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Beyond the Employment Dichotomy: An Examination of Recidivism and Days Remaining in the Community by Post-Release Employment Status

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Abstract

Criminological research has tended to consider employment in a dichotomy of employed versus unemployed. The current research examines a sample of individuals one-year post-release to assess the extent to which four distinct employment categories (full-time, part-time, disabled, and unemployed) are associated with reincarceration and days remaining in the community. Findings indicate disabled individuals remain in the community longer and at a higher proportion compared to other employment categories. Further, unique protective and risk factors are found to be associated with each employment category while some risk factors (e.g., homelessness) highlight the importance of addressing reentry barriers regardless as to employment status.

While the positive impact of employment upon release for returning citizens¹ are rather undisputed, the particular way in which employment benefits individuals remains unclear. This may be due, in part to the varying operationalization of employment across research (Webster et al., 2007). Generally, research tends to consider employment in a dichotomy, comparing individuals who are employed to those who are unemployed. Two pressing issues arise from this dichotomy. First, there are likely distinct benefits between full-and part-time work and these two groups are not uniformly considered across research. Secondly, disabled individuals are often discounted in this dichotomy. Individuals reporting unemployment due to disability are removed from analysis, considered unemployed if operationalized as 'not

¹Throughout this article, positive reentry language is used. A focus on returning citizens, rather than use of the language "previously incarcerated" or "ex-offender" is preferred to avoid stigma and labeling effects. Language also reflects positive accomplishments such as "time remaining in the community" rather than the focus on reincarceration as the event. Further, focus is on protective factors, those that reduce the odds of reincarceration thereby increasing time in the community, as well as risk factors, those that increase the odds of reincarceration.

working,' or neglected from the conversation of measurement entirely. While removed from the labor market, disabled individuals represent a unique group as they may have a physical disability that prevents them from working yet may earn income from disability insurance, similar to the monetary support employed individuals receive. If individuals who are disabled experience the positive benefits of income similar to employed individuals, then current research likely over inflates estimates of recidivism- that is research including disabled individuals as unemployed may be underestimating the effect size of unemployment on recidivism. Because little research has examined post-release disability in the literature, it is likely there are distinct post-release effects which have not been identified. Since employment has been found to be a vital resource in the reentry process at reducing recidivism, it is likely that the effects on recidivism vary by employment statuses in ways that have yet to be fully understood. To address the limitations of the employment dichotomy, the current research explores the unique protective and risk factors of recidivism, by four employment statuses: full-time employed, part-time employed, unemployed, and disabled.

Previous Research

Extant research has shown that individuals who secure post-release employment are less likely to be reincarcerated compared to their non-employed counterparts (Apel & Horney, 2017; Bahr, Harris, Fisher, & Armstrong, 2010; Makarios, Steiner, & Travis, 2010; Morgan, 1994; Sims & Jones, 1997; Skardhamar & Telle, 2012; Tripodi, Kim, & Bender, 2010; Van der Geest, Bijleveld, & Blokland, 2011; Welsh, 2007; Zgoba, Haugebrook, & Jenkins, 2008). Largely, research has focused on whether employment has reduced the odds of recidivating. More recently there has been a shift to understanding how quickly the odd to recidivism occurs through advanced methodologies of time series models (Berg & Huebner, 2011; Duwe & Clark, 2017; Tripodi et al., 2010). Time series analyses account for the variation in time (e.g., days, months, years) for individuals in their risk to reincarceration. One such study utilizing these techniques found that compared to employed individuals, unemployed returning citizens averaged 17.3 months in the community compared to the employed groups' 31.4 months, and having employment reduced the monthly hazard ratio to reincarceration by 68.5% (Tripodi et al., 2010). Other time series studies yielded similar results, such that only 1/4 of unemployed returning citizens were not re-arrested within a 600-day period compared with nearly half (42%) of employed returning citizens (Berg & Huebner, 2011). Further understanding of the factors which increase the amount of time individuals remain in the community is crucial, and the current research explores variation in employment statuses as one such possibility.

Full versus Part-time Employment

The research previously mentioned only considers employment dichotomously when referring to recidivism outcomes. Further, research is largely inconsistent in whether it accounts for part-time employment. Several studies include part-time employment as a unique employment status (McCoy, Comnerford, & Metsch, 2007; Webster et al., 2007; Welsh, 2007). Others include part-time work in the unemployed/reference category (Berg & Huebner, 2011) or are unclear and vague on how they consider part-time work (Koo,

Chitwood, & Sanchez, 2007; Nally, Lockwood, Ho, & Knutson, 2014; Sims & Jones, 1997; Skardhamar & Telle, 2012; Tripodi et al., 2010; Van der Geest et al., 2011; Zgoba et al., 2008). Part of the latter is due to the use of official records and gatekeepers as providing employment data. For example, Tripodi et al. (2010) received their data from the state parole board and individuals were coded as employed if, "they officially obtained employment when released from prisons and received compensation for their services" (p. 710). Research in Norway relied on employees being registered in the central employee register in order to count as employed, with no distinction of full versus part-time (Skardhamar & Telle, 2012). While it may appear that these differences are no more than an operationalization annoyance, the subsequent inferences create gaps of knowledge and a disconnect with criminological theory.

