An Assessment of the Effectiveness of Prison Work Release Programs on Post-Release Recidivism and Employment

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ABSTRACT

This study evaluates the effectiveness of prison-based work release centers in terms of reducing post-prison recidivism and employment and determines whether privately operated work release centers produce different outcomes compared to state operated programs under the Florida Department of Corrections (FDC). Work release is a community transition program in which prison inmates are housed in community-based facilities and work in the community during normal business hours. While the FDC originally implemented work release programs four decades ago, there has been little empirical research on its effectiveness in promoting post-release employment and reducing recidivism. While there are a few exceptions, the existing literature reporting research conducted to determine the effectiveness of work release can be summarized as largely outdated, lacking methodological rigor, and has failing to examine differences in outcomes across publicly versus privately operated work release facilities.

Through support from the National Institute of Justice (NIJ), this study uses data from the Florida Department of Corrections (FDC) through a researcher-practitioner partnership funded project to assess the impact of work release programs on the post-release outcomes of employment and various indicators of recidivism, and to determine if there are differential outcomes across privately operated versus state run programs. First, we examine the differences in post-prison recidivism outcomes using several different measures as well as employment of 27,463 inmates released from Florida's prison between 2004 and 2011 who completed a work release program with 15,911 non-participants who met the criterion for placement in a work release program but were not exposed during their incarceration. Second, we examine comparisons of these same outcomes between inmates who completed work release in FDC-operated work release facilities versus privately contracted facilities. Third, we examine whether

the impact of work release programs on post-prison outcomes varies across inmates with different characteristics, including gender, race, age at prison release, offense types, and post-prison release supervision.

Findings indicate that inmates released from work release facilities compared to the control group of non-participants have significantly lower levels of recidivism as measured by arrest for any new crime, arrest for a new felony offense, and conviction for a new felony offense, however, they have higher rates of returning to prison. Additionally, work release is a highly significant influence on the likelihood of obtaining employment within the first quarter after release. When considering the type of work release facility inmates are exposed to, i.e., public versus private, we find no meaningful differences in terms of recidivism; however, inmates who completed a work release program in a privately operated facility are significantly more likely to find employment when returning to their communities. Finally, we examined whether differences existed in the relative effect of work release on the reentry outcomes of recidivism and employment across several characteristics of inmates. The results indicate there are meaningful variations in the outcomes across various demographic groups, offense types, and post-prison supervision status.

The policy implications of this research are that the expansion of the use of prison-based work release programs can have a positive impact on reducing the overall recidivism rates of released prisoners and can significantly improve their post-prison employment potential.

INTRODUCTION

The Florida Department of Corrections (FDC) reports that 27% or nearly 1 in 3 inmates released from a Florida prison returns to custody within three years of release (Florida Department of Corrections (FDC), 2013a). The state of Florida spends an average of 2.1 billion dollars per year on corrections costs (FDC, 2013a). With a large number of inmates being rearrested after release from prison and the additional burden of high correctional costs, it is important to identify options that both reduce recidivism and lower correctional budget expenditures. Work release programs are one option, along with prison-based educational and vocational services, substance abuse treatment, and other programs as well as reentry services that have been used to attempt to reduce the likelihood of recidivism. In turn, these programs are intended to improve inmates' likelihood of gaining employment post-release, which has been shown to be a protective factor against future involvement in crime (Crutchfield & Pitchford, 1997; Uggen, 1999, 2000).

Work release was established as a prison-to-community transition program in Florida approximately 40 years ago. Eligible inmates are housed in a community work release facility during non-work hours and are employed in the community during the day. This program provides inmates with opportunities to enhance their job skills, re-establish ties with their family and community, and build financial savings prior to release. In 2001, 29 state correctional agencies reported that 39,705 inmates were placed in work release programs in the United States, with Florida having the second highest number with 4,885 placements (Camp & Camp, 2002). Between 2004 and 2011, approximately 30,000 inmates were placed in both contract ("private") and state-operated work release centers in Florida and the number of inmates housed in these facilities has increased by 71.2% since June 2000.

The current study assesses Florida's work release programs and their impact on recidivism and post-release employment outcomes. We examine a recent cohort of 201,447 Florida prisoners released between 2004 and 2011 of which 27,463 completed work release and 15,991 are in a control group of inmates who were eligible for participation in work release but did not enter a program prior to their release from incarceration. This large sample size allows for greater statistical power than available case sizes in prior studies and provides a more precise comparison of work release participants to inmates not exposed to work release programs. The analysis includes multiple measures of recidivism to more fully assess the effects of work release programming on recidivism and controls for a host of demographic variables, current offense(s), prior criminal record, institutional behavior and adjustment, and mental and substance abuse issues that have been shown by prior research to impact recidivism outcomes (Anderson, Schumacker, & Anderson 1991; Kubrin & Stewart 2006; Langan & Levin 2002; Uggen 2000). The present study will also expand on the existing knowledge of work release programs by comparing outcomes among inmates exposed to contract versus state operated work release facilities. These comparisons will be made to both extend what is known about work release and to better inform policy.

This paper begins by examining the existing work release literature to provide background information and the current state of the research in this area. It will make use of relevant findings to develop and answer research questions concerning the effects of work release on recidivism and post-release employment outcomes. Finally, directions for future research as well as policy implications will be discussed.

WHAT IS WORK RELEASE?

Work release programs are community transitional programs available to prisoners that a corrections agency determines present a relative lower public safety risk to the outside community than those placed in more secure facilities, have acceptable work skills to gain employment, and will successfully transition into the community upon prison release. In a work release program, a correctional institution allows eligible prisoners to leave the premises of the facility to receive paid employment somewhere in the surrounding community. Once a prisoner completes a day of work, they must return to the work release facility where they remain in the custody of the correctional institution for the night (McNeil, 2009). These programs allow prisoners to have time outside of the prison environment and to have paid work while still technically being incarcerated.

While work release programs began in the early 1900s (Ayer, 1970), they expanded and increased in popularity during the 1970s along with the Civil Rights movement (Turner & Petersilia, 1996). Despite this growth, they lost popularity in the 1980s when there was a shift in public opinion from policies that favored the rehabilitation of prisoners to more punitive policies. This shift reflected a view that "nothing works" in the realm of correctional programs to reduce recidivism (Martinson, 1974). Despite the negative view of the potential effectiveness of correctional programming, work release programs continue to provide an alternative to traditional prisons. For example, there are 32 work release centers in Florida and approximately 3.2% of the total Florida prison population participates in work release programming prior to release during any given year (FDC, 2013a).

Work release programs in Florida enable inmates to acquire some monetary savings prior to their release from the prison system, improve their job skills to make them more employable, and help re-establish ties with their families and community (McNeil, 2009). Work release

programs also function to help counteract the negative effects of institutionalization such as low self-esteem and feelings of being ostracized and isolated from the community (Cheliotis, 2008). Among the various goals of work release programming, three of the most important and prioritized goals are reducing recidivism, increasing post-release employment opportunities, and avoiding unnecessary costs to taxpayers.

ASSESSMENTS OF THE EFFECTIVENESS OF WORK RELEASE PROGRAMS

In 2009, the FDC assessed the effectiveness of work release programs on reducing recidivism and found that "inmates who were released from a work release center were five percent less likely to recidivate when compared to offenders in the state prison system" (FDC, 2009, p. 3). Several researchers have also examined the effect of work release programs on recidivism (Duwe, 2014; Jeffrey & Woolpert, 1973; Turner & Petersilia, 1996; Waldo & Chiricos, 1977), yet the area remains understudied and research findings are generally outdated and lack conclusiveness as to whether these programs are effective at reducing recidivism.

To elaborate, work release programs have been shown to have a positive impact on post-release employment opportunities for inmates with a work release placement (Duwe, 2014; Jung, 2014; Witte, 1977) and have been found to be less costly to operate (Austin & Krisberg, 1982; Duwe, 2014; Turner & Petersilia, 1996). In Florida, work release inmates cost taxpayers $29.73 per inmate, per day compared to the average daily rate for all other FDC facilities (excluding private prisons) of $43.03 (FDC, 2013a). Pursuant to Florida law and FDC rules, up to 55% of an inmate's earnings while on work release are dedicated to the payment of his or her subsistence while housed in a work release facility. These contributions toward the cost of incarceration account for much of the disparity between the per diem costs of all FDC facilities and those of work release centers.

Empirical evaluations of work release programs have included assessments of the effects of inmate participation in a work release program on recidivism, post-release employment opportunities, and prisoner attitudes (Duwe, 2014; Jeffrey & Woolpert, 1974; Jung, 2014; Rudoff & Esselstyn, 1973; Turner & Petersilia, 1996; Waldo, Chircos, & Dorbin 1973; Waldo & Chiricos 1977; Witte, 1977). A smaller number of studies have examined the cost effectiveness of work release programs (Duwe, 2014; Turner & Petersilia 1996). This study will focus on completion, as opposed to participation, in work release as a means to decrease recidivism and improve post-release employment outcomes.

Past studies examining the effectiveness of work release typically use recidivism as the primary outcome measure (Duwe, 2014; Jeffrey & Woolpert, 1974; Rudoff & Esselstyn, 1973; Turner & Petersilia, 1996; Waldo & Chiricos 1977; Witte, 1977). These studies have measured recidivism in a variety of ways, including rearrest, reconviction, and the amount of time between release and rearrest. Post-release employment opportunities are studied less frequently, and generally examine post-release wage earnings and job availability to determine the difference in post-release employment opportunities for inmates who participated in work release compared to inmates who did not participate in work release (Drake, 2007; Duwe, 2014; Jung 2014; Witte, 1977). Finally, past studies have looked at work release expenditures in specific states (Drake, 2007; Duwe, 2014; Turner & Petersilia, 1996) to determine the cost effectiveness of these programs.

The current literature assessing the effectiveness of work release can be characterized as limited and dated. Many of the studies that are considered seminal works in this area were conducted nearly four decades ago. With the significant expansion of prison populations and changes in technology, the applicability of these studies to correctional systems today may be

diminished. These studies tend to lack methodological rigor and make use of small sample sizes. The present study seeks to bring new and more comprehensive findings to the existing literature on the effects of work release programs on recidivism and post-release employment opportunities by analyzing a recently incarcerated and released population of inmates in Florida's large state prison system.

Work Release and Recidivism

Studies of the effectiveness of work release programs on reducing recidivism have shown mixed results. This is likely due to significant variation across studies in how recidivism is conceptualized and measured, as well as the difficulty in identifying a control group for comparison in many of the studies (Katz & Decker, 1982). There are only five empirical studies of the influence of work release participation upon recidivism published in peer reviewed journals. While some meta-analyses have reviewed a greater number of studies, they also include unpublished works from state correctional agencies and doctoral dissertations (Cheliotis, 2008; Katz & Decker, 1982), or include studies that combine work release with other types of vocational training programs (Seiter & Kadela, 2003) in their analyses.

