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LABOR MARKET ENTRY, CRIME, AND POLITICS[‡]

The Role of Broad-Based Employee Ownership Opportunities in Prisoner Reentry[†]

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Each year, more than 600,000 individuals are released from prison. Over the past 40 years, the United States has seen a surge in its incarcerated population driven mostly by public policy choices, not by changes in criminal behavior (Raphael and Stoll 2013). US incarceration rates are inefficiently high, suggesting that the marginal prisoner is a less serious offender (Raphael 2011). At the same time, the incarceration boom has largely affected marginalized communities. While Hispanics and blacks make up an estimated 31 percent of the population, they compose more than 50 percent of the incarcerated population. The lifetime likelihood of an incarceration for boys born in 2001 is 32.2 percent for blacks and 17.2 percent for Hispanics, but only 5.9 percent for whites. Numerous social costs of an incarceration have been documented to the individual, family, and community (see Cox 2018, 2019). Many of these costs stem from the emotional and economic instability that the shock of an incarceration places on a household. Not only is incarceration financially costly to individuals and families during the incarceration, but there may be long-term costs upon release due to stigmatization, legal debt accumulation, poor job prospects, and disruption of family bonds (Cox 2019). All of this could lead to greater economic instability, to racial inequality, and potentially to reoffending (for a discussion of the material and emotional hardships after prison, see Western et al. 2015).

Within a simplistic rational choice model of crime, individuals commit crime when the benefits (i.e., illegal wages) outweigh the costs (i.e., forgone legal earnings and expected punishment). One implication of this model is that people will participate in socially unacceptable behaviors when their opportunity costs (i.e., legal wages) to do so are low. Therefore, the labor market is an important factor in the subsistence of criminal behavior and successful reintegration back into society. Numerous studies have found that wages and employment can significantly lower participation in criminal activities (for a discussion, see Cox (2016); also see evidence from Fernandez, Holman, and Pepper (2014) on living wage and crime). Legitimate work may help formerly incarcerated individuals to reestablish trust, offset the stigma of their socially unacceptable behavior, and abstain from crime. However, it is often purported that it will take a good job to enable an individual to move away from a life of crime (Cox 2016).

This paper will investigate the effect of employment quality, as measured by employment at a firm offering employee stock ownership plans (ESOPs), on the annual earnings, hours worked, and criminal behavior of a sample of formerly incarcerated young workers. ESOPs are the most common form of broad-based employee ownership; prior research finds that they increase firm productivity, wages, household net wealth, and employment stability (Kruse 2016). To my knowledge, this is the first paper to consider the role of broad-based

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employee ownership within a prisoner reentry framework.

I. Employment, ESOPs, and Reentry

Good jobs are hard to come by for the formerly incarcerated given their low skill level and the stigmatizing effect of a criminal record (Western et al. 2015). On the demand side, an incarceration can lead to inferior job prospects because of employers' unwillingness to take on the greater risk (both production and legal) from employing this population (Holzer, Raphael, and Stoll 2003; Raphael 2014). On the supply side, incarceration can depress labor market outcomes in three ways: stigma, the acquisition of human capital, and the attainment of social capital, all three of which could be considered depreciation of legal human capital (Cox 2016). Previous literature finds that incarceration marks individuals as untrustworthy, making it hard for them to find jobs (Waldfogel 1994). In addition, the formerly incarcerated with felony records may be temporarily prohibited from licensed or professional positions and, in some states, from public sector employment. Incarceration may also cause a deterioration in the physical and mental health of individuals exposed to an incarceration and may promote behaviors that aid in survival within a prison environment but are unsuited for work settings. Finally, offenders are often hindered from building social capital that could improve legitimate employment opportunities while behind bars. In this view, incarceration creates a barrier to the development of relationships that could aid in connecting workers to employers but reinforces criminal networks that facilitate criminal behavior. Within segmented labor market theory, incarceration will lead to further attachment to the secondary labor market, which consists of low-wage jobs that are occupied by workers who face discrimination and who have unpredictable work histories. Employment in the primary labor market (i.e., work in large firms and/or unionized employment, which usually offers better, higher-paying jobs with greater possibilities for promotion, better working conditions, and more job stability) is largely out of reach for these individuals.

