

Reentry and the Ties that Bind: An Examination of Social Ties, Employment, and Recidivism

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Scholars consistently find that reentering offenders who obtain steady work and maintain social ties to family are less likely to recidivate. Some theorize that familial ties may operate through employment to influence recidivism and that such ties may also serve a moderating role. The current study employs an integrated conceptual framework in order to test hypotheses about the link between familial ties, post-release employment, and recidivism. The findings suggest that family ties have implications for both recidivism and job attainment. In fact, the results suggest that good quality social ties may be particularly important for men with histories of frequent unemployment. The implications of these findings are discussed with regard to theory and future research on prisoner reentry and recidivism.

Keywords prisoner reentry; recidivism; social ties

Introduction

A massive growth in the USA prison population has stimulated scientific interest in prisoner reentry. According to recent estimates, more than 1.5 million people are currently under the jurisdiction of state and federal prisons (West & Sabol, 2009). Approximately two-thirds of returning offenders renew their involvement

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in criminal behavior, and nearly half will serve another sentence in prison (Langan & Levin, 2002). In light of these facts, social scientists have increasingly focused their efforts on explaining the etiology of recidivism and desistance among offenders making the transition from prison to the community. Studies consistently find that two conditions play a particularly salient role in the reentry process: employment and social ties to family (Glaser, 1964; Laub & Sampson, 2003; Petersilia, 2003; Visher & Travis, 2003). Evidence derived from a variety of data sources shows that offenders who maintain a steady job and have close ties with members of their family are less likely to renew their involvement in criminal behavior upon release from prison. While this evidence is fairly clear, the manner by which familial ties affect recidivism has been relatively unexamined. Taken together, the literature suggests that good quality social ties with family lower the risk for recidivism, in part, by facilitating job attainment (Glaser, 1964; Visher, Debus, & Yahner, 2008). In other words, by connecting offenders with stable employment familial social ties may play an *indirect* role in affecting recidivism.

Extant research shows that the social capital obtained through relational ties is of "paramount importance in connecting people with jobs" (Granovetter, 1974, p. 22). This capital is especially beneficial for job-seekers who are at a relative disadvantage in terms of their marketable qualifications (i.e., work history, education) and reputations (Granovetter, 1974, 1985; Lin, 2001). Most offenders leaving prison lack a competitive resume, they are under-skilled relative to the general population, plus they shoulder a debilitating stigma that is attached to their criminal history (Pager, 2003). Owing to these deficits, parolees face significant challenges finding work (Petersilia, 2003). Some, however, rely on family members to procure job arrangements, and it is through this mechanism of job attainment that family ties are thought to be instrumental in altering post-release behavior (see Glaser, 1964). Despite important advances in knowledge about reentry, criminologists have yet to isolate, "how exactly social ties aid released inmates in the transition back into society" (Bales & Mears, 2008, p. 313); in particular, little is known about whether family ties help offenders overcome obstacles in the job market and secure employment (cf. Visher & Travis, 2003). Empirical knowledge of these proposed associations will serve as an additional step toward a more complete understanding of recidivism and prisoner reentry.

The current study builds upon existing reentry research by investigating two questions regarding the association between family-based social ties, job attainment and recidivism. First, we examine whether employment is a conduit through which familial social ties influence recidivism. Second, we examine whether familial ties buffer the effects of deficits in employment qualifications on job attainment. This analysis uses data that include both pre- and post-release factors; the study sample comprises a group of men whose involvement in criminal behavior was tracked for more than three years following parole. Results are discussed with regard to criminological theory, future research on recidivism, and prisoner reentry policy.

Background

Family Ties and Returning Offenders

A large body of social science research has shown that during personal crises (e.g., divorce, death, and serious health complications) family members are fertile sources of psychological, material, and financial support (Cattell, 2001; Umberson, 1987; Wellman & Wortley, 1990). In fact, criminological research finds that upon release from prison, offenders commonly rely on parents, grandparents, siblings, aunts, and uncles. Family members come to represent core members of offenders' social networks (Malik-Kane & Visser, 2008; Shapiro & Schwartz, 2001). For example, approximately 40% of offenders in a Baltimore release cohort expected to rely on family as a source of support in the post-prison environment and, in fact, almost 50% ultimately did (Visser, Kachnowski, La Vigne, & Travis, 2004). Nelson, Dees, and Allen (1999) reported that approximately 80% of the parolees in their study resided with family members upon release from prison. Meisenhelder (1977, pp. 328-329) found in his study that family was a major source of relational attachments for offenders and became "a secure place for [them] within the conventional community." Likewise, several other qualitative studies have observed that family serves an important role in the post-release environment, namely as a resourceful network of support (Braman, 2004; Farrall, 2004; Glaser, 1964; Shover, 1996).

It is believed that, relative to the wider community, the family is more apt to overlook offenders' stigma—a phenomenon that facilitates the formation of social ties between offenders and members of their family (Eckland-Olson, Supancic, Campbell, & Lenihan, 1983). A record of imprisonment can lead to gross exclusion (Matza, 1969, pp. 159-162) from conventional social networks in one's community, particularly when those networks comprise individuals who have little prior information to construct an image of the offender's self other than what is known based on their criminal record (Ericson, 1977; Lofland, 1969). By contrast, family members are unlikely to consider the offenders' arrest record as representative of their real self (Maruna, 2001), rather they recognize it as a *part* of the offenders' total personality. Therefore, reentering offenders' past transgressions have a less corrosive effect on tie formation with members of their own family versus members of the wider community (Braithwaite, 1989; Lofland, 1969, p. 214). In fact, a considerable amount of research by Sampson and Laub (1993) stresses this notion, suggesting that a reason the relational tie between offenders and spouses is unique and potentially beneficial—in terms of desistance—is that it is unencumbered by the stigma associated with a lengthy record of offending. In view of the criminological literature, Farrall (2004, p. 72) concludes that "the family has appeared to be a particularly strong resource for those attempting to desist to call upon."

Family Ties and Recidivism

Existing theoretical and empirical research implies that social ties to family involve *three* components that purportedly affect their involvement in criminal behavior. First, ties have a controlling effect on returning offenders' behavior; second, they provide a provision of emotional support; and third, they facilitate identity transformation. We review these ideas in the forthcoming paragraphs.

Turning to the first of these components, the effect of social ties on offending is often understood through the lens of control theory. Social control models assume that people's motivation to offend is restrained by their relations to society, conceived of as social bonds (Hirschi, 1969). Variability in the strength of the social bond accounts for variation in offending. Family ties represent a source of social control in that they connect reentering offenders to the conventional social order and in doing so thwart their impulses to recidivate (Laub & Sampson, 2003). In the words of Glaser (1964, p. 335), these ties are "insulation from the criminal influences" that reentering offenders encounter in free society. For instance, family ties structure offenders' daily routines, placing restrictions on where they go to socialize, with whom they associate, and the types of behaviors they engage in while socializing (i.e., heavy drinking, partying in bars and clubs, and drug use) (see Warr, 1998).

Second, existing research suggests that intimate ties supply returning offenders with a provision of emotional support. This support reduces the impulse to offend in several ways. First, families provide offenders with emotional resources to cope with the stressful challenges of reentry (Agnew, 2005; Glaser, 1964). In fact, Maruna (2001) as well as Laub and Sampson (2003) offer recent empirical evidence to suggest that offenders' families provide a durable emotional barrier which shields them from the disorienting experiences common to reentry. Elsewhere, theorists claim that familial ties serve as the basis of the shaming process, and family members take on a nurturing role in the process of social reintegration (Braithwaite, 1989). Empirical research with parolees has supported the purported centrality of familial support (Naser & Visher, 2006; Sullivan, Mino, & Nelson, 2002). For example, interviewed roughly three months after their release date, a sample of ex-prisoners from Ohio identified support from the family as the most important thing that kept them from returning to prison (Visher & Courtney, 2006, p. 2). Other studies find that ex-prisoners with close ties to their family report higher levels of optimism, confidence in the future, and an unwillingness to commit to criminal behavior (Burnett, 2004; Maruna, 2001; Nelson, Dees, & Allen, 1999). For example, a number of the men in Laub and Sampson's (2003) research asserted that the emotional support offered by members of their family, including spouses, children, and in-laws, was fundamental to their eventual success at desistance. Noting this finding, Laub and Sampson (2003, p. 137) remarked, "for some men [those who had desisted], a wife was one of the first people to care for them and about them."