Some studies find no significant reduction in recidivism as measured by rearrest or reconviction for those who participate in work release compared to those who do not (Turner & Petersilia, 1996; Waldo & Chiricos, 1977). Witte (1977) found no difference in recidivism between work release and non-work release inmates; however, when work release inmates returned to prison, they were more likely to return for less serious misdemeanor crimes while those who did not participate in work release were more likely to return for more serious felonies. In addition, inmates who participate in work release programs have been shown to incur more institutional infractions for law violations (forgery, theft, etc.), drug or alcohol

possession, escape, curfew violation, fighting, failure to work, and failure to report income than inmates who do not participate in work release (Duwe, 2014; Turner & Petersilia, 1996). Additionally, work release participants are significantly more likely to return to prison as a result of these infractions than inmates who do not participate in work release. Despite these findings, these studies do not take success or failure in the work release program into account. The authors do not discuss whether inmates completed the work release program or were removed prior to the expiration of their sentence. The present study will address this by examining inmates who successfully completed a work release program.

Other studies have found favorable results for work release programs. One study showed that work release participants in a county jail had fewer arrests post-release than those who did not participate in work release (Jeffrey & Woolpert, 1973). This study focused only on a work release program in a county jail, but there has also been support for work release in a prison context. Rudoff and Esselstyn (1973) found that twice as many inmates who did not participate in work release were rearrested, and returned to prison an average of 20 days sooner than those who did participate in work release. It should be noted that the authors did not test for whether this is a statistically significant difference between the two groups.

Promising outcomes have also been found for the effectiveness of work release programs at reducing recidivism as measured by rearrest, reconviction, reincarceration, or supervision revocation for a technical violation (Duwe, 2014). In a meta-analysis of studies of work release, Cheliotis (2008) demonstrated that work release can be effective in decreasing returns to prison. He was also able to conclude that work release shows promise in lowering reconviction rates and, when paired with therapeutic community treatment, can be quite effective in lowering recidivism rates. It is important to note, however, that only five of the twelve work release

studies examined were published in peer-reviewed journals and only four of the studies used recidivism as the outcome measure. Seiter (2003) grouped work release and other vocational programs together, determining that work release and vocational programs reduce recidivism on the basis that there were at least two studies the author deemed Level 3 or above on the Maryland Scale of Scientific Methods (MSSM) (see Sherman et al., 1997), with significance tests indicating that work release programs effectively reduced recidivism.

Despite claims that work release has an impact on recidivism rates, some authors argue that the studies producing positive results are less methodologically sound. Katz and Decker (1982) reviewed ten studies (only three of which were published in peer reviewed journals) that examined the effects of work release participation on recidivism and found there was an inverse relationship between the methodological quality of the study and the effect of work release on recidivism. The current study improves on the methodological weaknesses of past studies with its large sample size, which allows for greater statistical power, and includes a host of important control variables shown to effect recidivism in numerous prior studies, which are discussed and cited in the methodology section below. It also uses data that include multiple measures of recidivism, which provide a more comprehensive evaluation of the effect of work release on reentry outcomes. Measures of rearrest, reconviction, and reimprisonment will be used to capture nuances in recidivism outcomes for inmates who completed a work release program relative to a control group who were eligible for work release but were not placed in a work release center prior to their release from incarceration. These measures of recidivism will be examined in both the short- and long-term in order to fully understand the influence of work release programs upon recidivism rates.

Work Release and Post-Release Employment Opportunities

A second way in which work release may improve prisoner reentry success is through increasing the likelihood of inmates obtaining employment post-release; however, there are only three existing studies that have examined this outcome. When considering wages earned after release, Witte (1977), Duwe (2014), and Jung (2014) found that work release programming contributed to higher wages for work release participants compared to those who did not receive work release programming. However, Duwe (2014) found that participation in work release has no significant effect on hourly wages. Those who participate in work release find post-release employment almost twice as fast as those who do not participate (Witte, 1977) and participants have better employment rates two years after release than non-participants (Duwe, 2014; Jung, 2014; Witte, 1977). Finally, Jung (2014) determined that the greater the amount of time spent in a work release program the more money inmates earned post-release; however, it is unclear whether inmates saw increases in earnings because the program helped them to improve or if there were personal characteristics at play that made inmates more likely to complete the program.

Work Release and Cost Savings

Proponents of work release programs often mention the cost effectiveness of these programs as a justification for their implementation (Austin & Krisberg, 1982). The clearest advantage to work release programs cited in the past literature is their ability to reduce costs to correctional systems relative to traditional, higher security prisons (Austin & Krisberg, 1982; Duwe, 2014; Turner & Persilia, 1996). Evidence from only two studies suggests that these programs are indeed more cost effective than traditional prison. A cost-benefit analysis of a Minnesota work release program showed that during the 2007 to 2010 period of the study, there was an overall benefit of about $700 per participant (Duwe, 2014). In Washington during 1990,

Turner and Petersilia (1996) concluded that inmates who participate in work release cost the state about $4,000 less than inmates not on work release.

Overall, the effectiveness of prison-based work release programs remains inconclusive. Some studies support the notion that work release programs are effective in reducing recidivism rates (Duwe, 2014; Jeffrey & Woolpert, 1973) while others find these programs have negative or null effects on recidivism (Turner & Petersilia, 1996; Waldo & Chiricos, 1977). It has been argued that work release improves post-prison employment opportunities for inmates involved in these programs (Duwe 2014; Jung 2014; Witte, 1977) and has been found to be more cost-effective than regular prison sentences (Austin & Krisberg, 1982; Duwe, 2014; Turner & Petersilia, 1996*),* however, important questions remain concerning the impact of work release on recidivism and post-prison employment.

THE PRESENT STUDY

This study will add to the current understanding of the nature and function of work release programming in several key ways. We first determine the impact of inmates' participation in work release programs on post-prison recidivism as measured by rearrest for a misdemeanor or felony offense, rearrest for a new felony crime, reconviction for a felony, and reimprisonment within one, two, and three years post-release. Second, we determine the influence inmates' participation in work release programs has on their employment outcomes within the first full quarter after their prison release. Third, we assess if there are differences in reentry outcomes (recidivism and employment) based on the type of work release center [i.e., contracted ("private") versus state-operated work release centers]. Each of these questions will be considered in order to fully understand the value of work release programs as alternatives to traditional prison incarceration, as well as the ways in which the impacts of these programs vary

by inmate characteristics such as gender, age, race/ethnicity, primary offense, and post-prison supervision status.

Addressing these research questions has important implications for both researchers and policy makers for two primary reasons: it is important to assess whether work release programs are effective at reducing recidivism and to determine their role in providing post-release employment opportunities for inmates. First, inmates who are placed in work release centers have been determined to pose minimal risk for escape or to the safety of the public, however, there is always the potential for an inmate unsupervised in the community to escape or commit a serious crime. Therefore, unless there is credible evidence that work release can reduce future offending, taking these risks would not be sound correctional policy. Second, demonstrating from a resource allocation perspective, it is important to inform correctional administrators whether work release is more or less effective in reducing recidivism and increasing the likelihood of inmates gaining employment post-prison across different types of inmates so this limited resource can be used more effectively. Determining effective policies and programs that assist inmates in the successful transition back into communities is beneficial to the state and taxpayers, and can guide policy decisions and future research.

Research Questions

This study is guided by the following research questions:

1. What is the post-release impact of inmates' participation in work release programs on employment and recidivism?
2. Does the type of work release program, i.e., privately operated (contract) work release centers versus state government operated work release centers, impact post-release employment and recidivism outcomes?
3. Are there differences in the effect of work releases programs on the post-release outcomes of employment and recidivism across inmates with different characteristics, i.e., gender, age, race/ethnicity, current offense, and post-prison supervision status?

METHODOLOGY

Data

Three sources provided the data required to create the measures described in this report. First, administrative corrections data were obtained from the FDC's Bureau of Research and Data Analysis (BRDA). Second, data from the Florida Department of Law Enforcement (FDLE) were used to create measures of pre- and post-prison arrests. Third, the pre- and post-prison employment data were accessed through the Florida Department of Revenue (FDR).

Building the FDC and FSU Researcher-Practitioner Partnership Recidivism Dataset

This section begins with a description of the BRDA's development and use of recidivism datasets on an annual basis. The BRDA began building annual post-prison recidivism research datasets for analysis and reporting purposes in the mid 1980's. These files have been used by the FDC to produce annual reports to document changes in post-prison recidivism in Florida, to report what factors are most influential on post-prison recidivism, to conduct special analyses relating to the predictors of recidivism, and to complete various requests from policy makers and practitioners. The most recent FDC annual recidivism report is based on a cohort of inmates released from Florida's prisons from 2005 to 2012 (FDC, 2014).

During initial meetings between the FDC and FSU research partners, it was determined that the recidivism dataset used to conduct the analyses that resulted in the report, "Florida Prison Recidivism Report: Releases from 2004 to 2011" (FDC, 2013b), would be used as the basis of the analyses for the three major projects the two research units agreed to complete as part of the NIJ funding. Therefore, the initial phase of the project involved the FSU research team becoming familiar with the recidivism dataset. This was followed by numerous meetings and sharing of information relating to the BRDA's warehouse of research data to identify

datasets in the SAS repository that would be used to build a comprehensive recidivism analysis file that would be used to conduct the requisite studies and to build the BRDA's capacity to complete recidivism analyses in numerous other areas after the partnership project was completed.

Importantly, while most of the dialogue and correspondence that occurred relating to identifying the appropriate independent, control, and dependent variables to quantify and include in future analysis was between FSU and the BRDA's research staff, it also involved numerous meetings with subject area experts at the FDC. Specifically, FSU and BRDA research staff had numerous meetings with experts at the FDC's Central Office to learn about each of the topical areas to be studied, i.e., substance abuse treatment, work release, and post-prison supervision. These meetings began as opportunities for the FSU researchers to learn more about the FDC's programs and their processes, the types of questions the practitioners were interested in having answered through the research, and the forms of data and measures the research partners should access. In later stages of the research project when the datasets were developing, additional meetings were held with the subject matter experts, in which FSU and BRDA staff presented the measures and plans for analyzing the data. This proved to be invaluable because the FDC staff held insights into the meaning of the data that informed how we were able to measure and quantify practices, concepts, and outcomes.

While the Principal Investigator on the FSU research team, Bill Bales, was involved in the development of the BRDA's SAS data warehouse and worked with OBIS data for 15 years, he left the FDC for FSU just over 10 years prior to when this project began, therefore, along with the other research staff, he needed to become familiar with the current contents of the data warehouse. After the FSU research team became familiar with the contents of the extensive

research data repository, they developed a document that detailed the datasets and data fields they believed would be needed to expand the measures on the current BRDA recidivism dataset in order to conduct the analyses for the NIJ partnership projects. The BRDA then supplied a host of datasets to the FSU research team relating to prison programming, movements in and out of the correctional system, disciplinary infractions, and sentencing events. These datasets were merged with the core recidivism file of all inmates released from 2004 to 2011 to develop the independent, control, and dependent variables described below.

