Article

Crime & Delinquency
58(3) 331-361

DOI: 10.1177/0011128710382348
http://cad.sagepub.com

Men, Women, and Postrelease Offending: An Examination of the Nature of the Link Between Relational Ties and Recidivism

Jennifer E. Cobbina[1], Beth M. Huebner[2], and Mark T. Berg[3]

Abstract

Numerous studies have examined the postrelease behaviors of men and women, highlighting the importance of social bonds in understanding positive reentry. However, there is evidence that the effect of social bonds on recidivism may vary by gender. Furthermore, research suggests that an individual's propensity for criminality, including prior criminal history, may hinder the development and maintenance of positive social bonds and subsequently affect reentry transitions. The current study extends previous research in two ways. First, the authors examine gender differences in the sources of recidivism and focus on the role of social ties and criminal history in shaping recidivism risk. Next, the authors consider if the influence of parolees' ties to their parents and intimate partners is conditioned by their criminal history. The results reinforce the importance of social ties, particularly to parents, for

[1]Michigan State University, East Lansing, MI, USA
[2]University of Missouri–St. Louis, St. Louis, MO, USA
[3]Indiana University–Purdue University, Indianapolis, IN, USA

Corresponding Author:
Jennifer E. Cobbina, School of Criminal Justice, Michigan State University, 560 Baker Hall, East Lansing, MI 48824, USA
Email: cobbina@msu.edu

parolees; however, the results also suggest that male relationships with parents and intimate partners may be influenced by prior criminal involvement.

Keywords

gender, prisoner reentry, recidivism

An established body of literature has documented the correlates of recidivism. These studies suggest that factors such as age, criminal background, drug use, education, and employment status are important for understanding recidivism outcomes for men (Gendreau, Little, & Goggin, 1996; Langan & Levin, 2002) and women (see Kruttschnitt & Gartner, 2003, for a review). A number of important findings have emerged. First, prior criminal history is an important marker of recidivism risk; individuals who have been involved in crime are most likely to repeat these behaviors in the future (Kurlychek, Brame, & Bushway, 2006). Conversely, strong social bonds are an important catalyst for desistance (Laub & Sampson, 2003). However, recent research suggests that the effect of social bonds on offending may be conditioned by criminal propensity, particularly prior criminal involvement, and gender (King, Massoglia, & MacMillan, 2007).

The goal of the current study is to further refine our understanding of postrelease outcomes by examining the within- and between-gender patterns of recidivism among a diverse sample of men and women released from prison. There is ample theoretical and empirical evidence indicating that men's and women's exposure and response to life circumstances in the postrelease context are distinct, suggesting that the array of factors producing successful release outcomes do not have a uniform influence across gender lines. These facts highlight the potential need for a gender-specific understanding of recidivism (La Vigne, Brooks, & Shollenberger, 2009; Uggen & Kruttschnitt, 1998).

Furthermore, in an attempt to examine the effect of social ties on crime, many studies measure marital status and/or intimate partner relationships using dichotomous variables (Griffin & Armstrong, 2003; Horney, Osgood, & Marshall, 1995; Huebner, DeJong, & Cobbina, 2010; King et al., 2007). This is surprising because theory underscores that the quality and strength of the relationship is vital, rather than just the presence or absence of a relationship (Sampson & Laub, 1993). Sampson and Laub (1993) argue that "adult social ties are important insofar as they create interdependent systems of obligation and restraint that impose significant costs for translating criminal propensities into action" (p. 141). Thus, we set out to examine how recidivism is

affected by social relationships by capturing not only the presence of ties but also their quality and nature.

Finally, we examine whether the effects of postrelease social ties are conditioned by criminal history. Recent criminological research has discovered variation among individuals (e.g., based on criminal history, substance abuse) in the propensity to enter into social relationships, particularly marriage (King et al., 2007; Sampson, Laub, & Wimer, 2006); therefore, in theory, the association between social ties and recidivism may be contingent on the extent to which one has been involved in crime. The gendered nature of offending further underscores the potential variation in the interaction between criminal history, social relationships, and recidivism.

Gender and Prisoner Reentry

There is general consensus in the criminological literature that social relationships matter for understanding crime. Social ties to individuals and institutions can inhibit the impulse to offend in a number of ways (Sampson & Laub, 1993). First, strong, positive social bonds can be a rich source of social support and capital, making possible the achievement of certain ends that would not have been previously available (see Coleman, 1988). Most men and women returning home from prison obtain some level of social and economic support from their family (Visher & Courtney, 2006). As meaningful social relationships increase, ex-offenders are more likely to amass the human capital they need to provide them access to institutional roles in work and education (Bazemore & Erbe, 2004). Social relationships also dominate daily routines, reducing situational opportunities for crime such as the association with deviant peers (Warr, 1998). Finally, support from social institutions and conventional relationships also signals to offenders that they can become productive members of society and can contribute to the formation of a prosocial identity (Braithwaite, 1989; Maruna, 2001).

Although social relationships, particularly marriage, have been identified as critical for understanding the patterns of offending behavior among male samples, there is evidence that these factors may also have differential effects on female criminality (De Li & MacKenzie, 2002; Simons, Stewart, Gordon, Conger, & Elder, 2002). Although research is mixed, studies suggest that attachment to a male romantic partner may initiate or amplify women's deviant activity. Although females, in general, are less likely to engage in criminal activity than males, when they do it is often a by-product of their emotional attachment to a criminally involved boyfriend or spouse (Gilfus, 1992; Mullins &Wright, 2003). For instance, in their examination of male and female felony

offenders, Alarid, Burton, and Cullen (2000) discovered that women who are married to or cohabiting with a male offender are significantly more likely to participate in drug and/or property offenses (see also Griffin & Armstrong, 2003). Common to research of this type, Alarid et al. (2000) did not have access to information on the quality of the relationships.

The empirical research on gender, intimate partner relationships, and prisoner reentry has been mixed. There is ample evidence to suggest that marriage reduces the odds of offending for male offenders (Horney et al., 1995; Visher, Knight, Chalfin, & Roman, 2009). However, recent research using an all-female sample did not observe a significant association, either positive or negative, between marriage and recidivism (Huebner, DeJong, & Cobbina, 2010). Of particular relevance to the current study, King et al. (2007) found that although marriage was a strong protective force for male offenders, separate from the propensity to marry, marriage only reduced criminal involvement for females with moderate propensities to marry. Moreover, King et al. found that marriage did not influence the behavior of women with low "marriage-capital" (e.g., little educational attainment, inconsistent work histories, prior criminality), suggesting that returning female offenders may not derive the same benefit from intimate partner relationships as similarly situated male offenders. An important note, however, is that the studies mentioned above are limited primarily to the presence or absence of a relationship with a spouse or a significant other. To date, very little research of this type has explored how women's reentry is influenced by the quality of their prosocial relationships.

As noted, family provides an important social network for offenders returning from prison. Most offenders return home to live with their family, usually remaining for several months (McMurray, 1993). Studies show that families often provide support to a loved one who is released from prison, which can result in positive change. For instance, a study by the Urban Institute on men's reentry in Chicago found that nearly all the respondents received a degree of financial support from family members (La Vigne, Visher, & Castro, 2004). Moreover, the study revealed that quality familial relationships reduced the likelihood of reconviction. However, empirical evidence suggests that females are more likely to have strong attachment to family; whereas, males, particularly young men, are more likely to look to peers for social support (Anderson, 1989).