Third, a growing research literature indicates that family relationships are fundamental components in the process of cognitive change. Specifically, theory

argues that the process of cognitive transformation is coupled with the formation of relational ties; these ties act as an anchor, enabling offenders to construct an alternative identity (Finestone, 1967). Giordano, Cernkovich, and Rudolph (2002) describe, for instance, how social ties within intimate networks are representative of a structural contingency or a hook for change. According to their research, these hooks are requisite to the development of a replacement self that is fundamentally incompatible with continued offending. Interpersonal ties with conventional actors serve to reaffirm the legitimacy of ex-prisoners' conventional orientation by providing testimony to the authenticity of their reform (Maruna, 2001, p. 157; Shover, 1996). In this way, participation in the roles inhered in family ties reinforces ex-prisoners' perception of themselves as a contributing member of society, and at the same time it galvanizes their commitment to conformity (Braithwaite, 1989; Maruna & Toch, 2005).

Family Ties and Employment

Another emerging perspective in the literature implies that beyond supplying social control, social support, and the impetus for identity transformation, familial ties also serve an instrumental function in the post-release environment—namely, they act as a bridge to the job market (Glaser, 1964). Familial ties are said to contain a cache of social capital, which is conceived of as a relational investment inhered in the structure of the social network (Furstenberg, 2005; Portes, 1998). When acted upon, the stock of capital within the familial network assists offenders in attaining various symbolic and material resources in the post-release setting, including a steady job.

Specifically, theory suggests that social capital promotes the likelihood of job attainment in four distinct ways. First, according to Lin (2001) "information flow" is facilitated by social capital. For example, offenders with imperfect knowledge of job markets learn of positions and opportunities in the marketplace from members of their family. In fact, Granovetter (1974, p. 11) discovered in his study of capital and job acquisition that personal contact was the predominant method of finding a job. Second, social capital has an "influence" on individuals who have the authority to make key decisions within organizations (Lin, 2001). For example, employers may be swayed to hire an applicant, despite their criminal record, based on inside knowledge about the applicant's character that the employer gleaned from their family. Third, an individual's ties to a given social network are viewed by others as "certification" of the person's ability to access valued resources (Lin, 2001). In this way, deficits in ex-prisoners' personal qualifications or reputation might be outweighed by their potential to secure material assets from the familial network in which they are embedded. Finally, in Lin's (2001, p. 20) words, social ties "reinforce identity and recognition." Knowing that an ex-prisoner has social standing in a group serves to enhance perceptions of their reputation in the eyes of others. Empirical evidence shows, for example, that certain ex-prisoners are granted jobs

because their family has a respectable degree of status in the community (Sullivan, 1989).

In short, the social capital embedded within familial ties connects offenders to jobs by facilitating information flow, influencing decision makers, certifying one's qualifications, and affecting one's reputation. This is not to say that employment history and education (i.e., credentials) are irrelevant assets in the job marketplace. Indeed, within certain sectors, such as technology, these credentials are perhaps fully adequate (cf. Granovetter, 1974). But empirical evidence generally shows that formal credentials are often "insufficient to convey the social skills and resources so essential" (Lin, 2001) for the acquisition of a job. Given that ex-prisoners are often severely disadvantaged in terms of their credentials upon release, including their reputations, then social networks are especially relevant to their ability to secure a steady job (Braman, 2004; Petersilia, 2003; see also Uggen, Wakefield, & Western, 2005).

Employment and Criminal Offending

Research conducted on high-risk samples often finds a negative link between employment and criminal behavior (see Laub & Sampson, 2003; cf. Uggen et al., 2005). For example, Laub and Sampson (2003) analyzed longitudinal data on 500 men and found that during periods of employment they were less likely to commit predatory crime and engage in heavy alcohol use. Similarly, using retrospective data gathered from Nebraska inmates, Horney, Osgood, and Marshall (1995) found that the probability of committing property offenses was reduced in the months when sample members were employed. Uggen's (1999) analysis of the National Supported Works Demonstration Project data indicates that jobs of high quality diminished the likelihood of recidivism among released offenders, even after controlling for selection into employment. Theory stresses that a steady job gives offenders a sense of identity and meaning to their life, while it also places restrictions on their routines, thereby reducing their exposure to situations conducive to criminal behavior (Glaser, 1964; Laub & Sampson, 2003; see also Sullivan, 1989). Employment, however, also enables individuals to pay their bills, secure housing, and develop a wider network of ties to conventional society (Petersilia, 2003; Visher & Courtney, 2006; Visher & Travis, 2003). Plus, employment reduces the economic incentive to engage in income-generating crimes (Petersilia & Rosenfeld, 2008; Shover, 1996). Others note that role commitments associated with employment also reduce offending by virtue of the fact that such behavior is inconsistent with the role and might jeopardize it altogether (Matsueda & Heimer, 1997; Sampson & Laub, 1993).

Reentry and Job Attainment

By several accounts, obtaining steady employment in the post-prison context is a difficult task for reentering offenders, a task that is encumbered by two major

challenges (see Bushway, Stoll, & Weiman, 2007; Holzer, Raphael, & Stoll, 2001). First, the stigma of criminal conviction makes reentering offenders unattractive job candidates. For example, an audit study found that employers were unwilling to hire those with a reported criminal record even when they exceeded the qualifications for the position (Pager, 2003). Also, nearly 60% of employers surveyed in four large US cities reported that they would "definitely not" or "probably not" hire an ex-prisoner (Holzer, 1996). A mixed-method study of 740 men released from prison showed that that within two months after their parole date nearly 80% spent time searching for a job. However, most of the men reported difficulty during the search because of their criminal record (Visser et al., 2008). Once in the community, not only are many employers reluctant to hire convicted felons, but many former prisoners are legally barred from certain occupations (Petersilia, 2003). By virtue of their record, offenders face an especially narrow range of job opportunities.

Second, many offenders lack much-needed work skills, educational qualifications, and a stable history of employment. For instance, recent estimates show that roughly one-third of 25-34-year-old male inmates in state prisons held a high school diploma compared to 90% of males of the same age in the general population (Uggen et al., 2005). Whereas roughly 80% of 25-34-year-old non-imprisoned males were employed full-time, only 55% of inmates in the same demographic group reported being employed at the time of their most recent arrest. Additionally, Rubenstein (2001) estimates that 40% of adult state prisoners are functionally illiterate compared to 21% of non-incarcerated adults (cf. Petersilia, 2003). A history of irregular work and inadequate qualifications signals to potential employers that applicants are relatively poor candidates for an open position. Some scholars speculate that spending time in prison may further erode existing job skills and embed offenders into criminal networks as behaviors that are adaptive to prison life and street offending may be detrimental to working a job (Maruna & Toch, 2005; Uggen et al., 2005).

However, consistent with social capital theory, a small body of empirical research suggests that familial ties are an important mechanism by which ex-prisoners secure a job and overcome the hurdles of stigma and insufficient qualifications. Glaser (1964) observed that parolees frequently relied on personal contacts with family members for job procurement. A more recent study by Visser et al. (2008) noted that most offenders found work through personal connections including relatives (see also Visser et al., 2004). Similarly, research by Farrall (2004) found some evidence showing that offenders' parents offered them jobs—if the parents were self-employed—or found employment for them via personal contacts. In sum, existing evidence implies that an important way by which familial ties influence recidivism is through employment, and an important way by which offenders find a job is through familial ties. However, given the paucity of multivariate research along these lines, additional systematic evidence is needed to verify the validity of these claims.