While there were 250,803 cases in the initial core recidivism dataset, the following details the attrition of cases and the size of the final analysis dataset. There were 25,571 cases in this dataset that were either sentenced to prison in another state or released to a state other than Florida or to another country. These cases were eliminated because the recidivism measures of rearrest, reconviction, and reimprisonment rely exclusively on Florida data. The recidivism rates of these cases were examined and found to be extremely low relative to cases that were sentenced and released in Florida. Another set of 2,151 cases were removed from the dataset due to the fact that, while the offender was sentenced from a Florida court to serve a prison term in Florida, they never actually entered the prison system. The specific reasons behind these instances is not known, however, the logical reason is that pursuant to state law offenders sentenced to prison receive credit for time served in local jail pretrial and these cases likely served enough time in jail prior to sentencing to satisfy the entirety of the prison sentence. The final criterion for excluding cases from the analyses dataset was due to missing data on one or more variables in the multivariate analysis. These included four variables: custody level at prison release, education tested grade level (TABE), substance abuse dependence, and the number of prior arrests. These variables were found to be highly predictive of post-prison

recidivism and employment and so the decision was made that, while 23,785 cases were eliminated from the analysis, these measures were considered too critical as control variables to be excluded from the analysis.

Given that our data set encompasses an eight year timeframe of all prison releases in Florida, from 2004 to 2011, it was unsurprising that a number of inmates were released from incarceration and returned to prison on one or more occasion during our study period. Our final data file contains 171,933 individual inmates with unique identifiers, and a total of 201,447 releases from prison. For the purposes of this study, we are considering our unit of analysis to be the movements from prison and not individual inmates.

Corrections Data

The corrections data from the BRDA originates from the FDC's Offender-Based Information System (OBIS). The OBIS database, established in 1979, contains detailed data on all offenders who were in Florida's correctional system in 1979, and all subsequent offenders sentenced to state prison or community supervision (probation, community control, etc.). OBIS contains the sentencing information recorded on the Sentence and Judgment Form completed by the court when an offender is convicted, comprehensive data relating to the demographic characteristics of offenders, specific data on all inmate movements within and in-and-out of prison, and related to community supervision movements and outcomes (absconding, technical violations, new offenses, and revocations), and initial and all subsequent custody classification decisions. Additionally, all entries, exits, and outcomes associated with prison-based substance abuse and other programs are recorded in OBIS along with details relating to disciplinary infractions, visits by family or friends, and information related to custody classification such as educational and substance abuse needs. To facilitate the tracking of individual offenders over

time, the FDC utilizes a unique offender identifying number that remains constant throughout the system and over the course of each individual offender's criminal career in the state of Florida. There is also data relating to additional unique personal identification numbers such as the number assigned to arrestees by the FDLE when they are booked into a local jail, social security number, and FBI number.

In 1996, the BRDA built a SAS data warehouse of research files that are extracted from OBIS and contains detailed information relating to prison and supervision admissions, releases, and status populations. This data repository now comprises over 200 research files that contain event-based files such as prison movements, supervision gains and losses, disciplinary infractions, and prison and supervision program information, among others. Additionally, composite files that contain numerous variables on specific types of offenders based on their contact with the FDC, such as active prison or supervision populations and admissions and releases from prison or supervision, are contained in the SAS data warehouse and updated routinely. These files can be linked using the offender identification number and are routinely used by the FDC and external researchers to build cohorts of offenders released from prison and community supervision.

Pre- and Post-Prison Arrest Data

Guidance on the measures of post-prison recidivism comes from a series of multi-state recidivism reports generated by the U.S. Department of Justice, Bureau of Justice Statistics (e.g., Durose, Cooper & Snyder, 2014) which include arrest, conviction and return to prison as recidivism outcomes. The source of both pre- and post-prison arrest data for this study was the FDLE, which created the Computerized Criminal History (CCH) data system several decades ago. This data system contains detailed information on all arrests in Florida in which the suspect

was fingerprinted at a local jail facility. The Florida Statistical Analysis Center (FSAC) at the FDLE maintains a SAS data warehouse of all of the CCH data (Burton, et al., 2004). The BRDA and FSAC have shared data for several years, and in doing so have developed an accurate method of ensuring that the resulting matching of arrest and corrections data is based on the same individuals who are in their respective databases.

The accuracy of the matching process is facilitated by the fact that the two data systems are populated with the unique individual identifiers used by each agency to track multiple entries into the state correctional system, including both prisons or community corrections offices, and arrests at the local level. For the creation of the data set that was used in the analyses included in this study, the BRDA provided FSAC with all of the relevant individual identifying variables, such as last name, first name, gender, race, FDLE number, FDC number, FBI number, date of birth, and Social Security number for each record in their 2004 to 2011 inmate recidivism file. The FSAC then matched the data to their CCH repository and provided the resulting dataset to FDC. Prior to sharing this file with their research partners at FSU, BRDA staff encrypted the FDC offender unique identification numbers and eliminated all personal identifying information, such as last name, first name, and Social Security number, in order to ensure the anonymity of each individual in the dataset.

Employment Data

The source of pre- and post-prison release employment data is the Florida Department of Revenue (FDR). This agency collects State of Florida employment data which contains each year and quarter in which individuals are employed, wages earned, and public assistance status. The individual identifier contained in the FDR data warehouse is the social security number, which is also contained in the FDC's OBIS. Using this identifier, inmates in the 2004 to 2011

reentry cohort were able to be matched to the FDR data, and from this measures of pre-incarceration employment and post-prison release employment were created.

Variables

Independent Variables

Two independent variables are used to measure work release. First, a measure which indicates if the inmate completed work release or was in the control group of cases that were eligible for work release but were never placed in a work release facility. The only inmates who are eligible for work release are those who have been assessed to be the lowest security risk based on the FDC classification system. The highest custody level is close custody, followed by medium custody, minimum custody and community custody. Only inmates who are classified as community custody can be placed in a work release center. With one minor exception, inmates who were released back to their communities directly from a work release facility were defined as having completed work release (*Completed Work Release* = 1).[1] The comparison group includes inmates who were community custody when released from the prison system and had not entered a work release center during their incarceration (*Completed Work Release* = 0). These inmates were eligible to participate in work release yet were never transferred to a work release facility, primarily due a lack of bed space at the work release centers.

The second independent variable used in this study was whether inmates who completed work release were housed in a work release center operated by the FDC, i.e., public facilities, or

[1] The exception to this criterion for inmates to be in the work release completers group involved a small number of cases in which an inmate was classified as community custody level and in a work release facility just prior to their release date but were transferred to a non-work release facility a small number of days before their release date. These transfers are for the purpose of locating these inmates closer to the location they were returning to. In these cases, the inmates were considered "work release completers" for the purposes of this study.

if the center was operated by a private contract provider, i.e., private facilities. Each correctional facility has a unique identification number which was used to distinguish between public and privately operated work release centers. This comparison was conducted to determine if the type of facility had an effect on the impact of work release programming on recidivism and employment outcomes.

Control Variables

There are numerous factors that have been shown to be empirically linked to differences in the likelihood that released prisoners will recidivate, which are listed in Table 1 and described in more detail below. We control for the demographic characteristics of gender, race, and age, which have consistently been shown to be strong predictors of recidivism (Bales & Mears, 2008; Beck & Shipley, 1987; Langan & Levin, 2002). These include sex (male=1, female=0), three dichotomous variables capturing race and ethnicity of white (1=white/non-Hispanic, 0=non-white), black (1=black/non-Hispanic, 0=white), Hispanic (1=Hispanic, 0=black/non-Hispanic or white/non-Hispanic), and age at prison release as a continuous variable in years. Education level is measured through the results of the Test of Adult Basic Education (TABE). Inmates may take this test, which determines the equivalent grade level the inmate has achieved based on their reading, writing, and math proficiencies at that time, multiple times during their incarceration. For the purposes of this study, the score from the TABE exam which was administered most recently prior to the inmates release date was used.

Whether inmates have substance abuse dependency problems is determined through the Drug Simple Screening Instrument (DSSI) and is operationalized as having a physical or psychological dependency (=1) or not (=0). There have been several studies which have examined the link between mental illness and recidivism and have found mixed results

(Baillargeon et al. 2009; Bonta & Hanson, 1998; Grann & Fazel, 2008). The variable psychiatric diagnosis at prison release (0=no, 1=yes) is based on if the inmate's latest mental health evaluation resulted in a psychiatric diagnosis which required some type of medication. If the inmate was assessed by the FDC to be a suspected or confirmed gang member (0=no, 1=yes) was an important control variable based on findings from prior research that has found a positive influence of this affiliation with recidivism (Huebner, Varano, & Bynum, 2007; Dooley, Seals & Skarbek, 2014). Whether the inmate was employed during the first full quarter prior to their admission to prison (0=no, 1=yes) is included as a control variable along with the number of tattoos an inmate has (Bales, Blomberg, & Waters, 2013).

The most serious type of crime which resulted in offenders being imprisoned and their prior criminal record has been associated with reentry outcomes (Bales & Mears, 2008; Langan, et al., 2003; Putnins, 2005). Therefore, the most serious crime which resulted in a conviction and sentence to prison is measured through dummy variables (0=no,1=yes) based on eight different crime types of murder/manslaughter, robbery, other violent offenses, burglary, property, drugs, weapons, and other miscellaneous offenses. Sex offenders are prohibited from being assigned to work release programs so there are no cases sentenced for this type of crime in the analysis. While a host of prior criminal record measures were available to use in the models, due to multicollinearity problems when including all of them in the analysis, we selected four measures that had the greatest influence on recidivism and were not collinear. These include the number burglary convictions in the five years preceding prison admission, the number of theft convictions in the five years preceding admission, total number of prior arrests, and the number of prior Florida prison admissions.

The effect of the length of stay in prison on recidivism explored in prior studies have found from mixed results (Beck & Shipley, 1987; Langan, et al., 2003), positive effects (Visher et al., 1991), and negative relationships (Bales & Mears, 2008; Beck & Shipley, 1997). Therefore, time served in prison in months is included in the analysis. Institutional adjustment as indicated by violations of institutional rules and resulting infractions has been found to influence post-prison offending behavior (Chen & Shapiro, 2007; Kohl et al., 2008; Mears & Bales, 2009). Measures of institutional adjustment included whether inmates had one or more disciplinary infraction within 365 days of their prison release (0=no, 1=yes) and the total number of infractions per month served in prison (Bales & Mears, 2008). Provided that research has demonstrated that inmates who are visited in prison and those who are visited more often have significantly lower recidivism rates (Bales & Mears, 2008) we include a measure of the number of visits inmate received per month served. Additionally, whether inmates were under some form of community supervision post-prison was accounted for in the analysis (0=no, 1=yes).