One possible explanation for the positive effects of employment can be found within a life course theory framework. This theory posits that the mere existence of employment (i.e., a social bond) does not alone matter but rather the quality and strength of social bonds effect recidivism (Sampson & Laub, 1995). Specifically, the strength of the social bond of employment is considered via job stability, such that weak bonds are assumed when one is unable to maintain the same employment for an extended period or is only a temporary figure at the workplace. From this perspective, consideration of the distinctions in employment are warranted, as some employment scenarios will provide stronger social ties. As of interest to the current study, the difference between full versus part-time employment may offer insights to job stability. Due to difficulties obtaining a job stemming from a formal criminal history, individuals reentering society may have no other option but to accept part-time employment.² Regardless of personal motivation, the lack of the structure of part-time work compared to the longer and typically more stable schedule of full-time work may not provide the much-needed job stability that has been theorized to lead to desistance.

Studies examining post-release employment differences from a life course perspective have found greater benefit among full-time work. Bahr et al. (2010) found individuals who worked forty or more hours per week were more likely to be successfully released from their parole in the three years post-release. The differences were quite stark with only 10% of the less than forty-hour group being discharged from parole within three years compared to 63% of the forty-hour or more group.

Disability

Limited research has examined disability as a unique employment category. Welsh (2007) included a distinct code of employment for individuals who were unemployed and unable to work. Interestingly, this group was the excluded reference group and OLS regression coefficients were all negative, indicating that all other employment categories (employed full-time, part-time, unemployed and able) were comparatively less likely to recidivate. A footnote in the article details that in this category, 36% were disabled. The other individuals

²Previous research indicates casual and part-time employment to characterize much of the work pre- and post-incarceration (Holzer, 2003; Litchenberger, 2006). While the exact mechanisms for this are unknown, some of the overrepresentation of returning citizens in part-time work is due to the industries where they are offered work (i.e., food and service, temporary employment agencies) (see Litchenberger, 2006).

in this category were re-institutionalized, thus not truly capturing disability and more likely inflating the recidivism of this group compared to the others.

Makarios and colleagues (2010) considered four categories of employment to predict recidivism; stable employment where the individual held a job the entire study period, unstable employment, unemployed the entire period, and disabled/retired/social security insurance (SSI) recipients (see p. 1383). While this category of disabled also contains retired individuals, it is the closest to a disabled category that was found in literature. Individuals with stable employment as well as those who were receiving income from retirement, disability, or SSI were less likely to recidivate (Makarios et al., 2010). The disability group had reduced odds compared to the unstable employment group to remain arrest free during the study period.

Considering the previously explained conceptualizations of employment that utilize state/official records, it seems likely that individuals who are disabled would be considered unemployed. If the findings of Makarios and colleagues (2010) hold across other reentry populations, considering disabled individuals as equivalent to those in the unemployed group would inaccurately capture the differences between employed and unemployed individuals in these studies.

Individuals who report being disabled or receiving SSI or social security disability income (SSDI) may be physically unable to offend further. While potentially rare, this could be the case for individuals who have had terminal illnesses progress during incarceration, or those permanently injured during the commission of their crime(s). However, little research has examined the profile of individuals reporting pre-or post-release disability to allow for any inferences. There are several disabilities which may render an individual unable to work, but still able to commit criminal offenses. Certainly, there could be some scenarios where a disability would exacerbate criminal offending, such as the case of illegal drug use to alleviate pain. Similar to income from paid employment, following a strain theory perspective, disabled individuals who are able to receive SSI or SSDI may be less likely to offend as they have access to legitimate means to meet their needs. Strain theories posit crime is often caused by the desire to achieve culturally approved and emphasized goals of wealth and success, within the limits of social structure which constrain the possibility of success. This is most often considered when examining unemployment such that individuals lack the monetary means for their needs and are proposed to commit crimes that provide them with money and/or success (i.e., the adaptation known as innovation according to Merton [1938]). From this perspective however, disability would factor no differently than full-time employment so long as economic needs could be met. If disabled individuals have post-release outcomes similar to those who are employed full-time, researchers should consider the similarities between the groups when theorizing recidivism outcomes. Since little is known, it is alternatively plausible that by counting disabled individuals as unemployed, the impacts of unemployment on recidivism are being inflated, as previously mentioned.

Protective and Risk Factors

As alluded to, employment is expected to benefit individuals through a myriad of mechanisms. Although the exact mechanisms of the employment-crime vary given theoretical orientations (see Apel & Homey, 2017; Uggen & Wakefield, 2008), employment offers monetary support, routine, social support systems, exposure to conventional others, and informal social control (Sampson & Laub, 1995; Uggen, 2000; Uggen & Wakefield, 2008). However, employment is only one of many important reentry factors to reduce the risk of recidivism.

Lack of, or unstable social support networks, continued substance use and substance use disorders, co-morbid disorders, and homelessness have consistently been identified as significant risks to post-release desistance (Baillargeon, Binswanger, Penn, Williams, & Murray, 2009; Petersilia, 2003; Stoolmiller & Blechman, 2005; Visher & Travis, 2003; Walter, Wiesbeck, Dittmann, & Graf, 2011). Individuals with a substance use, mental health, or co-morbid disorders are overrepresented in prisons and jails (Freudenberg, 2001; James & Glaze, 2006). Continuum of care models which provide substance use treatment during incarceration and post-release have been demonstrated to reduce the risk of recidivism (Hiller, Knight, & Simpson, 1999; Inciardi, Martin & Butzin, 2004; Matheson, Doherty, & Grant, 2011; Robbins, Martin, & Surratt, 2009). Alternatively, utilization of health services such as inpatient psychiatric services has been associated with increased risk of recidivism (O'Brien & Bates, 2005). Consensus among research would indicate that overall, individuals who have stable and supportive social networks, support for their substance use disorder and/or other health issues, stable housing, and employment are most likely to remain in the community (Berg & Huebner, 2011; Makarios et al., 2010; Visher & Travis, 2011). Further, rural and urban differences may affect employment opportunities post-release. While both have similar rates of unemployment, rural communities have been found to have lower wages than urban communities and be more resource strained for provision of reentry services (Ethridge, Dunlap, Boston, & Staten, 2014; Wodahl, 2006).

