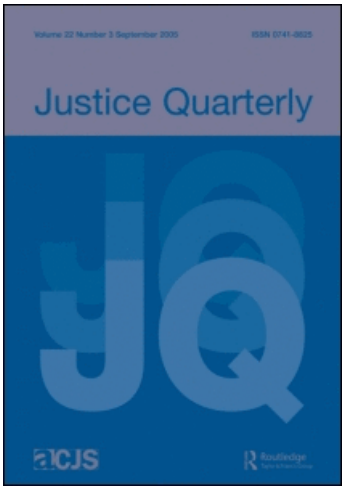

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Women Coming Home: Long-Term Patterns of Recidivism

Beth M. Huebner, Christina DeJong and Jennifer Cobbina

Drawing on recent scholarship on prisoner reentry and gendered pathways to crime, this research explores how social relationships, incarceration experiences, and community context, and the intersection of these factors with race, influence the occurrence and timing of recidivism. Using a large, modern sample of women released from prison, we find that women who are drug dependent, have less education, or have more extensive criminal histories are more likely to fail on parole and to recidivate more quickly during the eight year follow-up period. We also observe racial variation in the effect of education, drug use, and neighborhood concentrated disadvantage on recidivism. This study highlights the importance of an intra-gender, theoretical understanding of recidivism, and has import for policy aimed at female parolees.

Keywords women; recidivism; prisoner reentry; communities

The "imprisonment binge"; (Austin & Irwin, 2001) of the past two decades has had unique effects on the female prison and parolee populations. Driven largely from women's participation in drug use and get-tough correctional policies of the war on drugs (Bloom, Owen, & Covington, 2003; Bush-Baskette, 1999; Chesney-Lind, 2002; Owen, 2006), the imprisonment rate for female inmates has exceeded that of males during the last five years, with a disproportionate

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 of youthful offenders, parental incarceration and child outcomes, and the effect of race on parole decisions. Christina DeJong is an associate professor in the School of Criminal Justice at Michigan State University. Her recent research has focused on the spatial distribution of homicide, violence by and against women, and the effect of gender on police behavior. Jennifer Cobbina is an assistant professor in the School of Criminal Justice at Michigan State University. Her current research interests focus on gender, prisoner re-entry, recidivism, and corrections. Correspondence to: Beth M. Huebner, Department of Criminology and Criminal Justice, University of Missouri-St Louis, 324 Lucas Hall, One University Boulevard, St Louis, MO 63121-4499, USA. E-mail: huebnerb@umsl.edu

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amount of growth occurring among non-white women. In total, women currently represent 12% of the national parolee population (Glaze & Bonczar, 2006) and 7% of the inmate population (Sabol, Couture, & Harrison, 2007), figures that are likely to rise in coming decades.

There is ample evidence to suggest that women face unique challenges while under correctional supervision. In particular, researchers have documented gendered pathways to crime and imprisonment (Belknap, 2007; Bloom et al., 2003; Chesney-Lind, 1997; Daly, 1998; Daly & Chesney-Lind, 1988; Miller & Mullins, 2006; Owen, 1998). Women, like all inmates, do not enter prison as blank slates. Rather, they import histories of economic marginalization, physical and sexual abuse, drug and alcohol addictions, and familial responsibilities that can affect the imprisonment experience and outcomes following release from prison (Kruttschnitt & Gartner, 2005; O'Brien, 2001; Pollock, 2002b; Richie, 2001). While there is a growing, diverse body of literature on female recidivism patterns, most large-scale studies have not incorporated measures of the context of reentry (e.g., post-release drug use, neighborhood disadvantage), which has been shown to affect recidivism (Deschenes, Owen, & Crow, 2007). Further, little quantitative research has explored whether risk factors for criminality exert similar effects on recidivism patterns of white women and women of minority race.