Finally, for two reasons, we include dummy variables reflecting the year inmates were released from prison during our cohort period of 2004 to 2011. First, this eight year span of all prison releases provides a unique opportunity to control for changes in policies and practices related to prisoner reentry that are not directly measurable. Second, the "Great Recession" in the U.S. began in December 2007 and ended in June 2009 (U.S. Bureau of Labor Statistics, 2012). The Recession occurred in the middle of our cohort period and the dire economic conditions and in particular high unemployment rates, especially among minorities and young males, may have some influence on post-prison employment and recidivism.

[INSERT TABLE 1 HERE]

Dependent Variables

Tables 2 and 2a describe the dependent variables used in the analyses. The recidivism measures related to arrest events were derived from the FDLE arrest data described previously. These data contain the date of each arrest event and the type of charge(s). These data were used to determine whether an individual was arrested for any crime (felony or misdemeanor, excluding technical violations of supervision) after release from incarceration, and if they were arrested solely for a felony offense (excluding technical violations of supervision). Multiple measures of arrest were used to distinguish between those who were arrested for any reason, and those who were arrested for more serious offenses (felonies). Additionally, these variables were created as close approximations of the arrest measures used in the Bureau of Justice Statistics' most current recidivism report "Recidivism of prisoners released in 30 states in 2005: Patterns from 2005 to 2010" (Cooper, Durose & Snyder, 2014). The recidivism measures capturing a conviction for a felony crime were obtained from the FDC's "component" dataset which contains detailed data on every convicted charge for a felony in Florida which results in a sentence to state prison or some form of community supervision. The recidivism measure which indicates a return to Florida's prison system for any reason was obtained from the FDC's "prison movement" dataset which contains a record for every movement resulting in an entry into or an exit from a Florida prison. These records contain the movement date and the reason for the movement, such as whether it was a new sentence or a technical violation of supervision.

[INSERT TABLES 2 AND 2a HERE]

Analytical Techniques

Survival and Logistic Regression Modeling

First, Cox Regression Proportional Hazards Models, i.e., "survival analysis" is used to examine the effect of our independent variable of work release completers compared to a control

group who met the criterion for work release but did not participate due to a lack of work release slots (see, Allison, 1995). This method measures the probability of recidivism (rearrest, reconviction, and reimprisonment) and the time to failure across the two groups. Second, logistic regression models, which is an appropriate multivariate modeling technique when the outcome variables is dichotomous, such as whether recidivism occurred (0=no,1=yes), are created to estimate the impact of treatment, i.e., work release, on employment, rearrest, reconviction, and reimprisonment within one, two, and three years after prison release (see, Allison, 1999).

RESULTS

The primary focus of this study is to empirically determine if work release programs administered in Florida's prison system improve post-release employment and reduce recidivism outcomes and, if so, the magnitude of the effects. This information will be particularly valuable to correctional systems throughout the country because most of the existing evidence in the prior literature is dated and many studies lack scientific rigor and rely on small sample sizes. The second emphasis of this research is to determine if the operation of work release centers by private providers results in different post-prison employment and recidivism outcomes than those operated by the public Florida Department of Corrections agency. Another important contribution of this research, which is made possible by the large number of cases examined, is that it informs the correctional field whether different types of inmates benefit more or less from the work release experience in terms of gender, age, race/ethnicity, current offense, and post-prison supervision status. If differences are discovered, they can lead to important policy

decisions in terms of how to best spend the limited work release resources available to correctional systems and result in better outcomes.

Table 3 shows that of the 201,447 inmate releases from prison during the study period spanning from 2004 to 2011, there were 27,463 releases from work release and 15,911 releases from the comparison non-work release group for a total of 43,374 releases. Just over one in five (21.5%) of all releases from the Florida prison system were either directly from a work release center or were eligible for work release but never entered this type of facility. This high percentage of all prison releases either completing work release or eligible but not able to enter a facility buttresses the need to determine the relative post-prison outcomes of these inmates.

Table 3 presents the means for the overall cohort, and the means and mean differences for the primary independent variables (i.e., work release completers and non-participants, and releases from contract facilities and state-operated facilities) across the recidivism measures and employment outcome. First, work release completers have lower recidivism rates than the non-participants with the one exception of returning to prison within one year (completers = 4.1%, non-participants = 4%). Also, with the exception of the return to prison measures, the differences between completers and non-participants of work release are statistically significant ($p<0.001$). Additionally, inmates who complete work release are more than twice as likely to obtain employment during the first full quarter after prison release (63.8%) than non-participants (30.3%). However, these differences in post-prison recidivism and employment outcomes across the work release and non-work release groups may be influenced by differences in the characteristics of these two groups on variables that are known to impact post-prison reentry outcomes, such as type of offense, lengths of stay in prison, gender, age, prior criminal history,

and institutional behavior. Subsequent analysis will take these factors into consideration to determine the unique effect of work release on post-prison outcomes.

Table 3 also presents bivariate relationships between whether work release completers were housed in facilities operated by the Florida Department of Corrections (FDC Operated) or by private contract providers and the four types of recidivism and post-prison employment. These data demonstrate that inmates housed in private work release centers are significantly less likely to recidivate than inmates housed in public facilities regardless of how recidivism is measured, and significantly less likely to gain employment upon prison release. Again, these differences may be a function of variations in the characteristics of inmates each type of facility houses and demonstrates the need to carefully consider and account for the types of inmates exposed to public versus private work release facilities.

[INSERT TABLE 3 HERE]

We turn next to the results presented in Table 4 which has three purposes. First, to provide summary statistics about our entire cohort on the control variables used in the multivariate analysis to follow. Second, to demonstrate that while there are differences in work release completers and the control group of non-participants, as well as between completers across private and publically operated facilities, the magnitude of the dissimilarities are not dramatic and will be dealt with in the multi-variate analysis to follow.

Based on the characteristics among the overall cohort, 87.4% were male, 49.2% were black, 6.6% were Hispanic, and the mean age at prison release was 34.6 years. The average tested educational grade level was 7.3 years and just over 50% of the inmates had a diagnosed substance abuse dependency issue. Only 15.3% of the cohort were employed prior to prison admission. The most frequent type of crime that resulted in the inmate's incarceration was for

drugs (31.2%) followed by property offenses (15.7%). The cohort averages 13.6 prior arrests, served an average of 25.5 months in prison, and 31.8% were required serve a term of supervision after release.

Table 4 also displays a comparison in the control variables across the work release completers versus non-participants and contract versus FDC-operated comparisons. These descriptive numbers indicate that while there are differences in the work release completers and non-participants, the magnitude of those differences are not dramatic. However, the data clearly demonstrates the need to account for these measures when attempting to determine the unique effect of work release on post-prison reentry outcomes. A similar conclusion can be drawn when examining the differences in the measures across inmates completing work release in a publically versus privately operated facility.

[INSERT TABLE 4 HERE]

Tables 5 through 9 provide findings which answer the first research question noted earlier, i.e., "what is the post-release impact of inmates' participation in work release programs on employment and recidivism?" Importantly, given the differences in the recidivism and employment outcomes noted above, without considering other factors, the models presented in the tables 5 through 9 control for a host of measures that prior literature has demonstrated impacts post-prison reentry outcomes, and described in Table 1. This enables us to have considerable confidence that the effects of whether inmates were in the control group of non-work release or the experimental group of work release completers on post-prison recidivism and employment can be attributed to the work release experience and not because the two groups are different on predictors of the outcomes.

Table 5 presents the findings of a Cox proportional hazard regression model, also referred to as a "survival" model, in which the outcome is an arrest for any crime (excluding technical violations). More specifically, this modeling method takes into consideration whether the inmate is arrested (i.e. fails) and the timing to failure. Therefore, this modeling technique considers whether a program, such as work release, reduces the likelihood of an arrest post-release occurring and is also possibly delaying the occurrences of rearrest post release.

The results in Table 5 indicate that hazard rate (H.R.) of arrest among work release completers is 5.1% lower than that of a group of statistically equivalent non-participants. This is after controlling for a host indicators demonstrated to be related to recidivism outcomes. Also, the results are consistent with the prior literature described previously, i.e., males, younger releases, those with lower educational levels, more extensive prior criminal records, and with more disciplinary infractions are significantly more likely to be rearrested.

Table 6 shows the overall hazard rate for work release completers compared to non-work release participants for the other three recidivism measures of arrest for a felony, conviction, and return to prison for any reason, however, the covariates are not included in these models for the sake of parsimony[2]. The results indicate that, with the exception of returning to prison for any reason, work release completers are significantly less likely than non-participants to recidivate across all three recidivism measures. Specifically, the hazard rate of arrest for a felony (excluding technical violations) among work release completers is 3.2% lower than comparable non-participants and 4.4% lower for a crime resulting in a conviction. While these effect sizes

[2] Full results available upon request.

are relatively modest, the previous indication that one in five inmates released in Florida either leave directly from a work release facility or were eligible for work release but did not participate, indicates a significant practical effect of this program on reducing the number of recidivists.

[INSERT TABLES 5 AND 6 HERE]

Table 7 displays the logistic regression model results of the effects of work release completion versus non-participation on the likelihood of a post-prison arrest for any crime (excluding technical violations) within in one, two, and three years. The results indicate that inmates who completed work release, compared to inmates who met the criteria for work release but did not participate, were significantly less likely to recidivate for a new arrest. Specifically, work release completion reduces the odds ratio (O.R.) of a post-prison arrest within one year by 10.0%, by 7.5% within two years and by 8.9% within three years.

Table 8 shows the results of the logistic regression models of the effects of work release completion versus non-participation on all recidivism measures within one, two, and three years, as well as on employment within one quarter after release from prison. First, the results indicate, as expected, that the number of cases decline across the follow-up intervals, decreasing from one to two to three year measurement points for all three operational definitions of recidivism. Second, the explanatory power of each model typically increases with each subsequent year of the follow-up period. Third, the results show that released inmates who completed work release had reduced odds of being arrested for a felony crime within one year of 6.5%, 3.9% within two years, and 5.6% within three years compared to similar inmates who did not participate in a work release program prior to release from incarceration. The one and three year outcomes were significant at the $p<.05$ level while the two year outcome was significant only at the $p<.10$ level.

Very similar findings result when the recidivism measures are reconviction within one, two and three years, however only reconviction at three years reaches a level of statistical significance (O.R. = 0.942, $p<0.05$). In contrast to these findings, based on measures of recidivism relating to the likelihood of reimprisonment within 1, 2, and 3 years post-release, inmates who completed work release were somewhat more likely to return to prison for any reason, however, only the one year follow-up period was statistically significant (O.R. = 1.127; $p<.05$).

The final component of the first research question relates to whether work release completion increases the likelihood of released inmates gaining employment upon reentry into their communities. Table 8 demonstrates that inmates who completed work release in prison were over six times more likely to be employed than comparable non-work release inmates. These findings clearly demonstrate that providing inmates the opportunity to receive job training, improve their work-related skills, and work in the community through the work release program has a significant impact on improving their chances of employment upon entering their communities.