The current research considers the potential importance of employment beyond a dichotomy by examining the distinct protective and risk factors associated with time to recidivism for full-time, part-time, unemployed, and disabled individuals 12-months postrelease. To that end, two research objectives are considered: (1) To examine time in the community following release as a function of post-release employment status; (2) To better understand the unique protective and risk factors associated with post-release employment. Based on previous literature, it is hypothesized that unemployed individuals will be least likely to remain in the community, while full-time and disabled individuals will remain in the community longer, owing to unique supports.

Methods

Sample

This study includes secondary data from the combined 2011-14 Criminal Justice Kentucky Treatment Outcome Study (CJKTOS). Individuals who are enrolled in a substance abuse treatment program through the Department of Corrections are given a baseline assessment

by treatment counselors in prisons, jails, and community custody programs (e.g., halfway house). Follow-up interviews are completed 12 months after release by the University-based evaluation team. Follow-up interviews are conducted via random selection to include a number of baseline participants proportionate to the treatment programs (i.e., jail, prison, community custody). The six-month long program follows a therapeutic community model (De Leon, 2000). The program is taught by trained Department of Corrections staff and includes cognitive therapies, behavioral intervention classes to alter criminal thinking patterns, and the participatory communities in which peers hold each other accountable for their behaviors. Individual and group activities focus on the aforementioned and emphasize goal setting to include substance treatment, family, and/or employment goals. The study is on-going since 2005 in conjunction with the Kentucky Department of Corrections and University of Kentucky's Center on Drug and Alcohol Research. Individuals provide informed consent for the follow-up study during the initial assessment and the study maintains Institutional Review Board approval.

The substance abuse program (SAP) is available to any offender with a substance use history with 24 months left to serve before parole or release from prison, jail, or community custody program, with no recent disciplinary violations. Participants are eligible for inclusion in the follow-up study if they consent to participate, were released during the specified time-frame, and provided locator information for community contact. The current sample is representative of the overall population from which it was pulled. There were no significant differences from the total baseline SAP participants and the follow-up, with the exception of the year 2010 where a very low number of females were released so all consenting females were included in follow-up (62% male follow-up versus 87% male SAP total). Participants who were not located within 14 months post-release were excluded (N=232). Follow-up rates were above 80% for every year. The current research utilizes follow-up data for those released 2011-14, with select baseline assessment variables included. A total of 1,272 participants were included in current analyses.

Measures

The dependent variable considers both reincarceration status as well as time until reincarceration. The dichotomous measure of reincarceration was gathered from the Department of Correction's Kentucky Offender Management System (KOMS) which is verified by University of Kentucky follow-up researchers. Utilization of KOMS is more accurate than self-reports of recidivism as this creates a variable which counts reincarceration as only those who were released with completed sentences (i.e., not furloughed), released to the community on parole (i.e., not AWOL, escaped, transferred), does not count reincarceration for crimes committed in prison, and counts an inmate as eligible for recidivism only once per year. Time until reincarceration was measured in days. If the individual was reincarcerated, the time in the community was calculated from the date of release to date of reincarceration. Individuals were right-censored, meaning in time-series analyses all individuals who were not reincarcerated received a time variable of 365 days.

Several demographic variables were included. Age, gender (1=male), marital status (1=single, never married), race (1=white), and years of education were included. Urban-

Rural classification was measured via respondent's reported county of residence post-release. Counties were coded using the 2013 National Center for Health Statistics Urban-Rural classification scheme for counties ranging from (1) large central metro to (6) completely rural, less than 2,500 population (Ingram & Franco, 2014). Additionally, a control was included for sample recruitment to include prison, jail, or a community custody program.

Various substance use and health measures were considered. Participants self-reported homelessness if they lived in a shelter, street/outdoors, or an institution 'most of the time' in the past 12 months. Alcohol relapse in the prior 12 months was a dichotomous self-reported measure if the participant reported alcohol use at follow-up and considered it to be a relapse. Substance relapse in the prior 12 months was a dichotomous measure if the participant reported using any drugs (e.g., cocaine, marijuana) in the prior 12 months and considered it to be a relapse. Emergency room and outpatient visits were a self-reported count in the previous 12 months. During baseline, participants were asked a series of pain questions to introduce them to the concept of chronic pain. At follow-up, chronic pain was measured as a dichotomous response to the question, "Do you have any current chronic physical pain (pain that lasted more than 3 months)?" Respondents reported if they had an Alcoholic or Narcotics Anonymous sponsor at follow-up. Baseline assessment data was utilized in order to account for the length of incarceration, in years, of respondents.

The main variable of interest to the current study is type of employment which was examined as four dummy variables, with full-time employment as the reference group in the full model. Respondents were asked what was their usual employment pattern in the past 12 months at follow-up. The four variables included full-time employed (defined as 35+ hours per week), part-time employed (less than 35 hours per week), unemployed, and disabled (self-reported unemployment due to disability). Individuals status or reason for being unemployed included those who stated they were actively looking for work (n=159), doing volunteer work (n=1), retired (n=2), homemaker (n=6), not looking for work (n=44), spent most of their year incarcerated (n=99), or other nondisclosed (n=4). An attempt to consider job stability was measured via the number of jobs a participant reported in the prior year. The variable is continuous until respondents reported 5 or more jobs (5=5 or more jobs). The number of weeks until a respondent found a job is continuously measured. Additionally, pre-incarceration employment was measured with full and part-time being compared to those reporting unemployment.