Current Study

In short, offenders often rely on social ties upon release from prison, and extant research suggests that family ties may have a more proximate influence on recidivism through the supply of social control, support, and the momentum for cognitive change that they provide. However, these ties might also reduce recidivism indirectly through the acquisition of a steady job. Stated otherwise, employment is perhaps an important mechanism through which familial ties influence offending in the post-release environment. Although these causal relationships have been implied in the literature, relatively little empirical research has been conducted in this area. In fact, Visser and Travis (2003, p. 99) fault researchers for focusing on the "single outcome of recidivism rather than attempting to understand the complicated process through which family may affect reintegration." The overarching goal of this study is to make progress toward filling in this knowledge gap; we draw on the literature outlined in the foregoing paragraphs to delineate three hypotheses regarding the relationship between interpersonal ties to family, employment, and recidivism.

Hypothesis 1: Good quality familial ties have a direct negative effect on recidivism.

Hypothesis 2: A significant quantity of the negative relationship between familial ties and recidivism is indirect and mediated by the effect of employment.

Social capital theory predicts that social ties are instrumental in securing access to jobs, if this notion is valid then the direct effect of social ties on recidivism should be significantly reduced once we control for post-release employment.

Hypothesis 3: (a) Offenders who lack a high school diploma and who have an insufficient work history will be less likely to acquire employment upon release; (b) moreover, familial ties will moderate the negative effects of deficits in both education and work history on post-prison employment.

Here we predict a negative relationship between deficits in personal capital (i.e., work history and education) and post-release employment, and we also expect that this relationship will be weaker for those with good quality social ties.

Data and Methods

The dataset for the current study comprises a random sample of 401 males paroled from prisons in a single Midwestern state in 2000. Information on whether they were arrested following their parole date was gathered through

October 2004.¹ The data were culled from official agency records. We obtained information on offenders' pre-prison demographic characteristics, officially recorded criminal history records, and post-release arrests from department of corrections databases. Data on post-prison social conditions and pre-prison employment and substance abuse history were obtained from the Level of Service Inventory-Revised (LSI-R). Following state DOC guidelines, the LSI-R assessment was administered by parole officers to members of the sample in a semi-structured interview within approximately two weeks of when they were discharged from prison, during their initial parole meeting.

More specifically, the LSI-R is a widely used 54-item risk assessment instrument administered in a structured interview used to plot probationers and parolees risk for reoffending and measure their progress while under supervision; it captures pre- and post-prison static and dynamic factors known to closely correlate with offending (see Andrews & Bonta, 2006). The LSI-R is appropriate for a study of this type. Several studies show that the LSI-R has predictive validity (Vose, Cullen, & Smith, 2008), high test-retest reliability (see Andrews & Bonta, 2006). The LSI-R is widely used by correctional officials in North America who currently adopt the instrument as part of offender management protocols (see Petersilia, 2003; Smith, Cullen, & Latessa, 2009).²

Our purpose is not to conduct an evaluation of the LSI-R's predictive validity, but to draw upon the rich array of information the instrument offers on an item-by-item basis for the purpose of testing the current hypotheses. In the paragraphs that follow the study measures are described, followed by a presentation of descriptive statistics and the results of the multivariate analyses.³

Dependent Variables

The goal of this analysis is to explore the role of post-prison social ties in predicting parolee recidivism and employment. Hence, we use two separate dependent variables in the analyses. Consistent with extant research, we operationalize *recidivism* as offenders' first arrest following release from prison. Data on time to failure were also collected and reflect the number of days until rearrest. In

1. Using an electronic sorting process, staff from the state department of corrections (DOC) placed all parolees released in 2000 into a single electronic file and randomly selected every fifth parolee from the total parole file until a sample of 570 offenders was compiled (401 males; 169 females). We focus here on the 401 males in the sample. Random sampling was used to reduce the costs to the department of corrections associated with data collection. The sample is reflective of the population of parolees from the state in 2000. Further details on the study state are available from the authors by request.

2. The efficacy of the LSI-R has been well documented (Gendreau, Little, & Goggin, 1996; Petersilia, 2003); however, it is important to note that there is an ongoing debate surrounding the utility of this instrument for women (see Holtfreter, Reisig, & Morash, 2004; Smith et al., 2009). DOC officials from the state in which the data originates conduct annual assessments to determine the internal reliability of LSI-R; this is done using a test-retest method. The assessment conducted during the time frame in which these datasets were collected showed high test-retest reliability from 2001 through 2004.

3. Due to confidentiality reasons and bureaucratic oversight we were not allowed to access answers to the open-ended questions from the LSI-R interview.

total, 66% of the sample were rearrested during the 46-month follow-up period, and parolees averaged 619 days ($SD = 389$) in the community before recidivating (see Table 1).

In addition, we include a measure of *post-release employment* that was gathered by the department of corrections and reported on the LSI-R assessment—this measure reflects employment status during the release period (1 = full-time work—30+ hours per week, 0 = part-time, sporadic employment or unemployed). Offenders who reported acquiring full-time work (30 or more hours of paid employment per week) were asked to provide parole officials with their employers' contact information, and this information was used to verify the offender's employment status. In total, 46% of the sample were employed during the release period. Post-release employment was assessed within approximately four weeks of parolees' intake date and was not recorded during their initial meeting with their parole officer. Thus, information from the intake interview—which occurred in the first two weeks of parolees' release from prison, as noted earlier—was updated to include offenders' post-release employment status. Employment information was not gathered during the first meeting by parole officers since offenders had not had the occasion to investigate opportunities in the local job marketplace, owing to the fact that they were only recently incarcerated.⁴ The rate of employment at the four-week time-point (46%, see Table 1) in the current study sample is similar to statistics reported elsewhere using a similar window of time. For example, in the study by Visher et al. (2008), by two months after release nearly 43% of offenders were employed.

Independent Variables

Familial social ties are measured using two distinct constructs derived from the LSI-R. The first gauges the quality of offenders' ties to their parents and the second measures the quality of relationships with non-parental relatives. *Parental ties* is a dichotomous measure (1 = reflects a relatively satisfactory or satisfactory relationship; 0 = reflects an unsatisfactory, or relatively unsatisfactory, or non-existent relationship with parents).⁵ Similarly, the *ties to relatives* measure includes relationships with siblings, grandparents, cousins, and aunts

4. Parole officials reported to the authors that some reentering offenders learned of job opportunities while they were incarcerated, often through family connections. And therefore some were able to make a transition immediately into employment upon release (for similar see Nelson et al., 1999).

5. The measures of ties to relatives and parental ties were originally scored on an ordinal scale (see Appendix 1). We recoded both the relative and parental ties variables into binary measures because both of the variables (i.e., ties to relatives and ties to parents) were sharply skewed. For the parental ties construct, five offenders received a score of (3), and nine offenders received a score of (0). In terms of familial ties, six offenders received a score of (3) and eight a score of (0). To generate reliable estimates unaffected by rare and extreme scores, we recoded the two family ties variables into dichotomous measures, with scores of 0 and 1 recoded as (0) and scores of 2 and 3 recoded as (1).