Finally, research shows that peer networks can influence behavior patterns for both males and females (Cairns & Cairns, 1994; Haynie, 2001; Rowe, Vazsonyi, & Flannery, 1995; Simpson & Elis, 1995). For instance, some studies find that although girls are more likely to have more intimate

and affectionate friendships than boys (Giordano, Cernkovich, & Pugh, 1986; Steffensmeier & Allan, 1996), males are more susceptible to negative peer influence (Giordano et al., 1986). On the other hand, several studies reveal that the companionship of nondelinquent peers reduces women's risk of engaging in criminal behavior (Uggen & Kruttschnitt, 1998). Furthermore, research suggests that peer attachment may exert greater social control for females than for males (Alarid et al., 2000). In their examination of young adults, Simons, Stewart, Gordon, Conger, and Elder (2002) discovered that deviant peer networks influenced the choice of a romantic partner and involvement in criminal activities. Although they revealed that having an antisocial partner was strongly associated with crime for young men and women, they found that romantic relationships exerted greater influence on the criminal activities of females than males. Peer networks are also frequently implicated in the onset and persistence of criminal behavior. Actors who forge strong ties with others involved in crime are more likely to offend than those who have few or no criminal associates (Giordano, Cernkovich, & Holland, 2003; Haynie, 2001).

As noted, opportunities for involvement in prosocial relationships are not equally distributed across the population. Instead, researchers have identified a number of factors that can influence selection into relationships with conventional actors. Individuals with high propensities toward crime are often hesitant to enter into prosocial relationships, such as marriage. For example, Anderson (1989, 1990) suggests that disadvantaged African American males who have high levels of criminal involvement are typically reluctant to get married because of the limited educational and employment opportunities available to them, which makes it difficult for them to assume the traditional responsibilities of husband and father. Furthermore, Black males are often concerned about the negative influence marriage has on friendship ties because middle-class norms regarding marriage often conflict with the values of their own peer groups (Anderson, 1989; Giordano, Longmore, Manning, & Northcutt, 2009). Third, identification with a criminal subculture can diminish familial relationships because of the strain and hardships placed on family members (McCarthy & Hagan, 2001; Western, Lopoo, & McLanahan, 2004).

In addition, substance abuse appears to condition the positive relationships with family and can increase the likelihood of failure on parole. Research shows that most offenders under correctional supervision have a prior history of drug use and/or related criminal activity (Mallik-Kane & Visher, 2008). Drug offenders, overall, have some of the highest rates of recidivism; 67% of drug offenders released from prison in 1994 were reconvicted (Langan &

Levin, 2002). Multivariate analyses reinforce the strong, positive relationship between drug involvement and recidivism following release from prison for male and female samples (Huebner et al., 2010; Spohn & Holleran, 2002).

Researchers have documented gender differences in the pathways to substance abuse. For women, the path to drug use is typically complex, often resulting from a breakdown in individual, familial, and environmental protective factors (Bloom, Owen, & Covington, 2003). Some women, for example, are introduced to drugs as children by adults (DeHart, 2005). Other women use drugs as a coping mechanism to ease the physical, sexual, and psychological pain of abuse (Chesney-Lind, 1997; Daly, 1998; DeHart, 2005). Moreover, empirical evidence suggests that women's initiation into drug use typically stems from their relationships with male intimate partners, and they often continue to use drugs to maintain the relationship (Covington & Surrey, 1997). Evidence also suggests that substance abuse plays an important role in explaining women's involvement in crime and is an especially strong predictor of recidivism (Dowden & Blanchette, 2002). On the other hand, drug use is particularly salient in the lives of male persistent offenders. Many qualitative studies have reported that substance abuse results in increased levels of repeat offending among males who are deeply embedded in criminal behavior (Maruna, 2001; Shover, 1996; Zamble & Quinsey, 1997).

The Present Study

Although studies have been amassed on the reentry experiences of released inmates, we believe that this line of inquiry can be refined further by examining the within- and between-gender variation in recidivism. Specifically, we estimate the likelihood of recidivism among a large, diverse sample of men and women discharged from prison, paying attention to the social ties and criminal history of the offenders. Next, we consider if the influence of male and female parolees' ties to their parents and intimate partners is conditioned by their criminal history. Together, these analyses broaden our theoretical knowledge of the gendered nature of reentry and have important implications for policy.

Data and Method

The data set for the current study comprise a random sample of 570 offenders, 169 females and 401 males, paroled from prisons in a single Midwestern state in 2000. The data were culled from official agency records.[1] We obtained information on offenders' preprison demographic characteristics, officially

recorded criminal history records, and postrelease arrests from the Department of Corrections (DOC) databases, while the data on postprison social conditions and preprison 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 semistructured interview within approximately 2 weeks of their discharge from prison, during their initial parole meeting.[2]

More specifically, the LSI-R is a widely used, 54-item risk assessment instrument administered in a structured interview to plot parolees' risk for re-offending and measure their progress while under supervision; it captures pre- and postprison 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, as several studies show that the LSI-R has predictive validity (Vose, Cullen, & Smith, 2008) and high test–retest reliability (see Andrews & Bonta, 2006). The LSI-R is widely used by correctional officials in North America, who currently use the instrument as part of offender management protocols (see Petersilia, 2003; Smith, Cullen, & Latessa, 2009).[3] Our purpose is not to conduct an evaluation of the LSI-R's predictive validity but to draw on 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 the descriptive statistics and the results of the multivariate analyses.[4]

Dependent Variable

The goal of this analysis is to examine gender disparities in the risk for recidivism. We operationalize recidivism as an offender's first arrest following release from prison. Data on time-to-failure were also collected and reflect the number of days until rearrest during the 46-month follow-up period.[5] The descriptive statistics indicate that 260 (65%) of the males in the sample and 92 (55%) of the females were rearrested in the follow-up period. These figures correspond with the estimates reported in other studies of this type (Deschenes, Owen, & Crow, 2007; Langan & Levin, 2002). Men averaged 619 days ($SD = 389$) in the community without being arrested, and women spent approximately 747 days in the community ($SD = 364$) before re-offending. The descriptive statistics and a description of the variables used in the study are presented in Table 1.

Table 1. Summary Statistics for Study Variables

	Male Sample		Female Sample		
Variable	Mean	*SD*	Mean	*SD*	Description
Dependent variable					
Recidivism	619.47	389.19	747.55	364.17	Occurrence and timing of the first postrelease arrest during the 46-month follow-up period
Independent variable					
Release age	31.8	8.7	32.5	6.93	Age in years at release from prison
Prior arrests	9.14	8.57	7.27	6.69	Number of prior arrests
Black	28%		24%		1 = African American, Hispanic, or Native American; 0 = White
Drug abuse history*	68%		87%		1 = Offender used drugs more than three times per week, offender reported passing out or blacking out, substance use affected other life domains, or offender had contacts with medical facilities for treatment and dependence; 0 = respondent did not report prior drug use
Alcohol abuse history*	73%		49%		1 = Respondent drank alcohol more than three times per week, respondent reported passing out or blacking out, substance use affected other life domains, or respondent had contacts with medical facilities for treatment and dependence; 0 = offender did not report prior alcohol use

(continued)

Table 1. (continued)

Variable	Male Sample Mean	Male Sample *SD*	Female Sample Mean	Female Sample *SD*	Description
Property offense	46%		50%		1 = Served time in prison for larceny, theft, burglary, fraud; 0 = drug-related or other crime
Violent offense*	14%		5%		1 = Served time in prison for rape, robbery, homicide, felonious assault, arson; 0 = incarcerated for drug-related or other crime
Employed postrelease	46%		48%		1 = Parolee is employed for 30+ hours per week; 0 = offender works less than 30 hours per week, offender has a sporadic work history, offender is in a temporary position, or employment cannot be verified
Parental ties	1.19	.84	1.39	.84	1 = Relationship with parents is relatively or very satisfactory; 0 = relationship is relatively unsatisfactory or very unsatisfactory, or nonexistent
Intimate partner relationship	1.44	.77	1.43	.88	0 = Relationship is very unsatisfactory; 1 = relatively unsatisfactory situation; 2 = relatively satisfactory situation; 3 = a very satisfactory relationship
Criminal peers	85%		88%		1 = Individual has friends (or did prior to incarceration) who have criminal records or who are involved in criminal activity; 0 = no documentation of peer criminal involvement

*Groups are significantly different at $p < .05$ (two-tailed test).

