)
Checked with Private Sources	-0.009 (0.042)	-0.070 (0.154)	--	--
N	604	587	237	237

Notes: All equations include all control variables listed in Table 3, Model 3.

The reference variable in Models 1 and 2 is firm did not check.

The reference variable in Models 3 and 4 is checked with private sources.

Standard errors are in parentheses.

\*\*\*, \*\*, and \* indicates statistically significant at the .01, .05, and .10 percent level, respectively.

Table 8  
Predicted Means in Hiring Ex-Offenders by Whether and How Employers Check Criminal Background of Applicants

	Percent of Jobs Filled in Past Year
<b>Actual Mean</b>	0.014
<b>Panel A.<sup>1</sup></b>	
Checks Criminal Background	0.011
Does Not Check	0.022
<b>Panel B.<sup>2</sup></b>	
Legally Required to Check	0.010
Not Legally Required to Check	0.023
Does Not Check	0.021
<b>Panel C.<sup>3</sup></b>	
Legally Required and Use Criminal Justice Agencies	0.003
Legally Required and Use Private Agencies	0.016
Not Legally Required and Use Criminal Justice Agencies	0.021
Not Legally Required and Use Private Agencies	0.022
Does Not Check	0.021

Notes: <sup>1</sup>Predicted means derived from model estimates from Table 3, Model 5.

<sup>2</sup>Predicted means derived from Table 4, Model B.

<sup>3</sup>Predicted means derived from Table 4, Model C.

Table A.1  
Logit Regressions of Firm Checks Criminal Backgrounds of Applicants

	(1)	(2)
Willingness to Hire		
Willing to Hire	-0.700*** (.0232)	-0.631*** (.0233)
Depends on Crime	0.364** (0.162)	0.362** (0.164)
Industry		
Manufacturing	--	-0.919** (0.470)
Retail	--	-0.580 (0.452)
Service	--	-0.625 (0.426)
Construction	--	-1.007* (0.569)
Trans., Comm., and Utilities	--	0.408 (0.574)
Firm Size		
1-19	--	-1.573*** (0.335)
20-99	--	-0.574*** (0.212)
Vacancy Rate		
0.000	--	-0.712*** (0.251)
0.001 – 0.040	--	-0.316 (0.296)
% Jobs Unskilled		
0.000	--	0.318 (0.251)
0.001 – 0.200	--	-0.237 (0.236)
Central City	--	-0.325 (0.218)
Collective Bargaining	--	0.265 (0.240)
Not-for-Profit	--	0.748*** (0.262)
Minority-Owned	--	-0.070 (0.241)
Black Female Applicants	--	0.007 (0.007)
Black Male Applicants	--	0.011* (0.007)
Latino Applicants	--	-0.001 (0.00f3)
Prob > Chi2	0.000	0.000
N	604	604

Note: Standard errors are reported in parentheses. Reference variable for industry is FIRE. \* p < .10; \*\* p < .05; \*\*\* p < .01.



Table A.2

Means (std. dev.) of Variables by Legal Requirement to Check

	Legally Required to Check	Not Legally Required	Legally Required and Criminal Justice Agency	Legally Required and Private Source	Not Legally Required and Criminal Justice Agency	Not Legally Required and Private Source
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Firm Characteristics</b>						
Industry						
Manufacturing	0.025 (0.157)	0.189 (0.394)	0.000 (0.000)	0.086 (0.284)	0.200 (0.410)	0.186 (0.392)
Retail	0.117 (0.322)	0.241 (0.430)	0.031 (0.175)	0.229 (0.426)	0.150 (0.366)	0.186 (0.392)
Service	0.742 (0.440)	0.319 (0.468)	0.906 (0.294)	0.486 (0.507)	0.350 (0.489)	0.371 (0.487)
Construction	0.008 (0.091)	0.026 (0.159)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.043 (0.204)
Trans., Comm., and Utilities	0.050 (0.219)	0.095 (0.294)	0.031 (0.175)	0.086 (0.284)	0.150 (0.366)	0.114 (0.320)
Firm Size						
1-19	0.078 (0.269)	0.087 (0.283)	0.082 (0.276)	0.029 (0.169)	0.158 (0.375)	0.071 (0.259)
20-99	0.379 (0.487)	0.409 (0.494)	0.377 (0.489)	0.286 (0.458)	0.368 (0.496)	0.343 (0.478)
100+	0.543 (0.500)	0.504 (0.502)	0.540 (0.502)	0.686 (0.471)	0.474 (0.513)	0.586 (0.496)
Central City	0.233 (0.424)	0.241 (0.430)	0.219 (0.417)	0.257 (0.443)	0.300 (0.471)	0.257 (0.440)
Collective Bargaining	0.435 (0.497)	0.209 (0.408)	0.508 (0.504)	0.235 (0.431)	0.211 (0.419)	0.257 (0.440)
Not-for-Profit	0.525 (0.501)	0.129 (0.337)	0.703 (0.461)	0.200 (0.406)	0.200 (0.410)	0.143 (0.352)
Minority-Owned	0.167 (0.374)	0.138 (0.346)	0.203 (0.406)	0.171 (0.382)	0.150 (0.366)	0.086 (0.282)
Black Female Applicants	0.126 (0.188)	0.066 (0.128)	0.130 (0.198)	0.153 (0.205)	0.081 (0.179)	0.062 (0.112)
Black Male Applicants	0.109 (0.174)	0.095 (0.148)	0.073 (0.126)	0.167 (0.224)	0.097 (0.170)	0.098 (0.150)
Latino Applicants	0.312 (0.310)	0.333 (0.343)	0.310 (0.307)	0.314 (0.300)	0.410 (0.348)	0.287 (0.320)
<b>Willingness to Hire</b>						
Willing to Hire	0.083 (0.277)	0.181 (0.386)	0.094 (0.294)	0.057 (0.236)	0.100 (0.308)	0.200 (0.403)
Depends on Crime	0.441 (0.499)	0.388 (0.489)	0.453 (0.502)	0.486 (0.507)	0.450 (0.510)	0.400 (0.493)
Unwilling to Hire	0.433 (0.497)	0.387 (0.489)	0.391 (0.492)	0.429 (0.502)	0.450 (0.510)	0.314 (0.468)
N	120	116	64	35	20	70

Table A.3

Means (std. dev.) of Actual Hiring Measures of Ex-Offenders by Employer Willingness to Hire

<b>Ex-Offender Hiring Outcomes</b>	(1) Willing to Hire	(2) Depends on Crime	(3) Unwilling to Hire
Actual			
Percent of Jobs Filled in Past Year	0.028 (0.144)	0.010 (0.091)	0.007 (0.019)
Percent of New Hires in Past Year	0.070 (0.236)	0.051 (0.245)	0.037 (0.409)
N	119	206	279