Table 1 Summary statistics and descriptive narratives for study variables

Variable	Mean	SD	Description
<i>Dependent variables</i>			
Recidivism	66%		Occurrence and timing of the first post-release arrest during the 46-month follow-up period
Post-release employment	46%		1 = parolee is employed for 30+ hours per week; 0 = offender works less than 30 hours per week, have sporadic work histories, are in a temporary position, or employment cannot be verified
<i>Independent variables</i>			
<i>Pre-prison characteristics</i>			
Prior arrests	9.14	8.57	Number of prior arrests
Release age	31.81	8.71	Age in years at release from prison
Non-White	28%		1 = African-American, Hispanic, or Native American; 0 = White
No high school education	67%		1 = offender had not completed high school or obtained a GED; 0 = respondent has completed high school
Alcohol abuse history	73%		1 = respondent drank alcohol more than three times per week, reported passing out or blacking out, substance use affected other life domains (work, education, intimate relations, family), or they had contacts with medical facilities for treatment and dependence; 0 = offender did not report these behaviors prior to imprisonment
Drug abuse history	68%		1 = offender used drugs more than three times per week, reported passing out or blacking out, substance use affected other life domains, or they had contacts with medical facilities for treatment and dependence.; 0 = responded did not report prior drug use.
Frequently unemployed	60%		1 = offender worked less than 50% of the time in the 12 months prior to their incarceration or if they had numerous job changes annually in their lives; 0 = parolee worked more than 50% time and maintained job stability over time
Property conviction	46%		1 = served time in prison for larceny, theft, burglary, fraud; 0 = drug-related or other crime
Violent conviction	14%		1 = served time in prison for rape, robbery, homicide, felonious assault, arson; 0 = drug-related or other crime
<i>Post-prison conditions</i>			

Table 1 (Continued)

Variable	Mean	SD	Description
Stable living arrangements	1.18	.76	Ordinal measure ranging from 0 to 3; 0 = a very unsatisfactory situation with a very clear and strong need for improvement, 1 = a relatively satisfactory situation with a need for improvement, 2 = a relatively satisfactory situation with some need for improvement evident, 3 = a relatively satisfactory situation with no need for improvement
Antisocial attitudes	1.22	.77	Ordinal measure ranging from 0 to 3; 0 = a relatively satisfactory situation with no need for improvement, 1 = a relatively satisfactory situation with some need for improvement, 2 = a relatively satisfactory situation with a need for improvement, 3 = a very unsatisfactory situation with a very clear and strong need for improvement
Mental health problems	.49	.62	Ordinal measure ranging from 0 to 2; (0) = no interference, (1) = mild interference, (2) = severe interference, active psychosis
Parental ties	44%		1 = relationship with parents is relatively or very satisfactory; 0 = relationship is relatively unsatisfactory or very unsatisfactory, or non-existent
Ties to relatives	46%		1 = relationship with aunts, uncles, cousins, or siblings is relatively satisfactory or very satisfactory; 0 = relationships are relatively unsatisfactory or very unsatisfactory, or nonexistent
Intimate partner relationship	1.44	.77	0 = relationship is very unsatisfactory 1 = relatively unsatisfactory situation, 2 = relatively satisfactory situation, 3 = refers to a very satisfactory relationship

and uncles⁶ (1 = reflects a relatively satisfactory to absolutely satisfactory relationship; 0 = reflects a relatively unsatisfactory, unsatisfactory, or non-existent familial relationship).⁷ In total, 44% of the sample had positive ties with relatives, and 46% reported strong relationships with parents. Additional information on the coding of the family ties variables is given in Appendix 1.

In addition, we include a measure designed to capture the quality of an offender's *intimate partner relationships*; this measure refers to marriage as well as intimate relationships not bonded by marriage. Scores range from 0 through 3 (0 = very unsatisfactory with a very clear and strong need for improvement, 1 = relatively unsatisfactory situation with a need for improvement, 2 = satisfactory situation with some need for improvement, and 3 = refers to a satisfactory situation with no need for improvement). For more information on the variable coding scheme, please see Appendix 1.

We included two measures meant to capture the extent of offenders' employment qualifications or credentials. The measure of *work history* reflects whether respondents were frequently unemployed prior to incarceration (1 = offender worked less than 50% of the time in the 12 months prior to their incarceration or if they had numerous job changes annually in the years preceding their incarceration; 0 = parolee worked more than 50% time and maintained job stability). A history of frequent unemployment signals to employers that potential employees are unlikely to commit themselves to working at a job for a significant period of time (Granovetter, 1974). Similarly, education is a gateway to employment opportunities, and achievement in school can be viewed by employers as a proxy for effort and ambition (see Rosenbaum, Kariya, Settersten, & Maier, 1990; Thurow, 1975). Therefore, we also included a measure of whether offenders had not completed high school, deemed *high school education* (1 = did not complete high school; 0 = completed high school or obtained a GED). In terms of personal characteristics, 67% of offenders lacked a high school education and 60% reported a history of frequent unemployment.

Measures of past criminal behavior are critical to capturing long-term involvement in the criminal justice system (DeLisi, 2005). Three variables capture offenders' criminal history. The first of these, *prior arrests*, is a continuous measure reflecting the total number of times offenders were arrested prior

6. The LSI-R scoring guide states that corrections officers should "Look for one solid relationship (if the offender has regular contact with 1 out of 5 siblings and that 1 sibling is a good, pro-social support for the offender, then you may score that 1 positive person)." Also, corrections officers are urged to "look at the density of the relationship (with who does the offender have the most contact)." The parental ties measures are to be scored using a similar logic of that used to score the parental measures (see Note 4).

7. We re-estimated all analyses with the two family ties variables (i.e., ties to parents and ties to relatives) in their original four-score ordinal metric (0) to (3) and the results were virtually the same as those reported here (available upon request). However, it is important to note that we found that the overall model fit was more robust with the dichotomized measures relative to the model that employed the ordinal versions of the family ties measures. In fact, we found that the models showed a moderate level of improvement in structural fit with the implementation of the dichotomized measures. Based on this evidence, we have greater confidence in the reliability and validity of the estimates generated with the dichotomized measures versus those from the ordinal metric.

to their current prison term. In addition, we included two variables indexing the nature of the offense for which the sample member was incarcerated, including *violent offense* (1 = rape, robbery, homicide, felonious assault, arson), *property offense* (1 = larceny, theft, burglary, fraud). *Drug offenses* serve as the reference category. Respondents averaged 9.14 prior arrests and 46% were serving time for a property offense and 14% for a violent crime.

Finally, we employ four broad clusters of control variables in the analyses to safeguard against omitted variable bias, all of which were measured at the initial parole interview, including demographic characteristics, pre-prison substance use, criminal history, mental health, and post-release factors. With regard to demographic characteristics, we incorporate a measure of *race* that is scored as a dichotomous variable (non-White = 1),⁸ and a continuous indicator of offenders' *age at release* in years ($x = 31.81$, $SD = 8.71$). Two measures of pre-prison substance use are included, both of which are derived from the LSI-R. The dichotomous measures, *alcohol abuse history* and *drug abuse history*, assess whether an offender ever had a drug or alcohol problem. We coded the items based on the criterion for substance abuse history spelled out in LSI-R scoring guide, individuals are coded (1) if, prior to prison, they drank alcohol (or used drugs) more than three times per week and reported passing out, blacking out or substance use affected other life domains (work, education, intimate relations, family), or they had contacts with medical facilities for treatment and dependence. Offenders who did not report substance abuse were the reference category and coded as (0). Overall, 73% of the sample indicated prior alcohol use and 68% had a drug abuse history.

Next, we incorporate a measure of *mental health problems* which is an ordinal variable scored from 0 through 2 ($x = .49$, $SD = .62$) gathered from the LSI-R.⁹ We collapsed LSI-R questions 46 and 47—two dichotomous indicators of mild and severe mental issues, respectively—to create a single item. Parolees who report or convey no problems receive a score of 0, those with mild mental health interference receive a score of 1, and with severe interference or active psychosis a score of 2. Next, we also include an ordinal variable from the LSI-R capturing whether residents have secured *stable living arrangements* ($x = 1.18$, $SD = .76$). This factor is said to play an important role in successful reentry outcomes (Petersilia, 2003). Scores range from 0 through 3 (0 = very unsatisfactory with a very clear and strong need for improvement, 1 = relatively unsatisfactory situation with a need for improvement, 2 = satisfactory situation with some need for improvement, and 3 = refers to a satisfactory situation with no need for improvement).