Independent Variables

We employ four broad clusters of independent variables in the analyses: (a) demographic characteristics, (b) preprison substance use, (c) criminal history, and (d) postrelease factors. With regard to demographic characteristics, we incorporate a dichotomous measure of *race* (Black = "1"),[6] and a measure of offender *age* (in years) at release. The average age of men and women is approximately 32 years; moreover, roughly one quarter (24%) of males and 28% of females are Black.

Three variables capture offenders' criminal history. The *prior arrest* measure is continuous and reflects the total number of times an offender was arrested prior to his or her current prison term. Arrest data were generated from a criminal background check conducted by the DOC officials. Men averaged nine prior arrests, whereas females averaged a little more than seven arrests. The differences between groups were not statistically significant. In addition, we included two variables indexing the nature of the offense for which the sample member was incarcerated: *violent offense* (yes = "1") and *property offense* (yes = "1").[7] The variable reflecting *drug offense* is considered the reference category. In total, 46% of men and 50% of women were serving time for a property offense. Men were statistically more likely to be serving time for a violent offense than women (14% of men, 5% of women).

Two measures of preprison substance use are included, both of which are derived from the LSI-R. The *alcohol abuse history* (yes = "1") denotes a prior alcohol problem, whereas *drug abuse history* (yes = "1") pertains to whether an offender ever had a drug problem. We coded the items based on the criterion for substance abuse history noted in the LSI-R scoring guide (1 = "prior to prison, the offender drank alcohol or used drugs more than three times per week and reported passing out or blacking out; the substance use affected other life domains, such as work, education, intimate relations, family; or the offender had contacts with medical facilities for treatment and dependence"; 0 = "the offender did not report substance abuse"). Women were significantly more likely to report drug use, whereas men reported high a incidence of alcohol abuse. Overall, 87% of females reported having a problematic history of drug abuse, whereas 68% of men reported a similar history. Men (73%) were more likely than women (49%) to report a problem with alcohol in the past.

Relational ties to family and intimate partners are measured separately using constructs derived solely from the LSI-R, and both measures are constructed using baseline data collected shortly following release (see the appendix for additional information on LSI-R coding schemes).[8] Specifically, we capture the quality of offenders' *parental ties* with a measure scored on a

4-point ordinal scale (0 = *very unsatisfactory situation 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*, 3 = *satisfactory situation with no need for improvement*). In addition, we include a measure designed to capture the quality of an offenders' *intimate partner relationships*; this measure refers to marriage and intimate relationships not bonded by marriage. Scores range from 0 to 3 (0 = *very unsatisfactory situation 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*, 3 = *satisfactory situation with no need for improvement*).

In addition, we include a measure of *postrelease employment* that was gathered by the DOC and reported on the LSI-R assessment (1 = *full-time work—30+ hours per week*, 0 = *part-time, sporadic employment, or unemployed*). Offenders who reported acquiring full-time work (30 hours or more of paid employment per week) were asked to provide parole officials with their employers' contact information, and this information was used to verify the offenders' employment status. Postrelease employment was assessed within approximately 4 weeks of the parolees' discharge and updated as new information became available.[9] A little less than half of the men and women in our study were employed in the postrelease environment.

Finally, from the LSI-R, we include a measure of whether offenders have *criminal peers* (yes = "1") within their social network; the measure is coded as a dichotomous variable. The measure is coded "1" if the individual has friends (or did prior to incarceration) who have criminal records or who are involved in criminal activity and "0" if there is no documentation of peer criminal involvement.[10] Men and women identify high levels of negative peer involvement, with 85% of men and 88% of women reporting involvement with friends who have histories of criminal offending.

Multivariate Analysis

The analyses proceed in three phases. First, we begin by graphically depicting the cumulative survival functions for men and women to provide a visual representation of the risk for recidivism across time. As displayed in Figure 1, across the follow-up period, women had a higher rate of cumulative survival than men. In other words, at each successive time point following release from prison, men recidivated at a greater rate than women. For instance, looking at the 300-day mark, the figure suggests that roughly 80% of women had not yet been rearrested, compared with 74% of men. By the 600th day

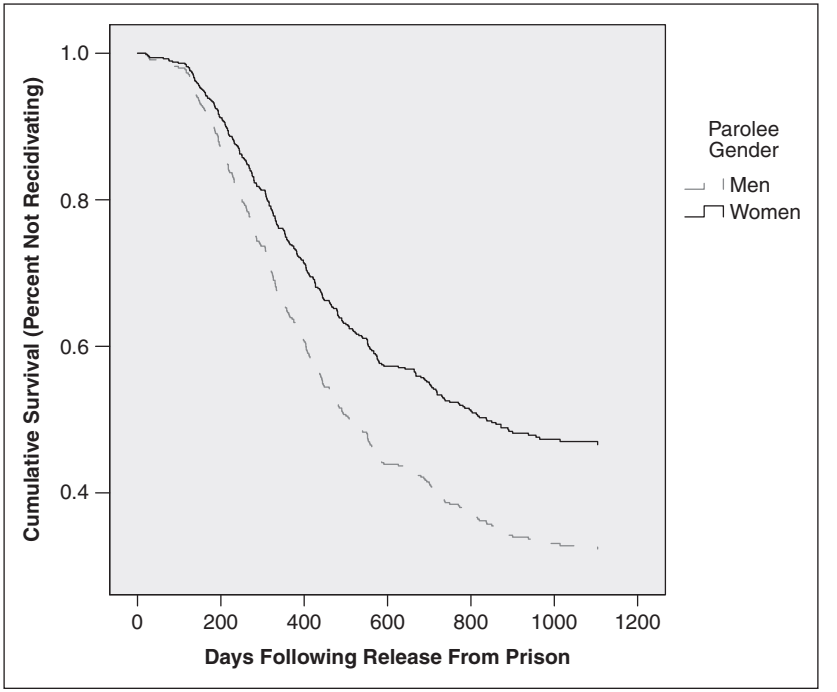

Figure 1. Cumulative survival function stratified by sex

mark, the disparity between men and women had increased, with 58% of women arrest-free versus roughly 42% of men. In fact, the difference between men and women in cumulative survival probabilities grew in magnitude concomitantly with the passage of time.

In the second phase of the analysis, a series of Cox proportional hazard models are estimated, which consider the probability, or hazard, of rearrest at time *t* given that failure has not yet occurred (Cox, 1972; Singer & Willett, 2003). Positive coefficients indicate that an individual with this characteristic (or a higher value on a given variable) recidivates more quickly, whereas negative coefficients denote delayed time to failure. Proportional hazard models are ideal for the current analysis as they simultaneously examine both the occurrence and the timing of recidivism (Cox, 1972; Singer & Willett, 2003). In addition, hazard models account for differing release dates by modeling the time interval between release and rearrest. The results of the analyses are represented separately for men and women. In addition, *z* scores were calculated for each of the exogenous variables in the models according to the

Table 2. Cox Proportional Hazard Models Predicting Rearrest for Males and Females

	Males (N = 401)		Females (N = 169)		
	Coefficient	*SE*	Coefficient	*SE*	*Z* Score
Release age	–.04*	.01	–.04*	.01	
Prior arrests	.34*	.09	.45*	.22	
Black	–.05	.12	.10*	.35	–2.88
Drug abuse history	–.02	.23	.13*	.55	
Alcohol abuse history	.11	.16	.04	.17	
Property offense	.03	.16	.25	.37	
Violent offense	.17	.22	–.20	.84	
Employed postrelease	–.57*	.15	–.33	.38	
Parental ties	–.27*	.09	–.50*	.22	
Intimate partner relationship	–.04	.10	–.62*	.25	2.18
Criminal peers	1.51*	.60	–.27	.64	1.98
Model fit					
LR chi-square	51.64**		49.11**		

*$p < .05$. ** $p < .01$ (two-tailed test).

formula presented by Paternoster, Brame, Mazerolle, and Piquero (1998) to better evaluate the differences in the predictive validity of the measures across gender.