[INSERT TABLES 7 AND 8 HERE]

We next turn to answering the second research question, which asks whether "the type of work release program, i.e., privately operated (contract) work release centers versus state government operated work release centers, impact post-release employment and recidivism outcomes". Table 3 showed that of the 27,463 releases from a work release program, 5,747 (20.9%) were released from facilities operated by private providers while 21,716 (79.1%) were released from facilities operated by the FDC. It is important from a policy perspective to determine whether there are significant differences in the post-prison reentry outcomes of recidivism and employment across publicly-versus privately-operated work release centers.

Table 9 displays the results of Cox proportional hazard models of the post-prison arrest for any type of crime with the key independent variable of whether inmates who completed work release programming were released from a contracted (private) work release facility compared to a FDC operated facility (n=27,463). The results demonstrate there is no significant difference in the rearrest recidivism outcome across comparable inmates completing a work release program operated by the FDC or a private provider. Table 10 includes the effects of being released from a private work release facility for all four recidivism outcomes and presents somewhat contradictory findings across the four recidivism outcomes. Only two of the four models reveal statistically significant effects of private facilities on recidivism. Private facilities result in a very slight and essentially inconsequential greater likelihood of a rearrest for a felony (H.R. = 1.002, $p<.05$). In other words, private work release inmates are 0.2% more likely to be arrested for a felony than a private work release inmate. In contrast, when the recidivism outcome is returning to prison for any reason, private work release inmates are significantly more successful than comparable inmates released from a publically operated facility. Specifically, Table 10 presents that the odds of private work release inmates returning to prison are 7.1% less than publicly operated centers.

[INSERT TABLES 9 AND 10 HERE]

Table 11 shows the results of the logistic regression model of contract (private) work release facility on arrest for any crime (excluding technical violations). The number of cases examined decreases while the explanatory power of the model increases across each increase in the recidivism follow-up period (one, two, and three years). Overall, the odds of arrest for any crime among inmates released from contracted facilities are lower than those for individuals released from FDC operated work release facilities for follow-up periods of one year (O.R. =

0.963), two (O.R. = 0.937) and three years (O.R. = 0.952), however, none of the effects are statistically significant.

Table 12 expands on the findings in Table 11 relating to the effect of contract versus FDC operated work release centers on recidivism by using three additional measures of recidivism, i.e., arrest for a felony, conviction, and return to prison for any reason within one, two, and three years. With the exception of arrest for a felony within one and two years, all of the models indicate lower recidivism rates among inmates exposed to private work release centers, however, the only statistically significant effect is for returning to prison within three years (O.R. = 0.889, $p<.01$).

The final component of research question two relates to whether post-prison release employment outcomes among comparable inmates who complete work release in a privately operated facility are different than those who are released from a FDC operated facility. Table 12 demonstrates that inmates released from a privately operated work release facility are significantly more likely to obtain employment within the first full quarter post-release. Specifically, the odds of employment are 30.2% greater for the contract work release inmates than their comparable FDC work release inmates.

[INSERT TABLES 11 AND 12 HERE]

We next turn to the empirical findings that relate to the third research question which asks, "Are there differences in the effect of work release programs on the post-release outcomes of employment and recidivism across inmates with different characteristics, i.e., gender, age, race/ethnicity, current offense, and post-prison supervision status?" Table 13 presents the effect of inmates completing work release versus those eligible for work release but did not have any exposure to these types of facilities on our four recidivism outcome measures when isolating a

host of specific gender, age, race/ethnicity, offense, and post-prison supervision groups. The findings from these analyses should be considered in light of the fact that the number of cases available to analyze when selecting these specific subgroups of inmates can be relatively small, especially within the control group of non-work release inmates which included a total of 15,911 cases.

The findings clearly demonstrate that work release has very different effects on post-prison recidivism across many of the sub-groups of inmates presented. For example, males, blacks, and Hispanics tend to benefit more from completing work release than females or whites. In terms of the inmate's age at prison release, Table 13 shows that work release has a somewhat stronger effect of reducing recidivism among the age groups 25 to 29 and 30 to 39 years than the other three age groups reflecting younger and older inmates. The recidivism reduction effect of work release is greatest among burglary offenders, who generally have higher than average recidivism rates. Finally, inmates who have no post-prison supervision are advantaged by completing work release from a recidivism perspective to a greater degree than inmates with supervision following release.

[INSERT TABLE 13 HERE]

Table 14 presents the results for the logistic regression models for the effects of work release completion on post-release employment outcomes within one quarter after release across several isolated sub-groups. The table indicates that there were 35,003 males and 8,374 females in the cohort. The logistic regression results show that females have higher odds of post-release employment due to completing work release (O.R. = 8.033; $p<0.001$) than males who completed work release (O.R. = 6.275; $p<0.001$). With respect to race and ethnicity, there is minimal variation in the positive effect sizes of work release on employment. All age groups benefit

significantly from work release in terms of post-prison employment. However, the youngest age group of 15 to 24 year olds benefit the least (O.R. = 4.651; $p<0.001$) while the oldest age group derives the most benefit (O.R. = 12.166; $p<0.001$). Across the eight different primary offense types that resulted in imprisonment, there are no dramatic differences in the effect of work release completion on employment. In summary, while there are some differences in the effect of work release on recidivism and employment across inmate characteristics, the significant positive effects exist across all types of inmates.

DISCUSSION

The purpose of this study was to inform correctional practitioners and policy makers about the effectiveness of prison-based work release centers which have the primary mission of providing inmates with enhanced job skills and work experiences to improve the likelihood of gaining employment and staying crime free when they complete their prison sentence and return to their communities. This research was guided by three basic questions and used a comprehensive set of data including 27,463 released Florida inmates who completed work release and 15,911 inmates who were eligible for work release but were not able to have any exposure to work release prior to exiting prison. Relative to the prior research addressing the same questions answered in this current research, it is clear that based on the very large number of cases examined, the quality of the measurements included in the statistical analysis, and the breadth of control variables used to ensure that the effects of work release generally and the determination of whether privately operated facilities are more or less effective as publicly operated work release centers, this study is a significant contribution to the scientific evidence relative the effectiveness of work release programs.

The answer to the first research question answered in this study is that offenders sentenced to state prison who successfully participate in a work release program generally more successful than equivalent inmates who are not provided the work release opportunity in terms of their likelihood of recidivism and obtaining employment subsequent to their release from prison. Specifically, depending upon the manner in which recidivism is measured, i.e., rearrest, conviction for a felony offense and the follow-up period used, work release completers have a 4% to 10% lower odds of recidivating than their non-work release participants' counterparts. The exception is when reimprisonment for any reason is used as the recidivism measure, the results general showed no significant effect of work release completion. Additionally, work release inmates are more than five times more likely to gain employment subsequent to prison release than comparable non-work release inmates.

The answer to the second question guiding this research, which asked whether private contract and publicly operated facilities differ in producing better recidivism and post-prison employment outcomes is very clear. Whether the Florida Department of Corrections operates a work release center or it is operated through a contract with a private provider, the outcomes of recidivism and employment are substantively the same.

The last question answered in this research asked whether the work release experience has varying post-prison employment and recidivism effects on different types of inmates in terms of gender, race, age, offense type, and post-release supervision status. The findings clearly demonstrate that males, blacks, and Hispanics benefit more from the work release experience than their female and white counterparts. Also, those inmates who exit prison in Florida with no supervision or oversight by the FDC, which is approximately two-thirds of all releases, benefit more from the work release experience relative than those who have no supervision to follow.

Limitations

As with any research project, this assessment of the effects of work release programs in Florida on recidivism and post-prison employment has some limitations. First, we were not able to conduct a true experimental design in which inmates were randomly assigned to a work release center versus a control group of inmates housed in other types of facilities. However, we believe that our use of a control group that included inmates who had no exposure to work release but were eligible for this program along with the inclusion of numerous control variables in the statistical analysis to approximate equivalent inmates except for the work release experience results in a strong research design. Second, we were not able to examine whether the length of time in work release has an effect on post-prison recidivism and employment. Finally, the only employment measure available is self-reported by employers to the Florida Department of Revenue. However, given the strong findings regarding work release completion and post-prison employment, we anticipate that an improved measure of post-prison employment would only strength the association found in this study.

Policy Implications

These findings demonstrate the need to expand the use of work release programs in correctional systems from a public safety perspective. This research provides compelling evidence that work release is an effective correctional program in terms of significantly reducing the likelihood that prison releases will return to a life of crime and recycle through the court and correctional system. Additionally, given that the daily cost of housing an inmate in a work release center in Florida is $29.73 per day and the daily cost of housing the same inmate in a major institution is $43.03 (FDC Annual Report, 2013−2014), the expansion of these types of facilities would be a sound policy from a public safety and cost perspective. Additionally, the

significant increase in the likelihood that work release inmates will secure employment post-release relative to comparable non-work release inmates is also a positive prison re-entry outcome.

The findings reported here also indicate that work release programs operated by FDC or are run by private providers are essentially equally effective in terms of recidivism. However, the privately operated facilities are more effective than those operated by the public sector correctional system in engendering post-prison employment. This suggests that correctional agencies should further investigate the use of private providers when expanding their work release programs or consider having private entities resume the operation of work release centers operated by state correctional agencies. Finally, the evidence presented indicates that some number of specific inmate types based on gender, race, age, and crime type may benefit from more from participation in work release programming than other groups. This should be considered by correctional systems in terms of prioritizing placement of inmates in work release programs that have limited beds and resources.