Finally, a measure of offenders' altitudinal orientation toward crime is added to the analysis; here it is labeled *antisocial attitudes* and is derived from the

8. With regard to our measure of race, the category of non-White includes 15 individuals who identified either as Hispanic, Asian, or Native American. Due to the small cell counts, it was not feasible to conduct analyses with separate measures created for individuals in these three groups. However, we conducted alternate analyses where the 15 non-White members were recoded in the data file and included as White; the results under the new coding scheme were virtually identical to those reported here.

9. Information on the specific diagnoses from the psychological assessment was not made available to the researchers due to concerns surrounding subject confidentiality.

LSI-R. A parolee's orientation toward offending may underpin their involvement in conventional institutions and also predict offending (Shover, 1996; Stouthamer-Loeber, Loeber, Wei, Farrington, & Wikstrom, 2002). Scores on the item range from 0 through 3, a score of 3 = a very unsatisfactory situation with very clear and strong need for improvement, 2 = relatively unsatisfactory situation with need for improvement, 1 = a satisfactory situation with some need for improvement, and 0 = a satisfactory situation with no need for improvement. The item coding adopted here is reverse coded from the original scoring metric.

Analytical Plan

The analyses proceed in three stages correspond to the study hypotheses. First, we examine the effects of family ties and employment on recidivism. Cox proportional hazards techniques are used to examine the occurrence and timing of recidivism. Hazard models are appropriate for this study as they effectively manage the bias that arises in the process of estimating equations based on censored cases (Cox, 1972; Singer & Willett, 2003). Plus, hazard models take into account differential exposure time, or the variation within the sample in the number of days that subjects are monitored—in the present case, variation in exposure arises from variation in parole dates (Hosmer & Lemeshow, 1999). Positive coefficients indicate that an individual with a given characteristic recidivates more quickly, while negative coefficients denote delayed time until failure.

Second, we deploy logistic regression techniques to estimate the effects of parental ties and ties to relatives on post-release employment (Long, 1997). These models consider the relationships between social ties and the acquisition of a job. Finally to test Hypothesis 3, we use logistic regression models to examine whether parental ties and ties to relatives moderate the effects of poor pre-prison work history and high school education on job attainment.

Results

Table 2 presents the estimates from the Cox proportional hazard models, predicting the timing of the rearrest event. Model 1 omits the measure of post-release employment, and therefore estimates the effect of parental ties and ties to other relatives on recidivism, net of control measures. Consistent with Hypothesis 1, results indicate that parental ties have a negligible influence on recidivism risk; however, men with strong social ties had delayed times to recidivism. The log-odds coefficient (-.393) suggests that good quality ties to relatives have a strong negative effect on the timing of recidivism. In terms of pre-prison, demographic characteristics, men with more extensive criminal history records failed more quickly as did younger men. Measures of education, race, pre-prison employment history, nature of the current offense, and substance abuse history were not statistically significant in the models. However, antisocial attitudes and mental health problems were positively related to recidivism.

Table 2 Cox proportional hazard models predicting recidivism

	Model 1			Model 2		
	Coef.	SE	OR	Coef.	SE	OR
Pre-prison characteristics						
Prior arrests	.020**	.006	1.02	.020**	.007	1.22
Age at release	-.027*	.009	.973	-.030*	.009	.738
Race (non-White)	-.174	.155		-.150	.156	
No high school education	-.077	.154		-.102	.155	
Drug conviction	.030	.170		.049	.174	
Violence conviction	.083	.194		.058	.195	
Alcohol abuse history	.027	.191		.021	.200	
Drug abuse history	.170	.232		.133	.233	
Frequently unemployed	.180	.167		.269	.172	
Post-prison conditions						
Stable living Arrangements	-.019	.093		-.020	.092	
Antisocial attitudes	.224*	.110	1.25	.209*	.099	1.23
Mental health problems	.282*	.110	1.32	.243*	.112	1.27
Intimate partner ties	-.034	.097		-.011	.097	
Ties to relatives	-.393*	.154	.675	-.237	.162	
Parental ties	-.057	.165		-.021	.169	
Employed	—	—		-.375*	.168	.687

* $p < .05$; ** $p < .01$.

Next, post-release employment was added to Model 2. Two main findings emerged from this model. First, post-release employment had a significant, negative influence on recidivism, indicating that men who secured jobs following release from prison are less likely to fail on parole and fail less quickly than unemployed men. Second, when post-release employment is added to the model, the ties-to-relatives variable is no longer significant.¹⁰ Figure 1 depicts the survival rates of employed versus unemployed offenders using the estimates generated in Model 2 of Table 2. Across the follow-up period, employed offenders were less likely to be rearrested.¹¹ For

10. The LSI-R also contains an item related to whether parolees maintain close ties with family members who are involved in crime. To examine its potential role in predicting recidivism, we added this measure to the models in Table 2 in a supplementary set of analyses. Slightly less than 10% of the sample indicated having such ties. Results from multivariate analysis showed that the measure had a non-significant effect on the timing of recidivism ($\beta = .148, p = .101$).

11. We conducted supplementary analysis to probe the nature of the relationship between familial ties and recidivism, particularly the effect of parental ties. First, we re-estimated Models 1 and 2 of Table 1, but analyzed separate models for each of the familial ties measures. We carried out this procedure primarily to determine if the effect of parental ties was diminished by the presence of ties to relatives and vice versa. The correlation between parental ties and ties to relatives was statistically significant ($r = .45, p < .05$), and potentially large enough to partially mask the effects of one another. Results of this exercise indicated that absent the measure of ties to relatives, parental ties did not have a significant effect on recidivism with or without employment in the model.

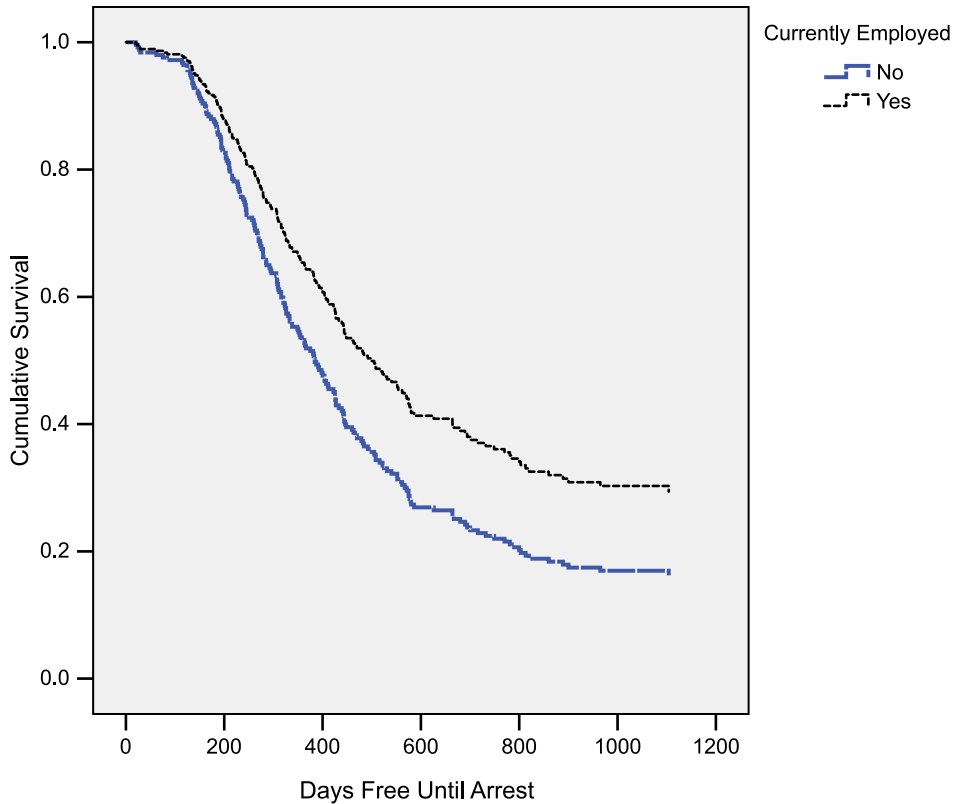


Figure 1 Survival rate stratified by employment status.

instance, by the 600-day mark, approximately 24% of unemployed offenders had survived without an arrest (not recidivated) versus 42% of employed parolees.