Table 2 highlights gender similarities and differences in patterns of recidivism. As expected, younger men and women and offenders with more involved criminal histories failed more quickly on release. The nature of the current offense did not have a significant influence on rearrest patterns. However, we did observe differences by race, as Black females failed more quickly than White females. Race was not a significant predictor of recidivism among males. The *z*-score coefficient noted in Table 2 reports statistically significant differences in the effect of race across gender. Drug abuse also emerged as an important predictor for women. Whereas women with drug use histories failed more quickly, prior drug use did not meaningfully influence men's risk for recidivism. Alcohol abuse was not a significant predictor for men or women.

Next, we examine the relationship between postrelease factors and recidivism. Consistent with the extant research, postrelease employment has a strong negative effect on men's risk for recidivism ($\beta = -.56$), but the employment–rearrest relationship was not significant for women.

Turning to postrelease social ties, men and women who had quality parental relations had delayed time until failure (or recidivism). The results also denote that increases in the quality of intimate partner relations have a statistically significant influence on recidivism risk for women ($\beta = -.62$), suggesting that women with high-quality ties to intimate partners remain arrest-free longer than offenders who had weak or nonexistent ties. However, the quality of intimate partner relations was not significantly associated with men's risk for rearrest, and the z score ($Z = 2.18$) coefficient suggests that intimate partner relationships have a significantly stronger effect for women than for men.

Finally, ties to criminal peers were also an important correlate of recidivism. Men with criminal peers failed more quickly. The criminal peer measure was not significant for the female sample, even though men and women reported similar involvement with delinquent peers. The significant equality of the coefficient test further underscores the unique role of delinquent peers in male recidivism patterns.

Estimating the interaction between relational ties and criminal history. The results of the initial multivariate analyses suggest that criminal history and social relationships can have unique and statistically significant additive effects on rearrest. In the third phase of the analysis, we estimate the interaction between criminal history and social ties to parents and intimate partners. We constructed two interaction terms to examine if the effect of intimate partner relationships and parental ties was conditioned by the number of prior arrests as existing research suggests.

Table 3 displays the estimates from the interaction terms generated in both the male and the female samples. The interaction models displayed for men (Models 1 and 2) suggest that the effect of social ties to parents and intimate partners on recidivism varies by criminal history. The positive coefficient for the interaction presented in Model 1 indicates that prior arrest history moderates the relationship between intimate partner relationships and recidivism, suggesting that a lengthy criminal history attenuates the negative effect of marital relationships on rearrest. The findings suggest that strong bonds to intimate partners may be more of a catalyst for desistance among men with fewer prior criminal convictions. Similarly, the results presented in Model 2 suggest that prior arrests moderate the effect of parental ties on recidivism for men: Positive, strong social ties to family had a larger and significant effect on men with fewer arrests.

Looking at the estimates generated from the female sample shown in Models 3 and 4, the interaction terms are not statistically significant, indicating that intimate partner relationships reduced women's risk of recidivism irrespective of their criminal involvement. The results from the significant

Table 3. Cox Proportional Hazard Models Predicting Recidivism: Estimation of Interaction Effects

	Males				Females			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient	*SE*	Coefficient	*SE*	Coefficient	*SE*	Coefficient	*SE*
Release age	−.05**	.01	−.04**	.01	−.07**	.03	−.07*	.04
Prior arrests	.01	.01	.03**	.01	.12	.09	.06	.07
Black	−.23	.14	−.24	.14	−.38	.52	−.09	.53
Drug abuse history	−.05	.20	−.06	.20	1.55*	.72	1.62*	.76
Alcohol abuse history	.22	.17	.24	.17	−.61	.48	−.76	.50
Property offense	.15	.15	.16	.15	.18	.37	.48	.40
Violent offense	.12	.20	.14	.20	−.24	.84	−.47	.85
Employed postrelease	−.37**	.14	−.42**	.13	−.28	.39	−.39	.38
Parental ties	−.15	.08	−.15	.08	−.33	.26	−.15	.25
Intimate partner relationship	−.04	.09	−.03	.09	−.48*	.24	−.68**	.28
Criminal peers	3.69**	1.42	3.61**	1.41	−1.61	1.54	−1.74	1.57
Interaction terms								
Intimate partner relationship * Prior arrests	.03**	.01			.03	.05		
Parental ties * Prior arrests			.03*	.01			.08	.05
Model fit								
LR chi-square	109.6**		108.91**		35.64**		38.30**	

*p <.05. **p < .01 (two-tailed test).

interactions are displayed in Table 4. To gain further insight into the nature of the interaction term, we calculate the effects of ties to intimate partners and parents across five levels of prior arrests (−2 *SD*, −1 SD, *mean*, +1 *SD*, +2 *SD*).[11] For men with prior arrests at 2 *SD* below the mean—far below the average—quality intimate partner relations significantly delay the timing of rearrest (see Panel A), and the coefficient suggests that the relationship is quite strong. We observed a similar, significant relationship for men with arrest rates at 1 *SD* below the average, although the effect was less substantial. Interestingly, intimate partner ties did not significantly influence risk of

Table 4. Summary of Significant Interaction Terms: Male Sample

	Coefficient	*SE*	Percent Change in Recidivism Risk
Panel A: Effect of intimate partner relations on recidivism across levels of prior arrests			
−2 *SD* below the mean	−.48*	.19	−61.7
−1 *SD* below the mean	−.26*	.12	−29.9
Mean	−.04	.09	*ns*
+1 *SD* above the mean	−.02	.09	*ns*
+2 *SD* above the mean	.20	.20	*ns*
Panel B: Effect of parental ties on recidivism across levels of prior arrests			
−2 *SD* below mean	−.44**	.14	−54.9
−1 *SD* below the mean	−.30**	.10	−34.4
Mean	−.15	.24	*ns*
+1 *SD* above the mean	−.01	.09	*ns*
+2 *SD* above the mean	−.15	.08	*ns*

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

rearrest for male offenders with average or above-average arrests (+1 *SD* or +2 *SD*). In other words, these results suggest that positive intimate partner relations can impede recidivism, but in our analysis, the effect is only significant among men who had below-average involvement in criminal behavior.

Similarly, the estimates in Panel B convey the degree to which the effect of quality parental relations on recidivism risk is conditioned by arrest records. Among men whose history of arrests falls 2 *SD* below the sample mean, a unit increase in the quality of parental relations reduces their risk for recidivism by nearly 55%. Among men whose arrest record is 1 *SD* below the mean—slightly below the average—a similar increase in good-quality parental relations reduces their risk for recidivism by 34.4%. Conversely, parental relations do not significantly affect recidivism for men with more involved criminal histories (e.g., mean level of arrests up through +2 *SD*).

Summary and Conclusion

A great deal of work on prisoner reentry has been amassed, resulting largely from the unprecedented rise in incarcerated individuals over the past three decades. However, most of the empirical knowledge of reentry has been derived from studies using all-male or sole-gender samples of the correctional population. The goal of the current study was to examine whether the known correlates of recidivism have a differential effect across gender.