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Table 1. Control Variables Included in the Analyses

Variable Name	Values
Sex	1 = Male, 0 = Female
Race/Ethnicity:	
White	1 = White/Non−Hispanic, 0 = Non-White
Black	1 = Black/non−Hispanic, 0 = White
Hispanic	1 = Hispanic, 0 = Black/non-Hispanic/White Non-Hispanic
Age at Prison Release	Continuous in Years
Education Tested Grade Level (TABE)	Continuous in Years
Substance Abuse Dependence	DSSI−Physical/Psychological Dependence = 1, None = 0
Psychiatric Diagnosis at Prison Release	0 = No, 1 = Yes
Suspected or Confirmed Gang Member	0 = No, 1 = Yes
Employment Prior to Prison Admission	0 = Not employed first quarter prior to prison, 1 = employed
Number of Tattoos	Continuous number
Primary Offense at Prison Admission	Charge With Longest Sentence
Murder/Manslaughter	0 = No, 1 = Yes
Robbery	0 = No, 1 = Yes
Other Violent	0 = No, 1 = Yes
Burglary	0 = No, 1 = Yes
Property Offenses	0 = No, 1 = Yes
Drug Offenses	0 = No, 1 = Yes
Weapons Offenses	0 = No, 1 = Yes
Other Offenses	0 = No, 1 = Yes
Prior Convicted Burglary Offenses	Continuous number
Prior Convicted Theft Offense	Continuous number
Prior Arrests	Continuous number
Prior Florida Prison Commitments	0 = None, 1 = One, 2 = Two, 3 = Three or More
Time Served in Prison	Months From Prison Admission to Release
One+ Disciplinary Infraction 1 Year of Release	0 = No, 1 = Yes
Number of Disciplinary Infractions per Month Served	Continuous number
Visits Inmate Received per Month Served	Continuous number
Post-Prison Supervision	0 = No, 1 = Yes
Year of Release from Prison	
2004	0 = No, 1 = Yes
2005	0 = No, 1 = Yes
2006	0 = No, 1 = Yes
2007	0 = No, 1 = Yes
2008	0 = No, 1 = Yes
2009	0 = No, 1 = Yes
2010	0 = No, 1 = Yes
2011	0 = No, 1 = Yes

Table 2. Recidivism Measures: Arrests

Variable Name	Values
Recidivism	
Survival Variable − Arrest for any crime excluding violations - if censored	0 = Not arrested for any crime, excluding violations, prior to the last follow-up date; 1 = Number of months to first arrest for any crime excluding violations prior to the last follow-up date
Survival Variable − Number of months to first arrest for any crime excluding violations for uncensored cases or number of months to the last follow-up date for censored cases	Number of months to last follow-up date for cases not arrested for any crime excluding violations (censored) or number of months to first arrest for any crime excluding violations (uncensored)
If arrested for any crime excluding violations within one year post-prison release	0 = Not arrested for any crime, excluding violations, within one year post-prison release; 1 = Arrested for any crime, excluding violations, within one year post-prison release; Missing = less than one year from prison release to last follow-up date
If arrested for any crime excluding violations within two years post-prison release	0 = Not arrested for any crime, excluding violations, within two years post-prison release; 1 = Arrested for any crime, excluding violations, within two years post-prison release; Missing = less than two years from prison release to last follow-up date
If arrested for any crime excluding violations within three years post-prison release	0 = Not arrested for any crime, excluding violations, within three years post-prison release; 1 = Arrested for any crime, excluding violations, within three years post-prison release; Missing = less than three years from prison release to last follow-up date
Survival Variable − Arrest for a felony crime - if censored	0 = Not arrested for a felony crime prior to the last follow-up date; 1 = Number of months to first arrest for a felony crime prior to the last follow-up date
Survival Variable − Number of months to first arrest for a felony crime for uncensored cases or number of months to the last follow-up date for censored cases	Number of months to last follow-up date for cases not arrested for a felony crime (censored) or number of months to first arrest for a felony crime (uncensored)
If arrested for a felony crime within one year post-prison release	0 = Not arrested for a felony crime within one year post-prison release; 1 = Arrested for a felony crime within one year post-prison release; Missing = less than one year from prison release to last follow-up date
If arrested for a felony crime within two years post-prison release	0 = Not arrested for a felony crime within two years post-prison release; 1 = Arrested for a felony crime within two years post-prison release; Missing = less than two years from prison release to last follow-up date
If arrested for a felony crime within three years post-prison release	0 = Not arrested for a felony crime within three years post-prison release; 1 = Arrested for a felony crime within three years post-prison release; Missing = less than three years from prison release to last follow-up date

Table 2a. Recidivism Measures: Conviction and Return to Prison, and Employment

Variable Name	Values
Recidivism	
Survival Variable − Conviction for a felony crime - if censored	0 = Not convicted for a felony crime prior to the last follow-up date; 1 = Number of months to first conviction for a felony crime prior to the last follow-up date
Survival Variable − Number of months to first conviction for a felony crime for uncensored cases or number of months to the last follow-up date for censored cases	Number of months to last follow-up date for cases not convicted for a felony crime (censored) or number of months to first convicted for a felony crime (uncensored)
If convicted for a felony crime within one year post-prison release	0 = Not convicted for a felony crime within one year post-prison release; 1 = Convicted for a felony crime within one year post-prison release; Missing = less than one year from prison release to last follow-up date
If convicted for a felony crime within two years post-prison release	0 = Not convicted for a felony crime within two years post-prison release; 1 = Convicted for a felony crime within two years post-prison release; Missing = less than two years from prison release to last follow-up date
If convicted for a felony crime within three years post-prison release	0 = Not convicted for a felony crime within three years post-prison release; 1 = Convicted for a felony crime within three years post-prison release; Missing = less than three years from prison release to last follow-up date
Survival Variable − Return to Prison for Any Reason - if censored	0 = Not arrested for a felony crime prior to the last follow-up date; 1 = Number of months to first arrest for a felony crime prior to the last follow-up date
Survival Variable − Number of months to first return to prison for any reason for uncensored cases or number of months to the last follow-up date for censored cases	Number of months to last follow-up date for cases that did not return to prison for any reason (censored) or number of months to first return to prison for any reason (uncensored)
If returned to prison for any reason within one year post-prison release	0 = Returned to prison for any reason within one year post-prison release; 1 = Not returned to prison for any reason within one year post-prison release; Missing = less than one year from prison release to last follow-up date
If returned to prison for any reason within two years post-prison release	0 = Returned to prison for any reason within two years post-prison release; 1 = Not returned to prison for any reason within two years post-prison release; Missing = less than two years from prison release to last follow-up date
If returned to prison for any reason within three years post-prison release	0 = Returned to prison for any reason within three years post-prison release; 1 = Not returned to prison for any reason within three years post-prison release; Missing = less than three years from prison release to last follow-up date
Employment	
Post-Prison Employment	0 = No employment during first full quarter after prison release; 1 = Employed during first full quarter after prison release

Table 3. Descriptive Statistics: Recidivism and Post-Prison Employment Outcome Variables

	Overall Cohort n=201,447	Completers n=27,463	Non−Participants n=15,911	Mean Difference	Contract (Private) n=5,747	FDC Operated n=21,716	Mean Difference
	Mean	Mean	Mean		Mean	Mean	
Dependent Variables (1= Yes, 0= No)							
Arrest for any felony or misdemeanor (excluding technical violations)							
Anytime	0.675	0.570	0.614	0.044***	0.473	0.596	0.123***
One year	0.379	0.249	0.299	0.050***	0.207	0.261	0.054***
Two years	0.556	0.416	0.466	0.050***	0.367	0.428	0.062***
Three years	0.633	0.506	0.555	0.050***	0.448	0.518	0.070***
Arrest for any felony (excluding technical violations)							
Anytime	0.609	0.498	0.533	0.035***	0.405	0.522	0.118***
One year	0.315	0.206	0.241	0.035***	0.176	0.214	0.038***
Two years	0.482	0.351	0.388	0.037***	0.311	0.361	0.050***
Three years	0.558	0.434	0.472	0.038***	0.382	0.445	0.063***
Conviction							
Anytime	0.377	0.302	0.337	0.035***	0.227	0.322	0.095***
One year	0.171	0.112	0.133	0.021***	0.089	0.118	0.030***
Two years	0.270	0.193	0.222	0.029***	0.161	0.201	0.040***
Three years	0.338	0.256	0.290	0.034***	0.219	0.264	0.045***
Return to prison							
Anytime	0.396	0.285	0.289	0.004	0.204	0.307	0.103***
One year	0.062	0.041	0.040	−0.002	0.037	0.043	0.006*
Two years	0.148	0.097	0.100	0.003	0.086	0.100	0.014**
Three years	0.220	0.149	0.154	0.005	0.129	0.154	0.025***
Post-prison employment							
Within first quarter	0.338	0.638	0.303	−0.335***	0.567	0.657	0.090***

*p<.05, **p<.01, ***p<.001

Table 4. Descriptive Statistics: Control Variables

	Overall Cohort n=201,447	Completers n=27,463	Non−Participants n=15,911	Mean Difference	Contract (Private) n=5,747	FDC Operated n=21,716	Mean Difference
	Mean	Mean	Mean		Mean	Mean	
Sex (1=Male, 0=Female)	0.874	0.842	0.747	−0.095***	0.708	0.877	0.170***
Race/Ethnicity							
White (1=White/non−Hispanic, 0=Non−White)	0.442	0.508	0.543	0.035***	0.543	0.499	−0.044***
Black (1=Black/non−Hispanic, 0=White)	0.492	0.417	0.397	−0.020***	0.383	0.426	0.043***
Hispanic (1=Hispanic, 0=Black/non−Hispanic or White/non−Hispanic)	0.066	0.075	0.060	−0.015***	0.074	0.075	0.001
Age at prison release (in years)	34.601	34.263	34.892	0.629***	35.360	33.972	−1.388***
Education Tested Grade Level	7.282	8.040	7.618	−0.422***	8.354	7.957	−0.397***
Substance Abuse Dependence (1= Physical or psychological dependence, 0= None)	0.508	0.512	0.556	0.044***	0.554	0.501	−0.053***
Psychiatric Diagnosis at prison release (1=Yes, 0=No)	0.110	0.024	0.115	0.091***	0.038	0.021	−0.017***
Suspected or confirmed gang member (1=Yes, 0=No)	0.054	0.024	0.024	0.000	0.019	0.025	0.006*
Employment prior to prison admission	0.294	0.303	0.347	0.044***	0.282	0.308	0.026***
Number of tattoos	2.934	2.179	2.421	0.242***	2.432	2.112	−0.320***
Primary Offense							
Murder/Manslaughter	0.015	0.027	0.010	−0.017***	0.034	0.025	−0.008**
Robbery	0.063	0.043	0.027	−0.016***	0.047	0.042	−0.005
Other violent offenses	0.132	0.078	0.073	−0.005*	0.077	0.078	0.001
Burglary	0.140	0.143	0.118	−0.024***	0.132	0.145	0.013*
Property offenses	0.157	0.162	0.207	0.046***	0.167	0.160	−0.007
Drugs	0.312	0.428	0.399	−0.029***	0.447	0.423	−0.024***
Weapons offenses	0.034	0.034	0.032	−0.002	0.029	0.036	0.007**
Other	0.108	0.086	0.133	0.048***	0.067	0.091	0.024***
Number of prior burglary offenses	0.434	0.486	0.355	−0.131***	0.430	0.500	0.071***
Number of prior theft offenses	0.966	1.207	1.069	−0.138***	1.354	1.168	−0.186**
Number of prior arrests	13.591	10.291	11.334	1.043***	10.186	10.319	0.133
Number of prior prison commitments[1]	0.590	0.298	0.297	−0.001	0.302	0.297	−0.006
Time served in prison (in months)	25.606	29.091	16.144	−12.947***	33.645	27.885	−5.760***
One or more DRs within 365 days of release (1=Yes, 0=No)	0.377	0.099	0.171	0.071***	0.050	0.112	0.062***
Total number of DRs per month	0.096	0.024	0.030	0.006***	0.020	0.026	0.006***
Number of visits per month	0.298	0.508	0.289	−0.219***	0.504	0.509	0.005
Post-prison supervision (1=Yes, 0=No)	0.319	0.288	0.270	−0.018***	0.282	0.290	0.008
Year of Release from Prison							
2004	0.109	0.141	0.136	−0.005	0.027	0.171	0.145***
2005	0.113	0.128	0.095	−0.033***	0.053	0.147	0.094***
2006	0.122	0.137	0.106	−0.311***	0.106	0.145	0.039***
2007	0.129	0.124	0.157	0.033***	0.112	0.127	0.016***
2008	0.133	0.117	0.151	0.034***	0.134	0.112	−0.022***
2009	0.134	0.119	0.132	0.013***	0.167	0.106	−0.061***
2010	0.131	0.118	0.128	0.010**	0.191	0.099	−0.092***
2011	0.127	0.116	0.095	−0.021***	0.210	0.091	−0.119***

*p<.05, **p<.01, ***p<.001

[1] Truncated where 3= 4 or more prior commitments.