Moving to Table 3, we consider if educational attainment, work history, and familial ties are related to post-release employment. Consistent with Hypothesis 2, we find that those who were frequently unemployed prior to incarceration are less likely to be employed in the post-release period. Specifically, men who had an insufficient work history prior to imprisonment were 92% less likely to be employed compared with men with steady pre-prison employment. Contrary to expectations, the relationship between high school education and post-release employment status was not statistically significant. We also predicted that familial ties may bridge offenders to jobs. Somewhat consistent with our predictions, Model 1 of Table 3 indicates that ties to relatives are positively related to employment, whereas parental ties do not have a significant influence on employment status. Furthermore, offenders who are involved in an intimate relationship are also more likely to be employed, suggesting that perhaps ties with intimate partners connect offenders to jobs and sustain their involvement in the

Table 3 Logistic Regression Model Predicting Post-Release Employment

	Model 1			Model 2			Model 3			Model 4			Model 5		
	B	SE	OR	B	SE	OR	B	SE	OR	B	SE	OR	B	SE	OR
Pre-Prison Characteristics															
Prior Arrests	.067	.177		-.005	.157		.068	.172		.048	.168		.061	.187	
Age at Release	-.043*	.017	.957	-.040*	.010	.960	-.041*	.017	.959	-.048*	.018	1.04	-.053*	.011	2.61
Race (Non-White)	.143	.330		.307	.433		.139	.385		.138	.388		.161	.368	
No High School Education	-.366	.333		-.247	.240		-.637	.407		-.607	.408		-.364	.233	
Drug Conviction	.009	.486		.047	.325		.091	.352		.110	.358		.112	.466	
Violence Conviction	-.274	.432		-.388	.277		-.278	.300		-.276	.317		-.301	.399	
Alcohol Abuse History	.185	.334		.101	.329		.179	.308		.168	.325		.181	.330	
Drug Abuse History	-.051	.193		-.047	.125		-.051	.322		-.046	.193		.363	.210	
Frequently Unemployed	-1.92*	.367	.146	-1.57*	.371	.207	-1.91*	.321	.148	-1.55*	.368	.212	-1.20*	.299	.301
Post-Prison Conditions															
Stable Living Arrangements	.343	.249		.300	.244		.292	.240		.287	.281		.340	.189	
Antisocial Attitudes	.509	.428		.519	.418		.490	.422		.428	.377		.477	.369	
Mental Health Problems	-.310	.243		-.359	.299		-.388	.310		-.377	.278		-.299	.311	
Intimate Partner Ties	.444*	.200	1.56	.468*	.247	1.73	.518*	.259		.527*	.261	1.69	.527*	.219	1.69
Ties to Relatives	.756*	.323	2.13	.727	.299	2.07	.755*	.327		.688*	.322	1.98	.689*	.323	1.99
Parental Ties	.039	.184		.009	.188		.033	.117		.039	.111		.033	.164	
Interaction Terms															
Ties to Relatives × Frequently Unemployed	-	-		-1.36*	.448	.256	-	-		-	-		-	-	
Parental Ties × Frequently Unemployed	-	-		-	-		-.891	.591		-	-		-	-	
Ties to Relatives × No High School Edu.	-	-		-	-		-	-		-.765	.570		-	-	
Parental Ties × No High School Edu.	-	-		-	-		-	-		-	-		-1.01	.573	

*p < .05; **p < .01

job.¹² It is also possible, however, that parolees' relations with intimate partners hinge on whether they have a job and therefore partners do not connect offenders to jobs *per se*, but provide the motivation for them to attain a job.¹³ But without additional data it is difficult to decipher the true nature of the effects associated with ties to intimate partners. Overall, the estimates suggest that family ties—in the form of ties to close relatives other than their parents—may play a role in connecting offenders to jobs, while deficits in employment credentials (but not educational attainment) represent a barrier to steady post-release employment.

The next four models include the interactions between each of the two forms of family ties with both education and work history in order to predict post-release employment. Turning to Model 2, the results show that the interaction between ties to relatives and frequent unemployment is statistically significant, suggesting that the negative effect of frequent unemployment on post-release employment is contingent upon ties to relatives. Next, contrary to predictions, parental ties do not moderate the effects of frequent unemployment in Model 3; rather frequent pre-prison unemployment has a negative effect on post-release employment despite whether one has good quality ties to parents. In Model 4, the interaction between ties to relatives and education is not statistically significant. Finally, Model 5 indicates that parental ties also do not moderate the relationship between education and employment as the interaction term is not significant.¹⁴

Figure 2 decomposes the statistically significant interaction term found in Model 2 of Table 3, and displays the probability of post-release employment stratified by work history and the nature of offenders' ties to relatives. Looking

12. In theory, much like parents and other relatives in one's social network, a spouse or intimate partner also perhaps represents a tie that facilitates job attainment (Lin, 2001). However, this idea is not fully articulated in theory, thus we largely focus on relations with the family of origin in this regard. Recall that Table 3 shows that offenders who are involved in an intimate relationship are more likely to be employed, which is consistent with theoretical expectations. We created product terms between intimate ties and frequent unemployment and between intimate ties and educational attainment in order to examine whether intimate partner ties moderate the effects of deficits in personal capital on employment. The two interaction terms failed to reach statistical significance, suggesting that intimate partners do not play a significant role in moderating the effect of educational attainment or work history on the acquisition of a job.

13. We would like to thank an anonymous reviewer for suggesting this potential explanation.

14. We examined the possibility that the findings in Table 2 with regard to family ties and employment may not be generalizable across time points during the post-release period. Common to reentry research of this type, we use static measures of post-release conditions in our analysis, while recidivism is a time-varying outcome. However, the nature of the post-release context likely changes over time, which may limit the predictive efficacy of our fixed measures. Indeed, the effects noted in Table 2 may be time-dependent. To gain some insight into this possibility, we re-estimated the models in Table 2 but restricted the outcome to capture recidivism at 6-, 12-, and 18-month time periods. In other words, we estimated Models 1 and 2 in Table 2 with the outcome measure censored at three different periods. Results from the supplementary analyses were very similar to those reported here, with the exception of the drug abuse history variable—it was positive and significant in the 6- and 12-month models but not in the other set of models restricted at 18 months. These results are not shown owing to space concerns; however, they are available upon request from the authors.

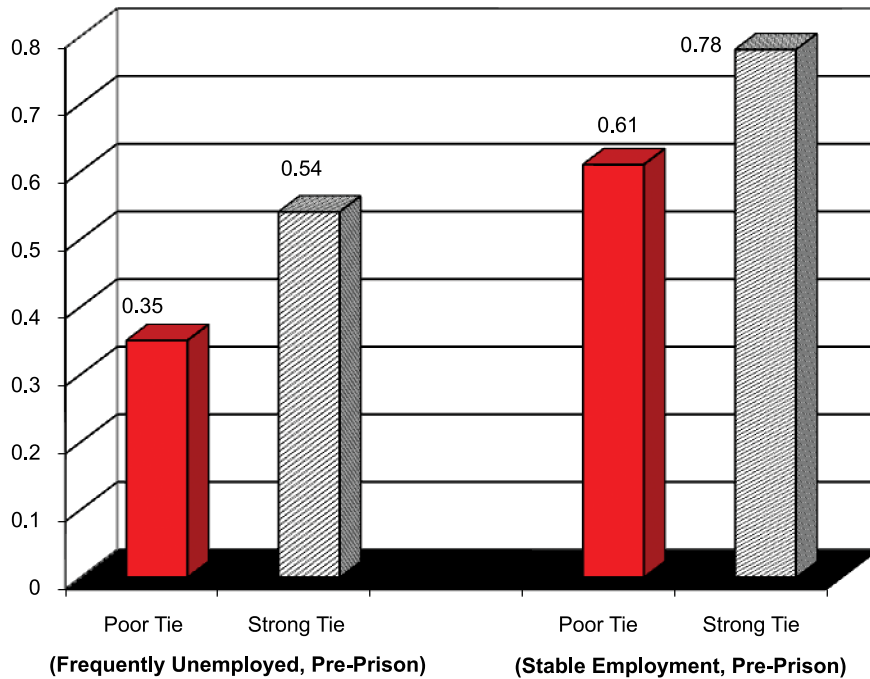


Figure 2 Effects of ties to relatives on post-release employment by history of pre-prison employment: predicted probabilities.