Nevertheless, there is a third reason that the formerly incarcerated will find it challenging to find good employment: rising income inequality. Coinciding with mass incarceration, there has been an erosion in the middle class and greater economic inequality throughout the United States and the world. Piketty (2014) argues that the main driver of this inequality is that the returns to capital outpace the rate of economic growth (labor income). The United States, in particular, has seen increases in inequality resulting from very large returns to managerial labor income (Picketty and Saez 2003, Piketty 2014). Autor and Scarborough (2008) and Autor (2010) also document the "polarization" of job opportunities such that high-skilled workers acquire high-quality (high-wage) jobs and low-skilled workers are relegated to low-quality (low-wage) employment.

Blasi, Freeman, and Kruse (2014) argues that broad-based employee ownership is one mechanism that could help to restore capitalism as envisioned by the founding fathers of the United States, to restore the middle class, and to decrease economic inequality. As aforementioned, ESOPs are the most common form of broad-based employee ownership. They are codified as an Internal Revenue Code 401(a)-qualified defined contribution retirement savings plan. ESOPs are typically used to transfer ownership from departing owners of successful companies to their employees as a mechanism to increase worker productivity and reward employees. They are almost entirely employer contributions; unlike in the case of 401(k) plans, employees typically do not have to purchase their company shares. Usually, all full-time employees age 21 or older who have worked at the company for six months to a year participate in the plan, although some allow for younger employee participation. Employees have to become vested within three to six years. ESOP companies receive annual outside valuations to determine the market value of their stock. If a vested employee leaves the company, the company purchases the shares from the departing employee at the market value. ESOP companies typically pay higher wages and offer other nonwage benefits and retirement savings opportunities like 401(k) plans. Shared capitalism companies typically foster environments where employees can "participate in workplace decision-making and training programs [and] have high job security and low levels of supervision" (Kruse, Blasi, and Park 2010, p. 67). Overall, firms offering shared capitalism in general, and ESOPs in particular, seem to be

beneficial places to work: they not only provide more cooperative work environments, higher pay, and greater job security but also offer the opportunity to improve one's assets. Asset accumulation is an often-overlooked but important topic within the reentry literature. Effective reentry efforts should encourage the ownership of homes, businesses, stocks, savings accounts, and real estate beyond the primary residence.

It is clear that companies owned, in whole or in part, by workers may address some of the barriers ex-offenders face and could potentially help to reduce asset poverty among this population. However, the question remains as to whether marginalized groups, such as the formerly incarcerated and their families, have access to the benefits attached to employment at these firms.

II. Data and Methods

The 1997 National Longitudinal Survey of Youth (NLSY97) is used to investigate the relationship between ESOP firm employment, annual earnings, weekly hours worked, and criminal behavior (Bureau of Labor Statistics 2019). At the time of this analysis,[1] there were 17 waves of the survey; the baseline survey was collected in 1997 on youthful respondents born between 1980 and 1984, with follow-up every year through 2011 and every two years thereafter. The NLSY97 is an ideal data source because it has information on employment benefits, including employment at an ESOP firm, employment history, earnings, and incarceration. There are 8,984 individuals initially interviewed (51 percent male and 49 percent female), a number that includes an oversample of black and Hispanic respondents. In addition to detailed information on employment and incarceration status, the survey also collects data on human capital (i.e., education, training, achievement scores, and health), crime, parents, childhood and family experiences, household, marital status, and children.