Consistent with the emerging body of research suggesting that one's past involvement in crime may condition the effect of one's social relationships on offending, we examined whether the effects of postrelease social ties are moderated by criminal history.

The results confirm both the direct and the conditional nature of social ties on recidivism. Women who were immersed in a good-quality relationship with an intimate partner or had strong ties with their parents had a lower risk for recidivism; moreover, the nature of this relationship was not significantly affected by prior criminal history. Conversely, for the male sample, intimate partner relations and ties to parents only reduced chances of recidivism for those who had below-average levels of arrests. Negative social relationships with peers also influenced recidivism, as men with ties to criminal peers were more likely to fail. Although men and women reported similar levels of delinquent peer involvement, the measure was not significant in the female-only model, and the *z*-score contrast indicates that the negative effect of peers on recidivism significantly varies by gender.

These findings have important implications for theory as they reinforce the importance of quality familial and intimate partner relationships in successful reentry. The contingent nature of intimate partner and parental ties among male offenders is also consistent with existing research, suggesting that as men become increasingly embedded in criminal behavior, the implications of prosocial opportunities for their life trajectories often become less salient (McCarthy & Hagan, 2001). These findings, therefore, may also reflect a reduced desire among male offenders to maintain parental relationships or to enter into intimate partner relationships. Marriage, and the importance of positive prosocial relationships, is often less central to males deeply involved in crime (Anderson, 1989; Bennett, Bloom, & Craig, 1989; South, 1993; Wilson, 1997). However, our results suggest that criminal offending may have a corrosive effect on male parolees' relationships with conventional actors. Under these circumstances, family members may be reluctant to give high-quality support to so-called high-level offenders and may sever the relationship completely (Braman, 2005; Western et al., 2004). Shover's (1996) work, for instance, has shown that men who have persistently engaged in crime over their life span have often eroded numerous opportunities and pushed away sources of social support, and some have even preyed on family and friends who have extended emotional and material assistance.

The findings for the female sample reflect the centrality of familial relationships for women, as we found that family ties served as a protective factor against recidivism. This is consistent with prior studies indicating that females often have strong familial attachment and are typically reluctant to

bring shame on their family (Mullins & Wright, 2003); therefore, they are more responsive to informal, familial social controls (Giordano, Cernkovich, & Rudolph, 2002).

Moreover, research shows that unlike men, most female inmates lived with their children and served as their primary caregivers prior to incarceration (Mumola, 2000). Thus, reunification is often a primary goal for women after their release (Giordano et al., 2002; Richie, 2001). As a result, women often rely heavily on the support of family to maintain relationships with their children (La Vigne et al., 2009; Pollock, 2002), making the parental relationship particularly important for women.

Not only did familial ties significantly affect female recidivism, but our study revealed that prosocial intimate partner relationships reduced the likelihood of re-offending. In some ways, our results are contrary to recent research that has shown that marriage and cohabitation among women can promote offending (Alarid et al., 2000; Griffin & Armstrong, 2003). The fact that our findings—showing that marriage reduces offending—are contrary to those of existing research may reflect measurement differences with regard to the operationalization of marriage and cohabitation. In fact, we measured the quality of the social relationship; therefore, our indicator separates prosocial from antisocial relationships, which might be confounded by dichotomous classifications of intimate partner relationships. Although our findings are contrary to those of some studies, they are consistent with the results of prior studies that have measured the quality of marital and/or intimate partner relationships. For instance, as mentioned earlier, in their study of antisocial behavior from adolescence to adulthood, Simons et al. (2002) found that romantic partnerships had a greater influence on criminal behavior for females than for males. They conclude that involvement with a conventional romantic partner, among others, moderates the likelihood that a woman with a delinquent history would continue criminal behavior into adulthood. Thus, in light of what we have found and given that theory also highlights the importance of measuring the quality and nature of social relationships, we believe that the failure to do so may provide a somewhat limited understanding of the role of marital ties in female reentry.

In addition, it is important to consider the role of race and social context in understanding the desire and opportunities to marry or engage in positive intimate partner relations. Research suggests that national marriage rates for Black women are roughly half of that of White women, even when exposed to similar marriage market conditions (Lichter, McLaughlin, Kephart, & Landry, 1992). This may be more of a function of Black men's than Black women's reluctance to marry, as African American men often anticipate less

improvement from marriage in their peer relationships and their sex lives (Giordano et al., 2009; South, 1993). We did observe strong race effects in the models for women, and this work highlights the importance of continuing research that examines the interaction of race, gender, social relationships, and recidivism.

Also notable is the lack of the conditioning effect of prior arrest history on recidivism in the female models. Although we can only speculate with the data at hand, it may be that other factors apart from criminal history serve to condition the influence of social relationships on reentry outcomes for women. Recent research by Mallik-Kane and Visher (2008) suggests that substance abuse can have particularly negative effects on women's social support networks, more so than for men (see also La Vigne et al., 2009). In their study, 66% of women with a history of substance abuse received support from their family in the immediate period after release, compared with 82% of female offenders who did not report substance abuse. The levels of support for men with and without substance abuse histories were very similar and were higher overall than for similarly situated women (see La Vigne et al., 2009, p. 52). In our data, we observed that drug use had a unique and very strong effect on recidivism for women, and in supplementary analyses, we found that women with substance use histories had weaker parental bonds and ties to intimate partners. The differences are not statistically significant, but the substantive differences suggest that drug use, particularly when measured postrelease, may affect the nature and occurrence of social bonds on release.[12] Overall, women and men face unique circumstances in the postrelease context; therefore, it is important to continue to explore those factors that may affect the relationship between social ties and recidivism.

Moreover, consistent with studies on recidivism, we found that peer relationships influence re-offending. However, we also observed important differences in the way men and women respond to associations with peers involved in crime: Men are more likely to recidivate, whereas women's risk for recidivism is not significantly affected (see Simons et al., 2002). In other words, men's risk for recidivism is strongly related to whether they associate with others who engage in criminal activity. Peer groups are an important factor in explaining gender differences in social relationships. The literature suggests several possibilities with regard to the differences we observed in our data. First, male offenders, unlike females, often rely on deviant peer groups for social support; thus, these relations make prosocial relationships less attractive for men. For example, Anderson (1989) found that inner-city Black youth were reluctant to get married because they were concerned with

the effect that marriage would have on their attachments and relationships with their peer group. Moreover, though this research did not evaluate gang membership, there is evidence that involvement in gangs can alter prosocial relationships outside (Decker, 1996) and inside (Wacquant, 2000) prison and may subsequently increase the odds of recidivism (Huebner, Varano, & Bynum, 2007). Second, research suggests that males are more likely to face intense levels of peer pressure than are females. For example, in their examination of the effect of friendship patterns on delinquency, Giordano et al. (1986) found that boys report higher levels of pressure and conflict within their relationships than girls. They assert that male friendship styles, likely comprising risk-taking activities, may be more "conducive to the kind of group processes that move individual members to the point of collective action" (p. 1194), which amplifies delinquent behavior among boys. On the other hand, girls are less likely to characterize their relationships as pressured, which may inhibit female delinquency. Furthermore, research suggests that in an effort to avoid dangerous neighborhoods, young women are more likely than young men to opt out of participating in peer networks and aspects of "street life' by retreating to their home and small family circle (Cobbina, Miller, & Brunson, 2008), whereas boys relied on peer networks for protection. This may explain why male, and not female, criminal behavior is shaped by peer associations.