Analytic Plan

Descriptive statistics and bivariate tests of significance (i.e., chi-square and t-tests) were considered on all variables of interest. Due to the time-varying nature of the data, event history analysis techniques were used. To address research question one, descriptive statistics of employment groups and recidivism via Cox modeling techniques, as well as ANOVA post-hoc contrasts for comparisons among groups were compared. All data were analyzed using Stata/SE version 13.1.

A block model approach with Cox proportional hazard modeling is utilized such that demographic variables were entered first, followed by substance use and health variables,

and employment variables. Finally, the Cox model was limited by each employment group in order to decipher the unique protective and risk factors (research question two) to recidivism for full, part-time employed, unemployed, and disabled.

Results

Table 1 provides descriptive statistics and bivariate significance for the independent variables from the combined multi-year follow-up data. The majority of the sample was male (79.25%), white (78.62%) with nearly 12 years of education (12=12th grade or GED). Almost half were single (46.31%). Approximately 1 in 10 participants were homeless (11.79%). Further, almost a third had an AA or NA sponsor post-release (30.35%) and 16.82% reported an alcohol relapse and 30.35% a drug relapse in the past year. A nearly equal amount of respondents lived in rural and urban areas (\bar{x} =3.89; 3=Medium metro) post-release, specifically 47.41% lived in urban areas with populations over 250,000 and 52.59% lived in more rural areas (demographics not shown). Respondents averaged less than 1 emergency room visit (0.81) and 6.23 outpatient visits, while 35.53% reported chronic pain. Respondents were incarcerated for an average of 2.09 years.

The majority of persons were employed full-time (47.33%) and 17.45% worked part-time. Unemployed individuals comprised 24.76% of the sample, and 10.46% were disabled. Sixty-three percent of individuals who were disabled report receiving disability funds (demographics not shown). Full and part-time employed individuals reported an average of 1 job in the year post-release (1.83) that took an average of 4.89 weeks to obtain.

Bivariate differences among the employment groups compared to the total sample were found mostly among the full-time employed and disabled group. Compared to the total sample the full-time employed were younger, with more education, more likely to be male, less likely to be homeless, less likely to have a drug or alcohol relapse in prior 12-months, more likely to have a sponsor and past employment, and have less emergency room visits and chronic pain. The disabled group were older, with less education, more likely to be single, less likely to have been homeless or have prior employment, and had more emergency room and outpatient visits as well as reported more chronic pain. Part-time individuals were less likely to be white and more likely to have an alcohol relapse. Unemployed individuals were younger, more likely to be single, homeless, without prior employment and report not having a sponsor and having a drug relapse. However, the data is cross-sectional, inferences of temporality cannot be made regarding the variables and employment (e.g., was an individual homeless before or after they were unemployed).

Time in the community by employment status

To assess the first research question of how time in the community varies by employment status, Table 2 examines the dependent variable among employment groups. Overall, the percentage remaining in the community one-year post-release was 74.76%. The disabled group had the most individuals remaining in the community one-year post-release (87.50%). Part-time employed individuals (82.61%) and full-time employed individuals (81.17%) had high success rates as well. Conversely, only 51.59% of unemployed individuals had not been reincarcerated one-year post-release. These trends are further reflected in the average

number of days in the community. The average days remaining in the community was lowest among the unemployed group (260.09). ANOVA post-hoc contrasts revealed that compared to the three other groups (full, part-time, and disabled), the unemployed mean days in the community was statistically significantly different at the $p < .001$ level. Disabled individuals remained in the community the longest, with an average 346.45 days. These data are graphically represented via Kaplan-Meier Survival curves in Figure 1. The stark difference in curves between full, part-time and disabled compared to unemployed demonstrates the higher likelihood of reincarceration for unemployed individuals. Differences are less apparent between full, part-time, and disabled, especially during the earlier time periods. Further comparison of the total sample curve to the curve broken into employment status specific curves, reveals the pull of unemployed individuals on the total sample recidivism.

Unique protective and risk factors by employment status

Table 3 provides results for a Cox proportional hazard model predicting reincarceration while accounting for the time variable of days in the community. Model 1 containing demographic variables indicates increasing age and education level, as well as living in less urban areas had a significant negative association with recidivism. Positive significant associations with recidivism were found among single (never married) and white individuals. When substance use and health variables were entered in model 2, age, education level, race, and marital status were no longer significant. Significant protective factors (i.e., those variables with significant negative associations with recidivism as indicated with a hazard ratio below 1) included living in less urban areas ($HR=0.91$; $p < .01$) and having an AA/NA sponsor ($HR=0.62$; $p < .001$). Significant risk factors (i.e., those variables with significant positive associations with recidivism) included homelessness ($HR=7.98$; $p < .001$) and substance use relapse ($HR=2.29$; $p < .001$).

Model 3 includes the addition of employment variables. This full model indicates unemployed individuals have a 127% increase in odds of reincarceration ($HR=2.27$; $p < .001$). Additionally, the number of jobs in the prior year is significant such that as an individual reports each additional job, the likelihood of recidivism increased by 20% ($HR=1.20$; $p < .001$). The remaining variables of less urban residence and having a sponsor remained protective, while homelessness and substance relapse remained significant risk factors.