at the pair of vertical bars situated on the left side of the figure above the heading “frequently unemployed”, the predicted probability of employment for those with poor quality ties to their relatives is (.35) versus (.54) for those with good quality ties. Moving to the right side of the figure, the two bars positioned above the heading “stable employment” indicate that the predicted probability of post-release employment is (.61) for those who had poor ties versus (.78) for those who had good quality ties. This analysis suggests that, controlling for their employment history, offenders with good quality ties to their relatives are at an advantage with regard to acquiring post-release employment—these relational ties not only benefit offenders with a relatively viable work history, but also those with an instable pre-prison work history. As the diagram indicates, without a provision of good quality ties, parolees with an instable pre-prison work history have a lower predicted probability of job attainment in the post-release context.

Discussion and Conclusion

Extant research suggests that family members are a meaningful component of offenders’ social networks in the post-prison context; in fact, ties to family are a persistent correlate of post-release success. This evidence prompts questions about the nature of the processes through which family ties affect

recidivism. Although criminological research has theorized the meaning of the link between familial ties and recidivism, to date only a small number have empirically investigated the mechanisms by which these ties alter post-release behavior.

In the current study, we employed an integrated theoretical framework involving social capital and criminological theories in order to develop a series of hypotheses. Specifically, we sought to resolve questions regarding whether social ties connect offenders with jobs, and in turn indirectly shape recidivism risk. The analyses uncovered three main conclusions to this end. First, offenders who were employed and had good quality ties to relatives were less likely to recidivate. Second, offenders with good quality ties to relatives were more likely to be employed in the follow-up period. Third, a history of frequent unemployment reduced post-release employment; however, this effect was moderated by good quality ties to relatives. Specifically, a history of frequent unemployment had a strong negative effect on post-release job attainment; however, the magnitude of this effect was significantly weaker among those with good quality ties to their relatives.

The findings of this study have several implications for theory and future research on prisoner reentry and recidivism. First, the findings build on recent empirical developments relating to the role of familial social ties in the etiology of recidivism. For instance, a study by Bales and Mears (2008) found that inmates who were visited in prison had lower rates of recidivism and these effects were more pronounced when visitation was made by offenders' family members. Assuming that the familial interaction occurring during periods of visitation is transferred beyond the prison walls into the post-release setting, the current findings suggest that one way in-prison visitation promotes desistance is by acting as a vehicle through which offenders gain access to the job market (see Glaser, 1964, pp. 214-216). Although beyond the scope of this study, it is reasonable to posit that information is perhaps transmitted during in-prison visits between inmates and their families regarding potential sources of employment (see also Shapiro & Schwartz, 2001). By procuring job arrangements while imprisoned, released offenders reenter free society already tethered to family networks and also enter the job marketplace on a more solid footing (Glaser, 1964). Taken together, these findings highlight the need for a continuum of broad-based family support programs that include parents, spouses, and extended family members.

Second, the findings fail to support the notion that familial ties bear *directly* upon recidivism. While ties to relatives significantly reduced recidivism, once employment was included in the model, the effects of these ties were reduced and were no longer statistically significant. This finding is consistent with recent qualitative research which suggests that the social support provided by family members is a condition that motivates offenders to immerse themselves into more conventional life domains (see Giordano et al., 2002; Maruna, 2001; see Shover, 1996). Hence, it may be that the processes of social control, support, and identity transformation provided by family ties may motivate offenders to

attain legitimate work (see Maruna, 2001, pp. 122-123). In this way, family social processes may not be direct importance for offenders' behavior per se, but have a more meaningful influence on their involvement in roles—i.e., holding a job—consistent with leading a conventional lifestyle (Shover, 1996).

However, there is an alternative explanation in the literature for the null effects of family ties on recidivism. The literature suggests that the social support family ties supply to reentering offenders may perhaps grow more salient with the passage of time. Owing to the fact that offender's intent to "go straight" was not authentic in the past, observers note that offenders' family members sometimes feel suspicious and reluctant to dedicate much of their time and effort to being an agent of reform (see Braman, 2004; Glaser, 1964; Maruna, 2001, p. 156). But as offenders demonstrate their dedication to conformity in concrete ways, some studies find that family members subsequently increase their level of commitment to facilitating offender's successful transition into society. For instance, Farrall (2004, pp. 66-67) noted that employment "changed others opinions" of offenders resolve to abstaining from crime. In one case, an offender's family "no longer saw him as a druggie" once he began working steadily at a job, this in turn enhanced the quality of the relationship between he and his family (see also Glaser, 1964, p. 221).¹⁵ If the degree of social support that families supply is contingent upon offenders' demonstration of reform, then this would suggest that perhaps family ties help offenders penetrate the job market and employment in turn also enables a more resourceful relationship between the offender and their family (Farrall, 2004). In this way, family ties and job attainment are mutually beneficial to one another. Few have examined these ideas systematically, hence they warrant future research.

We uncovered a nuanced set of findings with regard to the effects of family ties on offending and employment—ties to relatives but not parents were important predictors of recidivism and job attainment. Research on adult child-parent relations suggests that parental support to adult children commonly involves the exchange of emotional support and companionship, especially among older children from poorer families (Lye, 1996). It is possible that this unique provision of support paradoxically diminishes offenders' need to find employment and gain both material and financial independence.¹⁶ Ultimately, this may have detrimental effects on whether they are able to desist from offending in the post-release environment. In addition, the analyses showed that offenders with strong marital ties are also more likely to gain employment upon release. Neither social capital nor criminological theory makes explicit assumptions about whether ties with parents versus other relatives (including intimate partners) are most relevant to prisoner reentry. Some empirical evidence suggests that offenders are most likely to rely on assistance from their parents, particularly their mothers upon release (Visher et al., 2008), whereas other research

15. In fact, Ericson (1977, p. 24) asserts that "employment is *the* indication of respectability" it signifies to the wider community that offenders have made an alignment with legitimate society.

16. We would like to thank an anonymous reviewer for prompting this idea.

has shown that reentering offenders commonly turn to siblings and cousins in part because their parents are either enfeebled or deceased (Braman, 2004; Farrall, 2004; Glaser, 1964; Irwin, 2005; Maruna, 2001; Shover, 1996). In addition, the literature linking marriage to positive outcomes on parole is quite strong, yet data show that few high-risk offenders are married before prison and even fewer sustain marriages following incarceration (Huebner, 2005). This project represents an initial inquiry into the role of family ties in prisoner reentry; we encourage future research to pay closer attention to the characteristics of the actors embedded within offender networks in order to develop this line of work further.

Finally, our observation that ties to relatives attenuated some of the negative effects of inadequate work history on post-release employment highlights the utility of social capital theory for understanding job attainment among reentering offenders. These results mirror those frequently reported using non-offender samples, suggesting that while credentials (i.e., work history) are significant predictors of job attainment, the people one knows are perhaps equally or even more important when it comes to finding a job (Granovetter, 1974; Lin, 2001). In fact, recall that the interaction terms indicated that irrespective of pre-prison employment history, those with quality ties to family had a higher predicted probability of being employed in the post-release setting. On a practical level, these findings suggest that in the absence of good quality ties, reentering offenders with insufficient credentials have poor prospects of finding a steady job. Consequently, their risk for recidivism is relatively high. With regard to reentry programming, this implies that by developing close ties between reentering offenders and people who have a strong traditional obligation to offer assistance, such as family members, offenders might be more successful at finding opportunities in conventional arenas. Future research should build upon this study by isolating the precise way these and other social ties in offenders' networks (i.e., friends, community leaders) alleviate barriers to employment.