Understanding the role of ESOP employment on labor market outcomes and economic well-being among the formerly incarcerated is not straightforward due to the potential complication of selection bias. Selection bias can occur at the point of incarceration if incarcerated individuals have inferior cognitive and noncognitive skills, making them less desirable employees and making it difficult to compare incarcerated individuals with nonincarcerated individuals. Therefore, I restrict the sample to employed formerly incarcerated individuals who are age 18 or older, and who (i) have never reported working at an ESOP firm and (ii) report working for an ESOP firm after their first adult incarceration. I also restrict the analysis to time periods subsequent to the first adult incarceration; therefore, individuals who report working for an ESOP firm as youths are excluded from the analysis. It is clear that these restrictions trade some external validity for greater internal validity: the final sample consists of 437 unique observations (209 non-ESOP employees and 128 ESOP employees) over the years 1998 to 2015.

To address potential selection bias between ESOP employees and non-ESOP employees, the following regression is estimated using fixed effects:

$$(1)\ E_{jit} = \gamma_{ji} + \pi_{jt} + \partial_j ESOP_{it} + \Gamma_j + \delta_j + \varepsilon_{jit},$$

where E is a vector of dependent variables for equation (1) measuring outcome j equal to the log of annual earnings, the log of hours worked per week, arrest status, conviction status, felony conviction status, and incarceration status for individual i at time t; γ_{ji} are the individual fixed effects for outcome j; and π_{jt} are the year fixed effects for outcome j. The term $ESOP_{it}$ is the treatment variable, equal to one during periods of employment at an ESOP firm and zero otherwise; Γ_j are industry fixed effects, δ_j are occupation fixed effects, and ε_{jit} is the error term. I also augment equation (1) with location (i.e., census region); type of city (i.e., urban, rural, or unknown); and birth-by-year, region-by-year, and urban-by-year fixed effects.

III. Results

Table 1 shows the baseline (1997) summary statistics for the sample. In general, the ESOP group has a greater proportion of whites, a lower family income at baseline, a higher proportion of women, more educated fathers, and slightly less educated mothers. The ESOP group also has a greater proportion of individuals born in 1980

[1] Wave 18 was not released until December 5, 2019.

TABLE 1—BASELINE SUMMARY STATISTICS

Variable	Non-ESOP		ESOP		Normalized differences
	Mean	SD	Mean	SD	
Race					
White	0.456	0.499	0.516	0.502	0.119
Black	0.298	0.458	0.250	0.435	−0.107
Hispanic	0.227	0.419	0.211	0.410	−0.038
Other	0.019	0.138	0.023	0.152	0.028
Women	0.165	0.372	0.219	0.415	0.137
Year of birth					
1980	0.214	0.411	0.273	0.447	0.140
1981	0.236	0.425	0.227	0.420	−0.023
1982	0.201	0.401	0.195	0.398	−0.013
1983	0.165	0.372	0.141	0.349	−0.068
1984	0.184	0.388	0.164	0.372	−0.054
ASVAB math and verbal percentile	30.922	25.296	32.617	25.315	0.067
Family income	51,336.130	50,298.280	48,722.590	39,838.590	−0.058
Income to poverty ratio	223.757	250.365	189.922	151.182	−0.164
Crime/risky behavior					
Property	0.540	0.499	0.568	0.497	0.055
Drug	0.168	0.375	0.136	0.344	−0.090
Stole	0.586	0.493	0.528	0.501	−0.116
Violent	0.398	0.490	0.424	0.496	0.053
Used alcohol	0.565	0.497	0.568	0.497	0.006
Used marijuana	0.419	0.494	0.432	0.497	0.027
Gang member	0.142	0.350	0.168	0.375	0.071
Ran away	0.279	0.449	0.280	0.451	0.002
Highest grade completed					
Biological father	10.000	4.671	10.673	4.050	0.154
Biological mother	11.704	6.006	11.395	3.554	−0.063
Parental incarceration					
Father prison	0.160	0.367	0.117	0.322	−0.126
Mother prison	0.032	0.176	0.042	0.201	0.052
Census region					
Northeast	0.120	0.325	0.117	0.323	−0.008
North central	0.223	0.417	0.367	0.484	0.319
South	0.421	0.494	0.352	0.479	−0.142
West	0.236	0.425	0.164	0.372	−0.181
Urban-rural					
Rural	0.233	0.423	0.297	0.459	0.145
Urban-rural	0.728	0.446	0.633	0.484	−0.206
Unknown	0.039	0.194	0.070	0.257	0.139
Observations	309		128		