In order to determine the unique characteristics of various employment categories relationship with reincarceration (research question two), Cox proportional hazard models were stratified by employment group. Results in Table 4 indicate that those who obtained full-time employment have a unique set of protective and risk factors compared to the full sample. With increasing education level, full time employed individuals were more likely to remain in the community ($HR=0.88$; $p < .01$). Additionally, having a sponsor ($HR=0.63$; $p < .05$) and increased time to employment as measured by weeks until employed ($HR=0.93$; $p < .01$) significantly reduced the likelihood of recidivism among full-time employees. Alternatively, individuals with full-time employment faced a greater likelihood of reincarceration due to homelessness ($HR=5.76$; $p < .001$), substance use relapse ($HR=4.19$;

$p < .001$), if they were white ($HR = 1.97$; $p < .05$), or with increasing number of jobs in the previous year ($HR = 1.35$; $p < .001$).

Among individuals with part-time employment, those who lived in increasingly rural locations ($HR = 0.79$; $p < .05$) were at reduced risk of recidivism. Individuals who were homeless ($HR = 7.38$; $p < .01$) or those with increasing outpatient visits ($HR = 1.02$; $p < .05$) were at increased likelihood of reincarceration. Similar to part-time workers, unemployed individuals were protected if they lived in less urban areas ($HR = 0.90$; $p < .05$), and the likelihood of reincarceration increased if they were homeless ($HR = 5.50$; $p < .001$).

Disabled individuals had a significant negative association with recidivism with increasing outpatient visits ($HR = 0.86$; $p < .05$). No significant risk factors were determined; however alcohol use relapse did approach significance ($HR = 3.68$; $p = .07$). To consider a strain theory perspective, two additional models (not shown) were considered. A variable measuring income from disability in the past 30 days was added to Model 7. Income from disability was not significant with a p-value equal to 0.13. Inclusion of a recoded categorical variable of below mean/above mean disability income ($\bar{x} = 538.78$) yielded a hazard ratio of 0.32 ($p < .05$) indicating above average monthly income from disability (SSDI/SSI) may offer a positive effect on desistance.

Discussion

The research presented here does not intend to undermine the variety of factors that create challenges upon the reentry process but rather highlights that mixed findings in recidivism literature may be due to an overarching issue of operationalization and failure to account for the unique factors associated with various employment statuses. There are a variety of barriers individuals must face when reentering society, and understanding if and how these factors vary by employment status can contribute to the success of returning citizens.

The current research aimed to determine how length in the community varied by employment status. Supporting previous criminological research, unemployed individuals were least likely to remain in the community and for the least amount of days. The fact that disabled returning citizens remained in the community the longest with the least amount of recidivism among all groups is an important finding for future research. While little is known about the disabilities of prisoners (Kitei & Sales, 2008; Krienert, Henderson, & Vandiver, 2003), this finding emphasizes the need for future research to understand returning disabled citizens needs and potentially unique post-release situations. The previous research which included disability as a post-release outcome supports the findings of the current study (Makarios et al., 2010). It remains imperative to understand the types of disabilities individuals have and how navigation of various disabilities can impede or facilitate reentry. Criminal justice systems should provide formal disability screenings and appropriate assessments to assist with proper linkage to care and post-release planning, as many individuals are not properly screened (Harner, Budescu, Gilihan, Riley, & Foa, 2015; Wilper et al., 2009). For individuals receiving SSI/SSDI prior to incarceration, it is plausible they have skills that allow them to navigate and manage post-release bureaucracies more efficiently than other returning citizens. Alternatively, since little is known about the type of

disabilities in the current sample, individuals may be physically unable to continue offending, have 'aged out' of crime, or have desisted for a plethora of other reasons unrelated to their disability. Indeed, the current bivariate results support that individuals reporting disability were significantly older ($\bar{x}=42.98$). Future research should consider disabled individuals as a unique employment category to explore this finding further. When considered in the context of strain theory, it appears there is something beyond simply access to economic resources that protects these individuals from recidivism. Only 63% of the disabled sample was receiving SSDI benefits, yet nearly 83% remained in the community, and SSDI income only significantly reduced recidivism if above the mean disability income level. Despite many factors that may appear to place disabled individuals more at risk in bivariate examinations (e.g., lower levels of education, increased medical needs, lack of prior employment), this group displays a potential resiliency that should be explored both quantitatively and qualitatively. Further understandings of the mechanisms which protect and promote a successful reentry among returning citizens with a disability may provide insights into unaddressed and underserved needs among returning citizens in general.

Findings indicated disabled individuals were protected from reincarceration with more frequent outpatient visits. This is notable, as too often the continuum of care is disrupted when individuals reenter society (Freudenberg, 2001). Having a regular source of care to frequent for outpatient visits might provide positive social support, assist in preventing high risk behaviors, or provide linkage to other social service providers (Sheu et al., 2002). It is also possible that individuals who seek outpatient care more often are more proficient at navigating bureaucracies, social services, or are more motivated. Prior research, among women, has indicated that linkage to a primary care provider is a protective factor for recidivism (Lee, Vlahov, & Freudenberg, 2006; Sheu et al., 2002). Given that criminal justice involved individuals have more chronic health needs and disproportionate rates of chronic physical and mental health conditions (Binswanger et al., 2009; Bronson et al., 2015; Wilper et al., 2009), policies and programs aimed at providing a continuum of care upon release would be beneficial for all returning citizens, and particularly could promote a successful reentry among disabled returning citizens.