From a policy perspective, the results speak to the importance of maintaining strong, quality social ties for both male and female offenders during and after incarceration. Evidence suggests that individuals who maintain contact with their family while they are incarcerated have better postrelease success (Bales & Mears, 2008; Hairston, 1988). Research also shows that programs using family-focused models are more effective in reducing recidivism. For example, La Bodega de la Familia, a strength-based, family-focused method of case management, observed significant reductions in drug use and offenses among male and female participants compared with nonparticipants (Shapiro, 1998). The results also speak to the importance of developing gender-responsive programs and services that acknowledge the differences between male and female offenders to reduce their risk of subsequent offending (Bloom et al., 2003). Ongoing efforts have been made through the Transition From Prison to Community Initiative and other similar projects to ensure that reentry programming reflects the unique needs between and within gender groups (Berman, 2005).

Although the research results are unique, several caveats must be considered. First, the sample was restricted to offenders in one Midwestern state and

may not be indicative of offenders released into other communities. Second, certain measures of pathways to crime and contextual postrelease information were not available and remain an important omission. Specifically, our measure of prior criminal history is a crude measure of criminal propensity. It is likely that including measures such as those used by King et al. (2007) would help better contextualize our understanding of the way in which opportunities for marriage and social relationships are influenced by educational status and drug use, in addition to history of arrests. Ultimately, proxies, of course, are no substitute for true experimental designs; in the future, research should attempt to isolate the extent to which propensity contributes to the relationships uncovered here by using methodological designs that parse selection effects from treatment effects. The third caveat is that even though the current study captures information on the nature and strength of marital and parental relationships, it is difficult to capture the nature of social relationships with discrete measures. Although this is a common limitation in research of this type, future research can improve on this study by using a mixed-method approach to further explore the impact social relationships have on formerly incarcerated offenders.

Fourth, our measures of postprison social conditions are static and hence do not capture the dynamic nature of the postrelease period. For example, we assessed social relationships at the 2-week mark when the LSI-R was administered by parole officers; however, at this time point, the quality of the relationship may have changed, perhaps less conflicted and more supportive than at a later time point, when the stressors of postrelease life may be more fully realized (Zamble & Quinsey, 1997). The measures of postprison social conditions would be stronger indicators of the intended constructs if they were time-varying and thus included data on the quality and nature of the construct across repeated time points in the postrelease period. Similarly, we were not able to capture the residence of the parolee. It is clear that the nature and structure of personal ties may vary according to the household in which the parolee resides (Visher, La Vigne, & Travis, 2004). Furthermore, to best capture women's unique pathways to crime and transitions back to the community, measures of fertility, the presence of children, physical and sexual abuse, economic marginalization, and living arrangements are needed, which were not available to us.

Finally, recent research suggests that genetic markers may be associated with selection into antisocial peer groups (Beaver, Wright, & DeLisi, 2008; Cleveland, Wiebe, & Rowe, 2005; Kendler et al., 2007), aggressive behavior (Wilson, 1975), delinquency (Malone et al., 2004; Rodgers, Buster, & Rowe,

2001), and violent behavior (Guo, Roettger, & Cai, 2008). Other studies document that both genetic propensity and social conditions, together, explain delinquent and criminal behavior (Caspi et al., 2002; Caspi & Moffitt, 1995). Accordingly, we hope that future efforts by scholars will examine the influence of genetics on selection into offending and social relationships. Notwithstanding these limitations, the current study helps illuminate the sources of variation in risk for recidivism among men and women. Overall, two general conclusions can be drawn from the current research. First, we observed important differences in the recidivism patterns of men and women. Second, the research underscores the importance of social relationships for positive reentry transitions. It is clear from these analyses that there is a need for continued gender-specific research that explores how life circumstances affect reentry. Specifically, understanding the contingent nature of the link between social relationships, criminal history, and recidivism will likely pay large dividends for our understanding of prisoner reentry and the development of correctional programming among women and men.

Appendix

Supplementary Information From the Level of Service Inventory–Revised (LSI-R) Scoring Guide

Variable	Description
Parental ties	Coded as a four-item ordinal scale: 0 = *unsatisfactory*, 1 = *relatively unsatisfactory*, 2 = *relatively satisfactory*, and 3 = *highly satisfactory*. According to the LSI-R scoring criterion, a score of 0 is given to relationships that are absent, hostile, punishing, or uncaring; in cases where 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 toward the relationship on the part of either partner, or when there is irregular contact or lack of personal contact; a score of 2 is given to relationships that are mostly rewarding and positive and when there are good attempts at caring and positive influence with regular contact; and a scores of 3 is given to relationships that are highly satisfying, with obvious caring and positive influence, and those in which the offender maintains regular contact.

(continued)

Appendix (continued)

Variable	Description
Intimate partner relationships	Four-level ordinal coding scheme: Relationships are coded as *very unsatisfactory* (0) if they are unpleasant or hostile and include a history of abuse or recent abuse; *relatively unsatisfactory* (1) if there are conflicts or problems with the partner, significant stressors, or ambivalence regarding continuing the relationship and if the relationships include offenders who are single but lonely; *relatively satisfactory* (2) if they are mostly rewarding and caring and include men who are single but wish to become involved in a relationship; and *highly satisfactory* (3) if they are highly satisfying and all partners are effectively able to deal with conflict.

Declaration of Conflicting Interests

The author(s) declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

Notes

1. Using an electronic sorting process, staff from the State DOC placed all parolees released in 2000 in 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 DOC associated with the 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. Although parole officers administered the LSI-R to the respondents, the responses are based on offender's self-reports.
3. The efficacy of the LSI-R has been well documented (Gendreau et al., 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, Cullen, & Latessa, 2009). DOC officials from the state in which the data originate 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 data were collected showed high test–retest reliability from 2001 through 2004.

4. Because of confidentiality reasons and bureaucratic oversight, we were not allowed to access the answers to the open-ended questions from the LSI-R interview.
5. Offenders who were not rearrested were right-censored as of October 20, 2004, the final day in which the release cohorts' arrest records were retrospectively examined.
6. With regard to our measure of race, the category of "Black" includes 15 individuals who identified as Hispanic, Asian, or Native American. Because of the small cell counts, it was not feasible to conduct analyses with separate measures created for the individuals in these three groups. However, we conducted alternate analyses where the 15 Black 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.
7. Violent offenses include robbery, sexual assault, manslaughter, first-degree murder, second-degree murder, and aggravated assault. Property offenses include burglary, theft, auto theft, larceny, and fraud.
8. Common to reentry research of this type, we used static measures of postrelease conditions in our analysis. We acknowledge that recidivism is a time-varying outcome. Relationships with family and intimate partners may change over the release period, and the effects are time dependent, a limitation of this research. We examined the possibility that the findings presented in the analysis may not be generalizeable across time points during the postrelease period. To gain some insight into this possibility, we reestimated 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. The results from the supplementary analyses were very similar to those reported here, with the exception of the property crime measure. At the 6-month time point, property offending was significant, though negative, among women. The coefficient for property crime among the male sample was not substantially changed in the supplementary analysis.
9. 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 on release (see Nelson et al., 1999). Unfortunately, we were not able to gain information on the quality or nature of the employment, including data on wages, job type, or length of job; however, research suggests that even low-wage

employment can have positive implications for older (greater than 27 years of age) adult workers (Uggen, 2000).

10. The LSI-R manual defines friends as "associates, within their environment, with whom one spends leisure time, whose opinions are valued and who provides help when in need."
11. The coefficients for Table 4 assume mean values for all the other variables in the model (Hosmer & Lemeshow, 2000).
12. For women, the average intimate partner score was 1.41 for those with a history of drug abuse and 1.66 for those without a history of drug abuse. Women with a history of drug use had an average parental tie score of 1.40. The average for women without a history of drug abuse was 1.33. For men, the average intimate partner score for those with a history of drug abuse was 1.43, and for those without a history of drug abuse, it was 1.46. The average parental tie score was 1.29 for men with a history of drug abuse and 1.25 for those without.