Before concluding, it is important to illuminate the caveats to our study. First, alternative explanations might question the validity of the results uncovered in Tables 2 and 3. It is possible that employment, family ties, and recidivism are all symptoms of an underlying unobservable trait, including low self-control, sensation seeking, or risk taking (Gottfredson & Hirschi, 1990). Under these circumstances, the observed statistical relationships are spurious and explained by unobserved heterogeneity. Put differently, this would mean that parolees who secure employment compared to those who do not would differ from one another according to an unobserved trait, a trait which would also confound the negative effect of employment on recidivism. Empirical researchers have found, however, that the link between employment, various types of social ties, and criminal behavior remains strong notwithstanding rigid methodological controls for unobserved propensity or selection (Horney et al., 1995; Laub & Sampson, 2003; Uggen, 1999; cf. Uggen et al., 2005, p. 213). Furthermore, we included measures (i.e., substance abuse, arrest record, antisocial attitudes, mental health conditions) which, existing research suggests, represent viable proxies for unobserved

propensity (see DeLisi, 2005; cf. Gottfredson & Hirschi, 1990; Matsueda, Gartner, Piliavin & Polakowski, 1992; Stouthamer-Loeber et al., 2002). This strategy provided us with added confidence in the validity of our findings. Proxies, of course, are no substitute for true experimental designs; in the future research should attempt to isolate the extent to which propensity or self-selection contributes to the relationships uncovered here.

Second, our measures of social ties (parental ties, ties to relatives, and intimate partner ties) have the important advantage of capturing both the quality and presence of the network tie, still they cannot tell us about the role of key actors within the tie in facilitating reentry outcomes. For example, our measure of ties to relatives includes a broad array of potential individuals; therefore, we can only comment on the cluster of individuals who fall under this classification and are not able to identify whether cousins, aunts, uncles, or grandparents are important actors in one's social network. Furthermore, our measures of post-prison social conditions—similar to other research of this type—are static and hence do not capture the dynamic nature of the post-release period. For example, we assess social relationships at the two-week mark when the LSI-R was administered, yet at this time-point these relationships may be of a different quality, perhaps less conflicted and more supportive, than at a later time-point when the stressors of post-release life may be more fully realized (Farrell, 2004). Likewise, the measure of post-prison employment would be a stronger indicator if it included data on the quality and nature of employment across *repeated* time-points in the post-release period (see also Note 16). Plus, we are not able to capture the sample members' attachment to work, which may shape their employment experiences and ultimately recidivism; however, there is existing research to suggest that even low-wage work can be important for most offenders (Uggen, 2000). This study is an *initial* attempt to gain a more complete understanding of social ties and reentry, but in order to develop this line of work further, future research should adopt measures that identify the family members who play a prominent role in offenders' release and take additional steps to quantify the dynamic nature of employment experiences.

In conclusion, the goal of this research was to further explore the mechanisms by which social ties affect criminal trajectories and post-release outcomes. As noted extensively in the literature, incarceration can be a driving force in the pathway of chronic offending through its corrosive effect on conventional opportunities and relations. Laub and Sampson (2003, p. 291) assert that what is needed is a "series of mechanisms to bring offenders back into the institutional fabric of society." Our findings suggest that by facilitating job attainment, familial social ties, as well as marriage, we may break the cycle of prison to unemployment and thereby stymie the pathway of state dependence leading from prison to reoffending. Although more research is needed to illuminate the specific mechanisms that link social ties to employment, this research suggests that strengthening offenders' social relationships may have important implications for job attainment, and may be one possible path to desistance.

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Appendix 1. Supplementary Variable Coding Information from the LSI-R Scoring Guide

Variables	Description
Stable living arrangements	The item is scored on a three-level ordinal scale. Scores of (3) are assigned if the offender expresses satisfaction with home; has long-term plans to continue living there takes pride in their home or takes measures to increase value or comfort. Scores of (2) are assigned if the offender is satisfied with living arrangements but is not expressing complete satisfaction, has been there only a short time or willing to move if a better place comes along. Scores of (1) are assigned if the offender is dissatisfied or indifferent regarding current conditions, if they are in temporary housing, making few efforts to improve the home or the environment, if they like the residence but are living with antisocial others. Score of (0) are assigned if the offender displays extreme dissatisfaction with living arrangements, if they claim they are only staying there temporarily, they are homeless, or living with antisocial others.
Antisocial attitudes	The item is scored on a three-level ordinal scale. Scores of (0), <i>satisfactory situation</i> , are assigned if an offender places an emphasis on the negative consequences of law violation, if they accept responsibility for their own actions, and if the offender rejects justification for law violation. Scores of (1), <i>relatively satisfactory situation</i> , are given if an offender's recent behavior and self-disclosure indicate pro-social inclinations, if the offender has a sense of respect for rules beyond just "talking the talk" and if the individual has some awareness of the effects of criminal behavior on the lives of others. Scores of (2), a <i>relatively unsatisfactory situation</i> , are determined by whether the offender expresses guilt for the victims, but mixed expression of concern (e.g., I was in the wrong place at the wrong time or I wish I hadn't been caught) and if the offender says that they value pro-social behavior, but is acting in contrast to that by breaking the law, defying authority. Finally, scores of (3), a <i>very unsatisfactory situation</i> , are assigned if an offender places emphasis on the usefulness of criminal activity, if they express rationalizations for law violations and do not appear to have the ability to be genuinely sensitive to the feelings and wishes of others including victims of criminal behavior, if they are hostile toward the police or courts, if they explain prior offenses with no guilt or remorse, or if they have self-identified as a criminal.
Mental health problems	According to the LSI-R scoring guide, examples of moderate mental health problems may include mild anxiety or mild depression. Also, according to the scoring guide severe mental health problems are detected by observing the following factors: excessive sweating, extreme passivity or aggression, verbal abusiveness, odd or strange verbalizations, very slow or very fast speech, rambling conversations, auditory or visual hallucinations, delusional thinking. Moreover, DOC officials assessed severe interference based on in-prison psychiatric reports assessed by medical staff.

Appendix 1. (continued)

Variables	Description
Ties to relatives and parental ties	<p>These two items were originally coded on a three-item ordinal scale: (0) <i>unsatisfactory</i>, (1) <i>relatively unsatisfactory</i>, (2) <i>relatively satisfactory</i>, and (3) <i>highly satisfactory</i>. According to the LSI-R scoring criterion, a score of (0) is given to relationships that are absent, hostile, punishing, or uncaring, or in cases when no contact is maintained, or if the offender has contact but the family condones antisocial attitudes; a score of (1) is given to relations marked by significant conflicts, dissatisfaction, or indifference regarding the relationship on either part; when there is irregular contact or personal contact; a score of (2) is given to relationships that are mostly reward, positive, and when there are good attempts at caring and positive influence with regular contact; and finally, scores of (3) are given to relationships that are highly satisfying, with obvious caring and positive influence, and one in which the offender maintains regular contact. The measure was subsequently recoded into a binary indicator (see Table 1).</p>
Intimate partner relationships	<p>This item was scored on a four-level ordinal coding scheme. Relationships are coded as <i>very unsatisfactory</i> (0) if it is unpleasant or hostile and includes a history of, or recent abuse; <i>relatively unsatisfactory</i> (1) if there are conflicts or problems with the partner, significant stressors, or ambivalence regarding continuing the relationship, and includes offenders who are single but lonely; <i>relatively satisfactory</i> (2) if the relationship is mostly rewarding and caring, and this group includes men who are single but wish to become involved in a relationship; and <i>highly satisfactory</i> (3) if the relationship is highly satisfying and all partners are effectively able to deal with conflict.</p>

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