The differences between full and part-time employees' time in the community and recidivism were not substantial (81.17% vs. 82.61%; 340.14 vs. 343.21 respectively). Thus, studies that have previously included part-time work in the same category as full-time employed may not be skewing results as hypothesized in the introduction to this paper. However, the included job variables provide support to the life course perspective and extant research of job stability and quality. Utilizing the number of jobs in the prior 12 months as a proxy for job stability, the current research adds to existing studies which have found that the mere existence of a social control is not sufficient for it to provide effects of desistance (Sampson & Laub, 1995; Sims & Jones, 1997). In the context of a life course framework, the current research suggests that full and part-time work may not offer distinct differences. While it may seem that fewer hours spent at a place of employment would create a weaker bond, it appears the more important measure of the strength of the social bond of employment is job stability. When continuously disrupted, through changing employment, bonds are hard to form. Comparatively, it appears the positive effects of employment are

obtainable no matter the number of hours spent at the job (when considered in dichotomy of 35 or more /35 or less). However, future research should examine if various thresholds exist within part-time work through additional operationalization.

Additionally, prior research places importance on the quality of the job as providing a path to desistance (Uggen, 1999). While job quality was not measured in the current study, the number of weeks until employment was obtained was significantly associated with a lower hazard for the full-time employment group. It is a possibility that individuals may have been selective in obtaining a job rather than simply settling for any employment. This is rather plausible, as the mean number of weeks to obtain a job in Table 1 illustrate that only approximately one month passed for the average individual. Qualitative accounts of reentry and criminal networks indicate that individuals fight for autonomy and aspire for quality jobs, rather than settling for low-quality and low-pay employment (Bourgois, 2002; Fader, 2013). Future research assessing these variables among both full and part-time employed returning citizens can further assist in understanding this relationship.

Several unique factors presented by employment status indicating support for the idea that individuals may face unique challenges as well as receive unique supports, depending on their post-release employment situation. There are certain reentry barriers that presented in the total sample model and continued in the stratified employment models, such as homelessness-indicating the procurement of housing continues to be a significant barrier impeding the stability of returning citizens. In fact, for many individuals given the large effects of homelessness in models 2 through 7, lack of housing may have been the main or sole factor that increased their hazard of reincarceration.

Unique risk factors included substance use relapse for full-time employed and outpatient visits for part-time individuals. It should be recalled that the current sample all reported a substance abuse history and participated in substance abuse programming while incarcerated. Individuals who had full-time employment faced a risk to recidivism due to substance use relapse. While the context and further information of relapses are unknown in the current study, it may be that individuals working full-time are more susceptible to employer drug-screening measures that would risk their employment and parole if screened positive. Interestingly in bivariate analyses full-time individuals were less likely to have reported a drug relapse. A relapse to substance use may have more detrimental effects for individuals working full-time insofar as the likelihood of impacting their judgment at work, ability to maintain a full-time schedule, driving while impaired, and other necessities unique to maintaining a full-time job.

While disabled individuals were protected from reincarceration with increasing outpatient visits, individuals who worked part-time had an increase in their hazard to reincarceration. It may be more difficult to navigate an empathetic relationship with employers when interaction time is cut to less than 40 hours a week. It is also possible that individuals working part-time should actually be in the disabled group, but are unable to financially sustain themselves or their families otherwise. Individuals may have chronic health problems but not meet eligibility for or have been declined SSI/SSDI, or failed to receive proper screening or treatment while incarcerated (Fremstad & Vallas, 2013; Harner, et al., 2015).

Protective factors not yet discussed included education level and having a sponsor for full-time individuals, and more rural living for part-time and unemployed individuals. Previous research has found urban individuals to be at higher odds of reincarceration than rural individuals (Staton-Tindall, Harp, Winston, Webster, & Pangburn, 2015). Returning citizens living in increasingly rural areas may be more likely to receive resources from dense social networks (Wodahl, 2006) or funds from welfare (Havens et al., 2007) that are more salient when income from employment is not available or substantial.

Examination of protective factors for the full-time employed may help in assisting returning citizens. For example, with increasing education levels full-time employed individuals had a reduced rate to reincarceration. Increasing education levels during incarceration, removing bans on federal funding and scholarships, and allowing education to meet parole/probation criteria would be helpful to all returning citizens. Further, providing employment specific training and education, as well as opportunities to connect with employers while still incarcerated, could significantly impact the costs associated with recidivism through the promotion of job stability.

Additionally, the support of having an AA or NA sponsor offered significant protective effects among full-time employees only. The protective effect could be due to the ability to stay sober given the substance use histories of the current sample, or also be attributed to the social support and subsequent social network changes that have been found in AA/NA sponsorship involvement (Groh, Jason, & Keys, 2008; Tonigan & Rice, 2010). Revealing these unique factors among the full-time employed group is particularly of interest, as often full-time employment is considered as an independent variable. As demonstrated in the Kaplan-Meier curves, the effect of employment is rather apparent on recidivism, but some individuals with jobs are indeed reincarcerated. Understanding the protective and risk factors above and beyond employment allow for further policy changes and advocacy among researchers and criminal justice employees.

Limitations

While significant, the current research is not without limitations. The most pressing limitation is the casual nature of the variables considered. While certain variables are considered temporally through baseline assessment or nature of the question, it is impossible to discern completely the temporal nature of an individual's reentry path such as the relationship between homelessness and unemployment. Studies that include more time points would be beneficial to discern this relationship, especially to assist in better understanding the unemployed group. Several measures relied on individual self-report which may be inaccurate due to recall difficulties or bias, or lack of rapport. The dependent and time variable were gathered through official records and overcomes this issue, however. The current study aimed to add to the scant research addressing disability among offender and reentry populations, but limited information was available about why individuals consider themselves disabled, even if not receiving SSI/SSDI. The type of disability was unknown, and further consideration of the type of disability would yield insights to if, and what type, of criminal offending, is possible among this population. While attempts were made to consider job stability, the study is limited by not having measures to assess job

stability more overtly as well as measures of job quality. These variables should be considered for future research. Finally, while the goal of this paper was to draw attention to the potential nuances of post-release employment, even the current research was limited in the post-release variables available, and further operationalizations of employment should be considered.