References

Alarid, L. F., Burton, V. S., & Cullen, F. T. (2000). Gender and crime among felony offenders: Assessing the generality of social control and differential association theories. *Journal of Research in Crime and Delinquency, 37*, 171-199.

Anderson, E. (1990). *Streetwise: Race, class, and change in an urban community*. Chicago, IL: University of Chicago Press.

Anderson, E. (1989). Sex codes and family life among poor inner-city youth. *Annals of the American Academy of Political and Social Science, 501*, 59-78.

Andrews, D. A., & Bonta, J. (2006). *The psychology of criminal conduct* (4th ed.). Newark, NJ: LexisNexis.

Bales, W. D., & Mears, D. P. (2008). Inmate social ties and the transition to society: Does visitation reduce recidivism? *Journal of Research in Crime and Delinquency*, *45*, 287-321.

Bazemore, G., & Erbe, C. (2004). Reintegration and restorative justice: Towards a theory and practice of informal social control and support. In S. Maruna & R. Immarigeon (Eds.), *After crime and punishment: Pathways to offender reintegration* (pp. 27-56). Portland, OR: Willan.

Beaver, K. M., & Wright, J. P. (2005). Biosocial development and delinquent involvement. *Youth Violence and Juvenile Justice, 3*, 168-192.

Bennett, N. G., Bloom, D. E., & Craig, P. H. (1989). The divergence of black and white marriage patterns. *American Journal of Sociology, 95*, 692-722.

Berman, J. (2005). *Women offender transition and reentry: Gender responsive approaches to transitioning women offenders from prison to the community*. Silver Spring, MD: Center for Effective Public Policy.

Bloom, B., Owen, B., & Covington, S. (2003). *Gender-responsive strategies: Research, practice, and guiding principles for women offenders*. Washington, DC: National Institute of Corrections.

Braithwaite, J. (1989). *Crime, shame and reintegration*. Melbourne, Victoria, Australia: Cambridge University Press.

Braman, D. (2005). *Doing time on the outside: Incarceration and family life in urban America*. Ann Arbor: University of Michigan Press.

Cairns, R., & Cairns, B. (1994). *Lifelines and risks: Pathways of youth in our time*. New York, NY: Cambridge University Press.

Caspi, A., McClay, J., Moffit, T. E., Mill, J., Martin, J., Craig, I. W., Taylor, A., & Poulton, R. (2002). Role of genotype in the cycle of violence in maltreated children. *Science, 297*, 851-854.

Chesney-Lind, M. (1997). *The female offender: Girls, women, and crime*. Thousand Oaks, CA: SAGE.

Cleveland, H., Wiebe, R. P., & Rowe, D. C. (2005). Sources of exposure to smoking and drinking friends among adolescents: A behavioral-genetic evaluation. *Journal of Genetic Psychology, 166*, 153-169.

Cobbina, J., Miller, J., & Brunson, R. (2008). Gender, neighborhood danger, and risk avoidance strategies among urban African American youth. *Criminology*, *46*, 501-538.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*, 95-120.

Covington, S. S., & Surrey, J. L. (1997). The relational model of women's psychological development: Implications for substance abuse. In R. W. Wilsnack & S. C. Wilsnack (Eds.), *Gender and alcohol: Individual and social perspectives* (pp. 335-351). New Brunswick, NJ: Rutgers University Press.

Cox., D. R. (1972). Regression models and life tables. *Journal of Royal Statistical Society, Series B, 34*, 187-220.

Daly, K. (1998). Gender, crime, and criminology. In M. Tonry (Ed.), *The handbook of crime and justice* (pp. 85-108). Oxford, England: Oxford University Press.

Decker, S. (1996). *Life in the gang: Family, friends, and violence*. New York, NY: Cambridge University Press.

DeHart, D. D. (2005). *Pathways to prison: Impact of victimization in the lives of incarcerated women*. Washington, DC: National Institute of Justice.

De Li, S., & MacKenzie, D. L. (2002). The gendered effects of adult social bonds on the criminal activities of probationers. *Criminal Justice Review, 28*, 278-298.

De Lisi, M. (2005). *Career criminals in society*. Thousand Oaks, CA: SAGE.

Deschenes, E. P., Owen, B., & Crow, J. (2007). *Recidivism among female prisoners: Secondary analysis of the 1994 BJS recidivism data set, final report*. Washington, DC: National Institute of Justice.

Dowden, C., & Blanchette, K. (2002). An evaluation of the effectiveness of substance abuse programming for female offenders. *International Journal of Offender Therapy and Comparative Criminology, 46*, 220-230.

Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism. What works! *Criminology, 34*, 575-607.

Gilfus, M. E. (1992). From victims to survivors to offenders: Women's routes of entry and immersion into street crime. *Women and Criminal Justice*, *4*, 63-90.

Giordano, P. C., Cernkovich, S. A., & Holland, D. D. (2003). Changes in friendship relations over the life-course: Implications for desistance from crime. *Criminology, 41*, 293-328.

Giordano, P. C., Cernkovich, S. A., & Pugh, M. (1986). Friendships and delinquency. *American Journal of Sociology, 91*, 1170-1202.

Giordano, P. C., Cernkovich, S. A., & Rudolph, J. L. (2002). Gender, crime, and desistance: Toward a theory of cognitive transformation. *American Journal of Sociology, 107*, 990-1064.

Giordano, P. C., Longmore, M. A., Manning, W., & M. J. Northcutt. (2009). Adolescent identities and sexual behavior: An examination of Anderson's player hypothesis. *Social Forces, 87*, 1813-1844.

Griffin, M. L., & Armstrong, G. S. (2003). The effect of local life circumstances on female probationers' offending. *Justice Quarterly, 20*, 213-240.

Guo, G., Roettger, M. E., & Cai, T. (2008). The integration of genetic propensities into social-control models of delinquency and violence among male youths. *American Sociological Review, 73*, 543-568.

Hairston, C. F. (1988). Family ties during imprisonment: Do they influence future criminal activity? *Federal Probation*, *52*, 48-52.

Haynie, D. L. (2001). Delinquent peers revisited: Does network structure matter? *American Journal of Sociology, 4*, 1013-1057.

Holtfreter, K. L., Reisig, M. D., & Morash, M. (2004). Poverty, state capital, and recidivism among women offenders. *Criminology and Public Policy, 3*, 185-208.

Horney, J. D., Osgood, W., & Marshall, I. H. (1995). Criminal careers in the short-term: Intra-individual variability in crime and its relation to local life circumstance. *American Sociological Review*, *60*, 655-673.

Hosmer, D. W. & Lemeshow, S. (2000). *Applied Logistic Regression*, 2nd ed. New York: Wiley and Sons.

Huebner, B. M., DeJong, C., & Cobbina, J. (2010). Women coming home: Long-term patterns of recidivism. *Justice Quarterly, 27*, 255-274.

Huebner, B. M., Varano, S. P., & Bynum, T. S. (2007). Gangs, guns, and drugs: Recidivism among serious offenders. *Criminology & Public Policy, 15*, 437-461.

Kendler, K. S., Jacobson, K. C., & Gardner, C. O., Gillespie, N., Aggen, S. A., & Prescott, C.A. (2007). Creating a social world: A developmental twin study of peer-group deviance. *Archives of General Psychiatry, 64*, 958-965.

King, R. D., Massoglia, M., & MacMillan, R. (2007). The context of marriage and crime: Gender, the propensity to marry, and offending in early adulthood. *Criminology, 45*, 33-65.