Notes: Under family income, *N* for non-ESOP is 235, and *N* for ESOP is 103. Under crime/risky behavior, *N* for substance use and ran away variables is 308 for non-ESOP, and *N* for ESOP for all variables in this section is 125. Under highest grade completed, biological father, *N* for non-ESOP is 249, and *N* for ESOP is 110. Under highest grade completed, biological mother, *N* for non-ESOP is 280 and *N* for ESOP is 119. Under parental incarceration, *N* for fathers of non-ESOP is 281 and *N* for mothers of non-ESOP is 282; *N* for fathers and mothers of ESOP is 120.

and 1981, and they scored roughly two percentiles higher on the math and verbal portion of the Armed Services Vocational Aptitude Battery (ASVAB). Moreover, ESOP employees are slightly more likely to have committed violent crime and property crime, to smoke marijuana, to be a gang member, and to have their mothers incarcerated. Finally, ESOP employees are more likely to live in the north central census region, less likely to live in the western region, and more likely to live in rural areas than non-ESOP employees. In terms of sample balance, all

Table 2—Fixed Effects Model of Effect of ESOP Employment on Earnings, Weekly Hours Worked, and Criminal Behavior

Variables	log annual earnings (1)	log hours worked per week (2)	Arrest (3)	Conviction (4)	Felony conviction (5)	Incarceration (6)
ESOP employment status	0.2538	0.0877	−0.0950	−0.1122	−0.0330	−0.1226
	(0.094)	(0.049)	(0.0293)	(0.0251)	(0.012)	(0.0280)
Observations	2,307	2,307	2,307	2,307	2,306	2,307
R^2	0.2692	0.1807	0.2039	0.216	0.0959	0.285
Number of unique observations	437	437	437	437	437	437

Notes: Clustered standard errors are in parentheses. All models include individual fixed effects, year fixed effects, industry fixed effects, occupation fixed effects, census region fixed effects (i.e., northeast, north central, south, or west), type of city fixed effects (i.e., urban, rural, or unknown), birth year–by–year fixed effects, region-by-year fixed effects, urban-by-year fixed effects, and a constant.

baseline characteristics except for one (north central census region) have a normalized difference less than 0.25 (the maximum normalized distance is only 0.319), suggesting the sample is balanced on the displayed baseline observable characteristics.

Table 2 presents the fixed effects model presented in equation (1) for the log of annual earnings (model 1); the log of hours worked per week (model 2); and binary indicator variables for arrest (model 3), conviction status (model 4), felony conviction status (model 5), and incarceration status (model 6). The results indicate that ESOP employment is significantly associated with a roughly 25.4 percent increase in annual earnings, a roughly 8.8 percent increase in weekly hours worked, a 9.5 percentage point decrease in the likelihood of arrest, an 11.2 percentage point decrease in the likelihood of being convicted of a crime, a 3.3 percentage point decrease in the likelihood of being convicted of a felony, and a 12.3 percentage point decrease in the likelihood of being incarcerated.

IV. Conclusion

Formerly incarcerated individuals who are employed at firms offering ESOPs have higher annual earnings and work more hours per week than formerly incarcerated individuals who do not work at ESOP firms. The formerly incarcerated who work at ESOP firms are also less likely to participate in criminal behavior as measured by arrests, conviction, and incarceration. This study provides preliminary evidence that employee-owned firms may play an important role in successfully reintegrating formerly incarcerated individuals back into society. It also provides additional support for policies seeking to encourage employee ownership, such as the Main Street Employee Ownership Act of 2018. However, more research is needed to improve identification of the effect, to determine whether access to ESOP employment among the formerly incarcerated varies by race and gender, and to determine the precise mechanism through which ESOP employment works to lower criminal behavior.

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