Table 5. Effect of Work Release Completers versus Non-Participants on Arrest for Any Felony or Misdemeanor (Excluding Technical Violations): Cox Proportional Hazard Regression Model

	β	S.E.	Hazard Ratio
Work Release Completion (1=Yes; 0=No)	**−0.053*** **	**0.014**	**0.949**
Male	0.269***	0.018	1.308
Black	0.167***	0.015	1.181
Hispanic	−0.198***	0.029	0.820
Age at prison release	−0.039***	0.001	0.962
Education Tested Grade Level	−0.025***	0.002	0.976
Substance Abuse Dependence	0.116***	0.013	1.123
Psychiatric Diagnosis at prison release	0.092***	0.030	1.097
Suspected or confirmed gang member	0.165***	0.039	1.180
Employment prior to prison admission	−0.118***	0.014	0.890
Number of tattoos	0.010***	0.002	1.010
Primary Offense			
Murder/Manslaughter	−0.543***	0.071	0.581
Robbery	−0.074†	0.039	0.929
Other violent offenses	−0.174***	0.030	0.840
Burglary	0.022	0.025	1.022
Drugs	−0.065***	0.020	0.937
Weapons offenses	−0.088*	0.038	0.915
Other	−0.145***	0.026	0.865
Number of prior burglary offenses	0.009†	0.005	1.009
Number of prior theft offenses	0.001	0.002	1.001
Number of prior arrests	0.041***	0.001	1.042
Number of prior prison commitments[1]	0.196***	0.011	1.216
Time served in prison	−0.004***	0.001	0.996
One or more DRs within 365 days of release	0.048*	0.023	1.049
Total number of DRs per month	0.892***	0.133	2.439
Number of visits per month	−0.160***	0.010	0.853
Post-prison supervision	−0.132***	0.015	0.877
Year of Release from Prison			
2004	0.123***	0.023	1.131
2005	0.091***	0.024	1.096
2006	0.080**	0.023	1.086
2008	−0.042†	0.024	0.958
2009	−0.107***	0.025	0.898
2010	−0.193***	0.027	0.824
2011	−0.308***	0.031	0.735
Likelihood Ratio Chi-Square = 8,866.762***			
N = 43,374			

†p<.10, *p<.05, **p<.01, ***p<.001

[1] Truncated where 3= 4 or more prior commitments.
Reference categories: White, Property offense, Year of release from prison: 2007.
S.E. = Standard Error

Table 6. Effect of Work Release Completers versus Non-Participants on Recidivism: Cox Proportional Hazard Regression Models (Control Covariates Not Presented)

Recidivism Measure	N	β	S.E.	Hazard Ratio
Arrest for any felony or misdemeanor (excluding technical violations)	25,423	−0.153***	0.014	0.949
Arrest for any felony (excluding technical violations)	22,148	−0.034*	0.015	0.968
Conviction	13,650	−0.044*	0.019	0.956
Return to prison	12,435	0.018	0.020	1.018

*p<.05, ***p<.001

Total Observations = 43,374
S.E. = Standard Error

Table 7. Effect of Work Release Completers versus Non-Participants on Arrest for Any Felony or Misdemeanor (Excluding Technical Violations) Within One, Two, and Three Years of Release from Prison: Logistic Regression Model

	One Year		Two Years		Three Years	
	β	O.R.	β	O.R	β	O.R
Work Release Completion (1=Yes; 0=No)	**−0.105*** **	**0.900**	**−0.078** **	**0.925**	**−0.093*** **	**0.911**
Male	0.409***	1.506	0.359***	1.432	0.372***	1.450
Black	0.184***	1.203	0.220***	1.246	0.275***	1.317
Hispanic	−0.168***	0.845	−0.255***	0.780	−0.277***	0.758
Age at prison release	−0.051***	0.951	−0.054***	0.948	−0.054***	0.947
Education Tested Grade Level	−0.032***	0.969	−0.033***	0.968	−0.030***	0.970
Substance Abuse Dependence	0.144***	1.155	0.178***	1.194	0.175***	1.191
Psychiatric Diagnosis at prison release	0.162**	1.175	0.126*	1.134	0.080†	1.083
Suspected or confirmed gang member	0.252***	1.287	0.332***	1.395	0.321***	1.380
Employment prior to prison admission	−0.169***	0.845	−0.157***	0.855	−0.172***	0.842
Number of tattoos	0.009**	1.009	0.015***	1.015	0.013***	1.013
Primary Offense						
Murder/Manslaughter	−0.782***	0.457	−0.637***	0.529	−0.638***	0.528
Robbery	−0.0735	0.929	−0.067	0.935	−0.138†	0.871
Other violent offenses	−0.313***	0.731	−0.230***	0.794	−0.271***	0.762
Burglary	0.014	1.014	0.047	1.048	0.027	1.027
Drugs	−0.147***	0.863	−0.086*	0.918	−0.146***	0.864
Weapons offenses	−0.125†	0.882	−0.106	0.900	−0.201**	0.818
Other	−0.267***	0.766	−0.269***	0.765	−0.325***	0.723
Number of prior burglary offenses	0.028**	1.029	0.028**	1.029	0.007	1.007
Number of prior theft offenses	−0.000	1.000	0.002	1.002	0.001	1.001
Number of prior arrests	0.062***	1.064	0.070***	1.072	0.074***	1.076
Number of prior prison commitments[1]	0.271***	1.311	0.284***	1.329	0.287***	1.333
Time served in prison	−0.007***	0.993	−0.007***	0.993	−0.006***	0.994
One or more DRs within 365 days of release	0.093*	1.099	0.075†	1.078	0.084†	1.088
Total number of DRs per month	1.179***	3.252	1.477***	4.381	1.604***	4.974
Number of visits per month	−0.284***	0.753	−0.245***	0.783	−0.249***	0.780
Post-prison supervision	−0.185***	0.831	−0.206***	0.814	−0.186***	0.830
Year of Release from Prison						
2004	0.126**	1.135	0.176***	1.193	−0.207**	1.231
2005	0.104*	1.110	0.135**	1.144	−0.166***	1.180
2006	0.081†	1.085	0.135***	1.144	−0.157***	1.170
2008	−0.057	0.945	−0.066	0.936	−0.032	0.968
2009	−0.144**	0.866	−0.126**	0.881	−0.114***	0.893
2010	−0.276***	0.759	−0.230***	0.794	0.200***	0.819
2011[2]	−0.359***	0.698	0.411***	1.508	————	———
Likelihood Ratio Chi-Square	5,335.945***		6,794.456***		6,066.658***	
Max-rescaled R-square	0.169		0.205		0.224	
N	43,374		41,006		16,721	

†p<.10, *p<.05, **p<.01, ***p<.001

[1] Truncated where 3= 4 or more prior commitments.
[2]No offenders released during 2011 had a full three year follow-up period due to last follow up date of 04/30/2013.
Reference categories: White, Property offense, Year of release from prison: 2007.
O.R = Odds Ratio

Table 8. Effect of Work Release Completers versus Non-Participants on Recidivism and Employment: Logistic Regression Models (Control Covariates Not Presented)

Recidivism Measure	β	O.R.	χ^2	R^2	N
Arrest for any felony or misdemeanor (excluding technical violations)					
One Year	−0.105***	0.900	5,335.945***	0.169	43,374
Two Years	−0.078**	0.925	6,794.456***	0.205	41,006
Three Years	−0.093***	0.915	6,066.658***	0.212	35,141
Arrest for any felony (excluding technical violations)					
One Year	−0.068*	0.935	4,319.218***	0.146	43,374
Two Years	−0.040†	0.961	5,649.636***	0.175	40,873
Three Years	−0.057*	0.944	5,331.189***	0.188	35,141
Conviction					
One Year	−0.042	0.959	2,853.674***	0.123	43,374
Two Years	−0.051†	0.951	3,886.393***	0.142	41,145
Three Years	−0.060*	0.942	4,012.898***	0.153	36,040
Return to prison					
One Year	0.120*	1.127	1,853.456***	0.145	43,374
Two Years	0.029	1.029	2,545.459***	0.120	43,374
Three Years	0.024	1.024	2,815.173***	0.123	38,694
Post-prison employment					
Employed within the first quarter	1.888***	6.605	18,856.440***	0.470	43,374

†p<.10, *p<.05, **p<.01, ***p<.001

O.R = Odds Ratio

Table 9. Effect of Release from a Contract (Private) Work Release Facility on Arrest for Any Felony or Misdemeanor (Excluding Technical Violations): Cox Proportional Hazard Regression Model

	β	Std. Error	Hazard Ratio
Contract Work Release Facility (1=Yes, 0=No)	**−0.026**	**0.023**	**0.974**
Male	0.300***	0.026	1.344
Black	0.161***	0.019	1.174
Hispanic	−0.227***	0.036	0.797
Age at prison release	−0.038***	0.001	0.962
Education Tested Grade Level	−0.028***	0.003	0.973
Substance Abuse Dependence	0.121***	0.017	1.129
Psychiatric Diagnosis at prison release	0.063	0.057	1.065
Suspected or confirmed gang member	0.149**	0.050	1.161
Employment prior to prison admission	−0.118***	0.019	0.888
Number of tattoos	0.011***	0.002	0.587
Primary Offense			
Murder/Manslaughter	−0.532***	0.082	0.587
Robbery	−0.082†	0.048	0.912
Other violent offenses	−0.202***	0.039	0.819
Burglary	0.012	0.032	1.012
Drugs	−0.076**	0.026	0.926
Weapons offenses	−0.062	0.048	0.940
Other	−0.134***	0.035	0.874
Number of prior burglary offenses	0.007	0.006	1.007
Number of prior theft offenses	0.003	0.003	1.003
Number of prior arrests	0.042***	0.001	1.043
Number of prior prison commitments[1]	0.198***	0.014	1.219
Time served in prison	−0.004***	0.000	0.996
One or more DRs within 365 days of release	0.066*	0.030	1.068
Total number of DRs per month	0.971***	0.185	2.640
Number of visits per month	−0.171***	0.012	0.843
Post-prison supervision	−0.165***	0.019	0.899
Year of Release from Prison			
2004	0.199***	0.030	1.104
2005	0.102***	0.030	1.107
2006	0.184**	0.030	1.089
2008	−0.006	0.032	0.994
2009	−0.102*	0.034	1.903
2010	−0.176***	0.036	0.839
2011	−0.291***	0.040	07.48

Likelihood Ratio Chi-Square = 5,589.093***
N = 27,463

†p<.10, *p<.05, **p<.01, ***p<.001

[1] Truncated where 3= 4 or more prior commitments.
Reference categories: White, Property offense, Year of release from prison: 2007.