Kruttschnitt, C., & Gartner, R. (2003). Women's imprisonment. In M. Tonry (Ed.), *Crime and justice: A review of research* (pp. 55-135). Chicago, IL: University of Chicago Press.

Kurlychek, M. C., Brame, R., & Bushway, S. D. (2006). Scarlet letters and recidivism: Does an old criminal record predict future offending? *Criminology and Public Policy, 5*, 483-504.

Langan, P. A., & Levin, D. J. (2002). *Recidivism of prisoners released in 1994*. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

Laub, J. H., & Sampson, R. J. (2003). *Shared beginnings, divergent lives: Delinquent boys to Age 70*. Cambridge, MA: Harvard University Press.

La Vigne, N., Brooks, L. E., & Shollenberger, T. L. (2009). *Women on the outside: Understanding the experiences of female prisoners returning to Houston, Texas*. Washington, DC: Urban Institute.

La Vigne, N., Visher, C., & Castro, J. (2004). *Chicago prisoners' experiences returning home*. Washington, DC: Urban Institute.

Lichter, D. T., McLaughlin, D. K., Kephart, G., & Landry, D. J. (1992). Race and the retreat from marriage: A shortage of marriageable men? *American Sociological Review, 57*, 781-799.

Mallik-Kane, K., & Visher, C. A. (2008). *Health and prisoner reentry: How physical, mental, and substance abuse conditions shape the process of reintegration*. Washington, DC: Urban Institute.

Malone, S. M., Taylor, J., Marmorstein, N. R., McGue, M., & Iacono, W. G. (2004). Genetic and environmental influences on antisocial behavior and alcohol dependence from adolescence to early adulthood. *Development and Psychopathology, 16*, 943-966.

Maruna, S. (2001). *Making good: How ex-convicts reform and rebuild their lives*. Washington, DC: American Psychological Association.

McCarthy, B., & Hagan, J. (2001). When crime pays: Capital, competence, and criminal success. *Social Forces, 79*, 1035-1059.

McMurray, H. (1993). High risk parolees in transition from institution to community life. *Journal of Offender Rehabilitation*, *19*, 145-161.

Mullins, C., & Wright, R. (2003). Gender, social networks, and residential burglary. *Criminology, 41*, 813-840.

Mumola, C. J. (2000). *Incarcerated parents and their children*. Washington, DC: Bureau of Justice Statistics.

Nelson, M., Deess, P., & Allen, C. (1999). The first month out: Post-Incarceration experiences in New York City. *Vera Institute of Justice*.

Paternoster, R., Brame, R., Mazerolle, P., & Piquero, A. (1998). Using the correct statistical test for the equality of regression coefficients. *Criminology, 36*, 859-866.

Petersilia, J. (2003). *When Prisoners Come Home: Parole and Prisoner Reentry*. New York: Oxford.

Pollock, J. M. (2002). *Women, prison, and crime*. Belmont, CA: Wadsworth.

Richie, B. (2001). Challenges incarcerated women face as they return to their communities: Findings from life history interviews. *Crime & Delinquency, 47*, 368-389.

Rodgers, J. L., Buster, M., & Rowe, D. C. (2001). Genetic and environmental influences on delinquency: DF analysis of NLSY kinship data. *Journal of Quantitative Criminology, 17*, 145-168.

Rowe, D. C., Vazsonyi, A. T., & Flannery, D. J. (1995). Sex differences in crime: Do means and within-sex variations have similar causes? *Journal of Research in Crime and Delinquency, 32*, 84-100.

Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life*. Cambridge, MA: Harvard University Press.

Sampson, R. J., Laub, J. H., & Wimer, C. (2006). Does marriage reduce crime? A counterfactual approach to within individual causal effects. *Criminology, 44*, 465-508.

Shapiro, C. (1998). *LaBodega de la Familia: Reaching out to the forgotten victims of substance abuse*. Washington, DC: U.S. Department of Justice, Bureau of Justice Assistance Bulletin.

Shover, N. (1996). *Great pretenders: Pursuits and careers of persistent thieves*. Boulder, CO: Westview Press.

Simons, R. L., Stewart, E. A., Gordon, L. C., Conger, R. D., & Elder, G. H. (2002). A test of life-course explanations for stability and change in antisocial behavior from adolescence to young adulthood. *Criminology, 40*, 401-434.

Simpson, S. S., & Elis, L. (1995). Doing gender: Sorting out the case and crime conundrum. *Criminology, 33*, 47-82.

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY: Oxford University Press.

Smith, P., Cullen, F. T., & Latessa, E. (2009). Can 14,737 women be wrong? A meta-analysis of the LSI-R and recidivism for female offenders. *Criminology and Public Policy*, *8*, 183-208.

South, S. J. (1993). Racial and ethnic differences in the desire to marry. *Journal of Marriage and the Family, 55*, 357-370.

Spohn, C., & Holleran, D. (2002). The effect of imprisonment on recidivism rates of felony offenders: A focus on drug offenders. *Criminology*, *40*, 329-358.

Steffensmeier, D., & Allan, E. (1996). Gender and crime: Towards a gendered theory of female offending. *Annual Review of Sociology, 22*, 459-487.

Uggen, C. (2000). Work as a turning point in the life course of criminals: A duration model of age, employment, and recidivism. *American Sociological Review, 65*, 529-546.

Uggen, C., & Kruttschnitt, C. (1998). Crime in the breaking: Gender differences in desistance. *Law & Society Review*, *32*, 339-366.

Visher, C., & Courtnery, S. (2006). *Cleveland prisoner's experience returning home*. Washington, DC: Urban Institute.

Visher, C., Knight, C., Chalfin, A., & Roman, J. (2009). *The impact of marital and relationship status on social outcomes for returning prisoners*. Washington, DC: Urban Institute.

Visher, C., La Vigne, N., & Travis, J. (2004). *Returning home: Understanding the challenges of prisoner reentry: Maryland pilot study: Findings from Baltimore*. Washington, DC: Urban Institute.

Vose, B., Cullen, F., & Smith, P. (2008). The empirical status of the Level of Service Inventory. *Federal Probation, 72*, 22-29.

Wacquant, L. (2000). Deadly symbiosis: When ghetto and prison meet and mesh. *Punishment and Society, 3*, 95-134.

Warr, M. (1998). Life-course transitions and desistance from crime. *Criminology*, *36*, 183-216.

Western, B., Lopoo, L. M., & McLanahan, S. (2004). Incarceration and the bonds between parents in fragile families. In M. Patillo, D. F. Weiman, & B. Western (Eds.), *Imprisoning America: The social effects of mass incarceration* (pp. 21-46). New York, NY: Russell Sage Foundation.

Wilson, E. O. (1975). *Sociobiology: The New Sythesis*. Cambridge, MA: Harvard University Press.

Wilson, W. J. (1997). *When work disappears: The world of the new urban poor*. New York, NY: Vintage.

Zamble, E., & Quinsey, V. L. (1997). *The criminal recidivism process*: Cambridge, MA: Cambridge University Press.

Bios

Jennifer E. Cobbina is an assistant professor in the School of Criminal Justice at Michigan State University. Her current research focuses on gender, prisoner reentry, recidivism, and corrections.

Beth M. Huebner is an associate professor in the Department of Criminology and Criminal Justice at the University of Missouri–St. Louis. Her principal research interests include the effect of incarceration on opportunities for marriage and employment, recidivism in youthful offenders, parental incarceration and child outcomes, and the effect of race on parole decisions.

Mark T. Berg is an assistant professor in the School of Public and Environmental Affairs at Indiana University–Purdue University, Indianapolis. His recent research has focused on measurement issues in the context of longitudinal designs, prisoner reentry, and the social sources of violence.