Conclusion

The current research advocates for movement beyond an employment dichotomy, as well as clearer conceptualizations of employment in criminological research. While researchers may be limited in their data sources due to the nature of recidivism studies and reliance on government agencies, fully operationalizing measures allows for continued growth of the discipline. The current research is among some of the first to consider disabled returning citizens time in the community but does not suppose that the operationalization of employment by the current four categories is sufficient or all-encompassing, but rather provides insights not previously explored and encourages future research to include thoughtful operationalization of employment. While this research utilized as many employment categories as the data afforded, certainly other data could allow for more to include number of hours worked thus creating a continuum of full-to-part-time unemployment, or further distinctions among an unemployed category. The current research has demonstrated that studies that do not accurately account for disabled individuals may be artificially inflating the success of other employment categories. Additional research should explore the four employment measures utilized here, as well as expand upon if possible, in order to determine if these patterns remain across other states and returning citizen populations. Further, practically no research has examined the unique status of disabled individuals while incarcerated and post-release. While these individuals make up a small portion of the overall offender population, it is critical to better understand this group and provide voice to their needs, concerns, strengths, and resilience. There are certain risk factors that were detrimental to all individuals at reentry (e.g., homelessness), regardless as to their employment status, further adding to the literature and applied work that reentry is a vulnerable time. Consideration of the risk and protective factors by the four employment statuses considered here demonstrates that even once employment (or disability) is established, there are unique needs that should be addressed in order to help individuals remain in the community.

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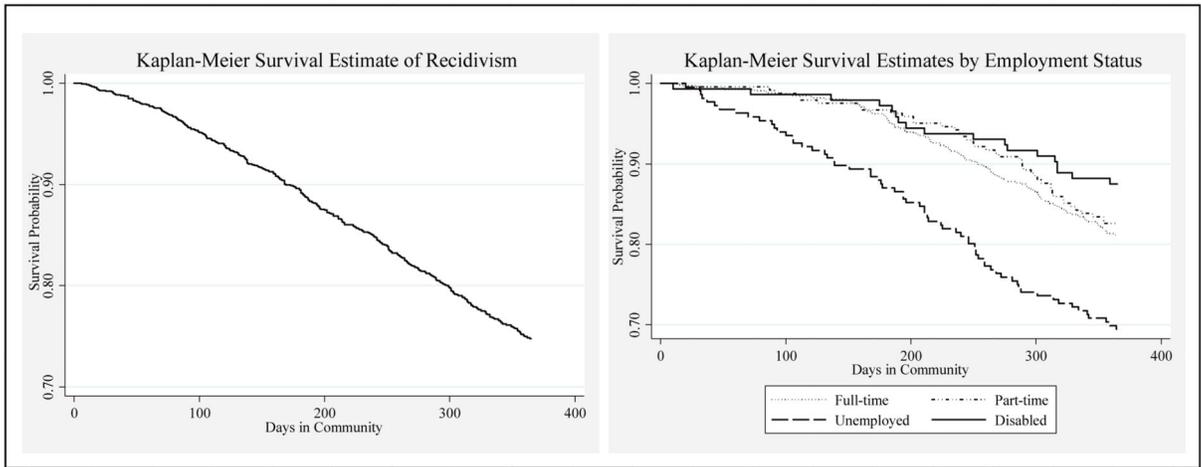


Figure 1.
Kaplan-Meier Survival Estimates for Total Sample and by Employment Status

Table 1.

Descriptive Statistics of Relevant Independent Variables

	Total Sample N=1,272 Mean (SD)/ Percent (%)	Full- Time N=602	Part-Time N=222	Unemployed N=315	Disabled N=133
Independent Variables					
Age	34.11 (9.15)	32.91 ^{***} (8.27)	34.32 (9.34)	32.49 ^{**} (8.58)	42.98 ^{***} (9.03)
Education level	11.77 (2.12)	11.97 ^{***} (1.96)	11.64 (2.33)	11.57 (2.08)	11.51 [*] (2.42)
Employment Status (%)					
<i>Full-time</i>	47.33				
<i>Part-time</i>	17.45				
<i>Unemployed</i>	24.76				
<i>Disabled</i>	10.46				
Gender (Males) (%)	79.25	84.05 ^{***}	77.03	72.06 ^{***}	78.20
White (%)	78.62	80.23	71.62 ^{**}	78.41	83.46
Single (%)	46.31	47.34	47.75	53.97 ^{***}	21.05 ^{***}
Homeless (%)	11.79	4.32 ^{***}	3.15 ^{***}	35.87 ^{***}	3.01 ^{***}
Alcohol relapse in prior 12 months (%)	16.82	13.62 ^{***}	23.87 ^{***}	20.00	12.03
Drug Relapse in prior 12 months (%)	30.35	26.58 ^{***}	33.33	43.49 ^{***}	11.28 ^{***}
Sponsor (%)	30.35	33.55 [*]	29.28	23.49 ^{***}	33.83
Urban-Rural Scheme	3.89 (1.84)	3.81 (1.84)	3.83 (1.89)	3.84 (1.86)	4.50 ^{***} (1.65)
ER Visits	0.81 (1.42)	0.68 ^{**} (1.11)	0.79 (1.39)	0.68 (1.36)	1.68 ^{***} (2.29)
Outpatient Visits	6.23 (15.52)	5.93 (16.21)	6.03 (15.61)	5.18 (14.17)	10.43 ^{***} (14.68)
Chronic Pain (%)	35.53	29.73 ^{***}	33.78	32.06	72.93 ^{***}
Years Incarcerated	2.09 (2.00)	2.14 (2.21)	2.13 (1.85)	1.96 (1.38)	2.11 (2.46)
Prior Employment (%)	62.97	75.08 ^{***}	64.86	53.97 ^{***}	26.32 ^{***}
Sample Site Control (%)					
<i>Prison</i>	40.17	39.37	38.74	40.00	46.62
<i>Jail</i>	46.86	47.67	50.00	48.25	34.59 ^{**}
<i>Community Corrections</i>	19.34	12.96	11.26	11.75	18.80 [*]
Employed Only (full or part-time)					
Weeks Out	4.89 (6.70)	4.31 ^{***} (5.79)	6.45 ^{***} (8.52)		
Number of jobs in prior year	1.83 (1.05)	1.79 ^{***} (1.02)	1.95 ^{***} (1.12)		