Table 10. Effect of Release from a Contract (Private) Work Release Facility on Recidivism: Cox Proportional Hazard Regression Models (Control Covariates Not Presented)

Recidivism Measure	N	β	S.E.	Hazard Ratio
Arrest for any crime (excluding technical violations)	15,653	−0.026†	0.022	0.974
Arrest for a felony (excluding technical violations)	13,672	0.002*	0.024	1.002
Conviction	27,463	−0.042	0.032	0.959
Return to prison	7,831	−0.074*	0.034	0.929

†p<.10, *p<.05

Total Observations = 27,463
S.E. = Standard Error

Table 11. Effect of Release from a Contract (Private) Work Release Facility on Arrest for Any Felony or Misdemeanor (Excluding Technical Violations) Within One, Two, and Three Years of Release from Prison: Logistic Regression Model

	One Year		Two Years		Three Years	
	β	O.R.	β	O.R.	β	O.R.
Contract Work Release Facility (1=Yes, 0=No)	**−0.039**	**0.963**	**−0.076**	**0.927**	**−0.049**	**0.952**
Male	0.447***	1.563	0.379***	1.461	0.393***	1.482
Black	0.184***	1.202	0.218***	1.243	0.279***	1.322
Hispanic	−0.193**	0.824	−0.292***	0.747	−0.314***	0.731
Age at prison release	−0.050***	0.951	−0.052***	0.950	−0.053***	0.949
Education Tested Grade Level	−0.035***	0.966	−0.037***	0.964	−0.034***	0.967
Substance Abuse Dependence	0.160***	1.174	0.181***	1.199	0.187***	1.207
Psychiatric Diagnosis at prison release	0.083	1.086	0.108	1.115	0.116	1.123
Suspected or confirmed gang member	0.232**	1.261	0.304***	1.355	0.252*	1.286
Employment prior to prison admission	−0.147**	0.864	−0.129***	0.879	−0.172***	0.842
Number of tattoos	0.010†	1.010	0.016***	1.016	0.013***	1.013
Primary Offense						
Murder/Manslaughter	−0.653***	0.521	−0.565***	0.569	−0.595***	0.551
Robbery	−0.117	0.890	−0.150†	0.861	−0.160†	0.852
Other violent offenses	−0.322***	0.725	−0.246***	0.782	−0.265***	0.767
Burglary	0.014	1.014	0.037	1.038	0.042	1.043
Drugs	−0.157**	0.855	−0.115**	0.891	−0.149***	0.861
Weapons offenses	−0.142†	0.868	−0.089	0.915	−0.113	0.893
Other	−0.219***	0.803	−0.262***	0.769	−0.271***	0.762
Number of prior burglary offenses	0.031**	1.031	0.030**	1.030	0.000	1.000
Number of prior theft offenses	−0.003	0.997	0.002	1.002	0.003	1.003
Number of prior arrests	0.063***	1.065	0.071***	1.074	0.073***	1.076
Number of prior prison commitments[1]	0.277***	1.320	0.272***	1.312	0.283***	1.327
Time served in prison	−0.007***	0.993	−0.007***	0.993	−0.006***	0.994
One or more DRs within 365 days of release	0.084	1.088	0.021	1.021	0.014	1.048
Total number of DRs per month	1.514***	4.543	2.063***	7.867	2.070***	7.915
Number of visits per month	−0.304***	0.738	−0.256***	0.774	−0.268***	0.765
Post-prison supervision	−0.161***	0.852	−0.192***	0.825	−0.177***	0.838
Year of Release from Prison						
2004	0.037***	1.038	0.123*	1.132	0.160**	1.173
2005	0.082***	1.085	0.157**	1.169	0.183***	1.202
2006	0.046***	1.047	0.126*	1.134	0.142***	1.152
2008	−0.052*	0.949	−0.034	0.966	0.021	1.022
2009	−0.164	0.849	−0.091†	0.913	−0.095†	0.910
2010	−0.344**	0.709	−0.189***	0.828	−0.167*	0.846
2011[2]	−0.378***	0.685	0.479***	1.614	———	———
Likelihood Ratio Chi-Square	3,259.928***		4,245.585***		3,812.750***	
Max-rescaled R-square	0.166		0.205		0.211	
N	27,463		25,772		22,130	

†p<.10, *p<.05, **p<.01, ***p<.001

[1] Truncated where 3= 4 or more prior commitments.
[2]No offenders released during 2011 had a full three year follow-up period due to last follow up date of 04/30/2013.
Reference categories: White, Property offense, Year of release from prison: 2007.
O.R = Odds Ratio

Table 12. Effect of Release from a Contract (Private) Work Release Facility on Recidivism and Employment: Logistic Regression Models (Control Covariates Not Presented)

Recidivism Measure	β	O.R.	χ^2	R^2	N
Arrest for any felony or misdemeanor (excluding technical violations)					
One Year	−0.039	0.963	3,259.928***	0.166	27,463
Two Years	−0.076	0.950	4,245.585***	0.205	25,772
Three Years	−0.049	0.952	3,812.750***	0.211	22,130
Arrest for any felony (excluding technical violations)					
One Year	0.048	1.049	2,726.756***	0.148	27,463
Two Years	0.003	1.003	3,524.727***	0.177	25,682
Three Years	−0.005	0.995	3,322.897***	0.187	22,130
Conviction					
One Year	−0.071	0.931	1,708.395***	0.120	27,463
Two Years	−0.028	0.972	2,376.753***	0.140	25,885
Three Years	−0.042	0.959	2,421.429***	0.149	22,714
Return to prison					
One Year	−0.055	0.947	1,328.636***	0.161	27,463
Two Years	−0.077	0.926	1,781.906***	0.134	27,463
Three Years	−0.118*	0.889	1,890.298***	0.132	24,294
Post-prison employment					
Employed within the first quarter	0.264***	1.302	10,413.398***	0.432	27,463

*p<.05, ***p<.001

O.R. = Odds Ratio

Table 13. Isolated Sub-Group Effects of Work Release Completers versus Non-Participants on Recidivism: Cox Proportional Hazard Regression Models (Control Covariates Not Presented)

	Arrest for a new crime			Arrest for a felony			Conviction			Return to prison		
	β	Hazard Ratio	N	β	Hazard Ratio	N	β	Hazard Ratio	N	β	Hazard Ratio	N
Males Only	−0.052***	0.950	35,003	−0.041*	0.959	35,003	−0.052**	0.949	35,003	0.009	1.009	35,003
Females Only	−0.033	0.967	8,372	0.023	1.023	8,372	−0.002	0.998	8,372	0.059	1.061	8,372
White	−0.027	0.974	22,597	0.002	1.002	22,597	−0.030	0.970	22,597	0.054	1.056	22,597
Black	−0.073***	0.930	17,778	−0.064**	0.938	17,778	−0.053	0.949	17,778	−0.019	0.981	17,778
Hispanic	−0.100	0.905	3,000	−0.175*	0.839	3,000	−0.195*	0.823	3,000	−0.075	0.928	3,000
Age Groupings												
15−24	−0.010	0.990	7,040	−0.005	0.995	7,040	0.001	1.001	7,040	0.031	1.032	7,040
25−29	−0.067*	0.935	9,443	−0.066*	0.936	9,443	−0.800*	0.921	9,443	0.014	1.014	9,443
30−39	−0.053*	0.945	13,813	−0.031	0.969	13,813	−0.076*	0.926	13,813	0.016	1.017	13,813
40−49	0.000	1.000	9,507	0.023	1.024	9,507	0.009	1.009	9,507	0.100*	1.105	9,507
50+	−0.139*	0.870	3,572	−0.047	0.954	3,572	0.088	1.092	3,572	0.075	1.078	3,572
Primary Offense												
Murder/Manslaughter	0.142	1.154	906	0.108	1.114	906	0.479	1.614	906	0.385	1.470	906
Robbery	−0.106	0.900	1,615	−0.137	0.872	1,615	−0.035	0.966	1,615	0.117	1.124	1,615
Other Violent	−0.130*	0.878	3,293	−0.140*	0.869	3,293	−0.102	0.903	3,293	−0.049	0.952	3,293
Burglary	−0.085*	0.919	5,797	−0.058	0.943	5,797	−0.142**	0.867	5,797	−0.138*	0.871	5,797
Property	−0.026	0.975	7,736	−0.005	1.005	7,736	−0.030	0.970	7,736	0.056	1.057	7,736
Drugs	−0.038	0.963	18,096	−0.026	0.974	18,096	−0.014	0.986	18,096	0.036	1.037	18,096
Weapons	−0.007	0.994	1,456	−0.053	0.984	1,456	−0.035	0.964	1,456	−0.056	0.946	1,456
Other Crimes	−0.002	0.997	4,476	0.023	1.024	4,476	−0.051	0.950	4,476	0.094	1.099	4,476
Post-prison supervision: Yes	−0.013	0.987	12,206	0.009	1.009	12,206	−0.042	0.959	12,206	0.115***	1.121	12,206
Post-prison supervision: No	−0.057***	0.945	31,169	−0.044*	0.957	31,169	−0.045*	0.956	31,169	−0.023	0.977	31,169

* p<.05, **p<.01, ***p<.001

O.R. = Odds Ratio

Table 14. Isolated Sub-Group Effects of Work Release Completers versus Non-Participants on Employment after Prison Release: Logistic Regression Models (Control Covariates Not Presented)

	Employment Within the First Quarter After Release		
	β	O. R.	N
Males Only	1.837***	6.275	35,003
Females Only	2.072***	8.033	8,372
Black	1.788***	6.666	17,778
White	1.897***	6.574	25,597
Hispanic	1.822***	6.187	3,000
Age Groupings			
15−24	1.677***	4.651	7,040
25−29	1.933***	6.971	9,443
30−39	1.716***	5.563	13,813
40−49	1.964***	7.129	9,507
50+	2.499***	12.166	2,233
Primary Offense			
Murder/Manslaughter	1.827***	6.215	906
Robbery	1.621***	5.058	1,615
Other Violent	1.788***	5.976	3,293
Burglary	1.886***	6.594	5,797
Property	1.754***	5.775	7,736
Drugs	1.952***	7.043	18,096
Weapons	1.873***	6.505	1,456
Other Crimes	1.920***	6.818	4,476
Post-prison Supervision: Yes	1.698***	5.465	12,206
Post-prison Supervision: No	1.948***	7.018	31,169

***p<.001

O.R. = Odds Ratio