* T-test and chi-square significance at p<.05

** p<.01

p<.001

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Table 2.

Time Remaining in the Community by Post-Release Employment Status

	Total N=1,272	Full Time N=602	Part Time N=222	Unemployed N=315	Disabled N=133
\bar{x} days in community	321.51	340.14	343.21	260.09	346.45
ANOVA Post-Hoc Contrasts		*** from unemployed	*** from unemployed		*** from unemployed
% Remaining in Community after 1 year	74.76 N=1042	81.17 N=539	82.61 N=199	51.59 N=178	87.50 N=126

* indicates significance at $p < .05$

** $p < .01$

*** $p < .001$

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Table 3:

Cox proportional hazard model predicting recidivism; N=1,272

	Model 1 Hazard Ratio (Standard Error)	Model 2¹ Hazard Ratio (Standard Error)	Model 3 Hazard Ratio (Standard Error)
Age	0.98* (0.01)	0.99 (0.01)	1.00 (0.01)
White	1.42* (0.21)	1.22 (0.18)	1.23 (0.18)
Male	1.22 (0.18)	1.24 (0.19)	1.35 (0.21)
Urban-Rural Scheme	0.88*** (0.03)	0.91** (0.02)	0.91*** (0.03)
Education Level	0.94* (0.02)	0.97 (0.02)	0.98 (0.03)
Single	1.33* (0.17)	1.15 (0.15)	1.17 (0.15)
Homeless		7.98*** (0.99)	5.94*** (0.83)
Substance Relapse		2.29*** (0.29)	2.18*** (0.28)
Alcohol Relapse		1.25 (0.17)	1.29 (0.18)
ER visits		0.90 (0.05)	0.91 (0.05)
Outpatient Visits		1.00 (0.00)	1.00 (0.00)
Chronic Pain		0.98 (0.13)	1.00 (0.13)
AA/NA Sponsor		0.62*** (0.09)	0.65** (0.09)
Years Incarcerated		1.02 (0.03)	1.02 (0.03)
Employment Status ²			
<i>Part-time</i>			0.79 (0.15)
<i>Unemployed</i>			2.27*** (0.47)
<i>Disabled</i>			1.11 (0.36)
Prior Employment			1.01 (0.12)
Weeks out until Job			1.01 (0.00)
Number of jobs in prior year			1.20** (0.08)
LR Chi-square	51.36***	397.51***	429.15***

* indicates significance at p<.05

** p<.01

*** p<.001

¹ Prison, Jail, and Community Correction Sample recruitments included as controls beginning in model 2

² full-time employment is reference group

Table 4.

Cox proportional hazard model predicting recidivism by employment category

	Model 4		Model 5		Model 6		Model 7	
	Hazard Ratio	Standard Error						
Age	1.01	0.01	0.97	0.02	0.99	0.01	0.99	0.03
White	1.97*	0.60	2.05	0.96	0.77	0.17	1.34	1.03
Male	1.13	0.35	1.13	0.58	1.07	0.23	4.86	5.25
Urban-Rural Scheme	0.95	0.05	0.79*	0.08	0.90*	0.04	0.76	0.15
Education Level	0.88**	0.04	1.01	0.08	0.96	0.04	1.11	0.14
Single	1.28	0.27	1.23	0.50	1.28	0.25	0.38	0.26
Homeless	5.76***	1.73	7.38**	4.73	5.50***	1.02	1.79	2.10
Substance Use Relapse	4.19***	0.86	1.71	0.69	1.38	0.25	2.72	1.83
Alcohol Use Relapse	1.15	0.28	1.73	0.73	1.18	0.25	3.68	2.68
ER Visits	0.93	0.09	0.94	0.13	0.92	0.08	0.90	0.17
Outpatient Visits	1.01	0.01	1.02*	0.01	0.99	0.01	0.86*	0.06
Chronic Pain	0.76	0.16	1.08	0.42	1.15	0.23	0.56	0.31
AA or NA Sponsor	0.63*	0.14	0.45	0.22	0.77	0.18	1.32	0.78
Years Incarcerated	0.98	0.05	1.13	0.09	1.01	0.06	1.00	0.12
Prior Employment	1.17	0.29	0.65	0.22	0.92	0.16	0.40	0.36
Weeks Out Until Job	0.93**	0.03	1.00	0.02				
Number of Jobs	1.35***	0.12	1.05	0.15				
LR Chi-Square	132.21***		41.48**		157.27***		34.91**	
N	602		222		315		133	

* p<0.05

**

p<0.01

p<0.001

Prison, Jail, and Community Correction Sample recruitments included as controls