The current research bridges the gaps in the literature in three ways. First, we estimate the long-term likelihood of recidivism among a large, contemporary, and diverse sample of women released from prison. In specific, we examine how a women's pre-incarceration, imprisonment, and post-prison experiences and context affect recidivism. Next, we consider racial variation in recidivism. Drawing on recent qualitative studies of prisoner reentry (Henriques & Manatu-Rupert, 2001; O'Brien, 2001; Richie, 2001), we seek to further explicate the unique challenges that minority women face in the reentry transition by estimating separate recidivism models by race. Finally, we merge eight years of data on recidivism with official department of corrections records and census data to ascertain the predictors of both the occurrence and timing of recidivism.

Women and Recidivism

Most women who are released from prison will have subsequent contact with the criminal justice system. Recent cross-state estimates of recidivism suggest that 58% of incarcerated women are rearrested, 38% are reconvicted, and 30% are returned to prison in the three years following release from prison (Deschenes et al., 2007). There is an emerging body of quantitative literature that has explored the correlates of recidivism among women. In their comprehensive review of the literature, Kruttschnitt and Gartner (2003) summarize the important role that pre-imprisonment, demographic characteristics play in determining parole outcomes for women. Overall, offenders who are younger were incarcerated for a property-related offense, have a substance abuse history, or have a lengthy criminal history are more likely to recidivate (see also

Stuart & Brice-Baker, 2004). Deschenes and colleagues (2007), in their analysis of the 1994 Bureau of Justice Statistics 15 state female release cohort recidivism dataset, revealed similar findings. Using rearrest incidence and timing as a dependent measure, they find that number of prior arrests, age at release, and being African-American are the most important predictors of recidivism in the three years post-release. Although their analysis provides important insight into female patterns of recidivism, they note that the effect of substance abuse, institutional programing, and post-release context were missing from the report (Deschenes et al., 2007:57).

In fact, the omission of contextual and incarceration measures has been raised in recent reviews of the general recidivism literature. As a response, scholars have argued that the study of recidivism would benefit from a broader longitudinal framework that incorporates a whole-life perspective of desistance and offending (Belknap, 2007; Laub & Sampson, 2001; Visher & Travis, 2003). The following review merges the literature on female pathways to crime with the broader work on recidivism with the goal of discerning the constellation of factors associated with post-release behaviors among women, and we examine how racial and class inequalities intersect with gender to influence recidivism (Arnold, 1990; Burgess-Proctor, 2006; Giordano, Cernkovich, & Rudolph, 2002; Hill & Crawford, 1990). We begin with a discussion of gendered pathways to recidivism, followed by a presentation of the role of incarceration, and post-incarceration behaviors on recidivism.

Gendered Pathways

Life course models of offending have been integral to the study of male patterns of recidivism (Laub & Sampson, 2001). The emphasis in this work has been on the role of pro-social institutions, particularly marriage and employment, in redirecting antisocial trajectories into conventional pathways. However, there is substantial evidence to suggest that many women take unique pathways to criminality and imprisonment. For example, victimization, economic marginalization, and substance abuse have been shown to disproportionately affect women and play unique roles in shaping female criminality (Belknap, 2007; Chesney-Lind, 1997; Daly, 1998; Owen, 1998). One of the most salient tenets of feminist criminology is the association, or blurred boundaries, between women's victimization and offending. In fact, most of the qualitative research on women's incarceration and reentry experiences has highlighted the importance of victimization in understanding women's pathways towards criminality (Maidment, 2006; Owen, 1998; Richie, 1996). Studies have shown that many female offenders have experienced physical and sexual abuse (Greenfeld & Snell, 1999), and that victimization as a child and during adulthood is linked to subsequent offending (Daly, 1998; Owen & Bloom, 1995).

Economic disadvantages become the foreground to understanding women's role in offending and challenges on parole. Many women who return from prison

are not employed. A recent multi-state analysis of reentry outcomes suggest that approximately one third of women are employed six months post-release (Mallik-Kane & Visher, 2008). Lack of childcare, discrimination, and conflict with employers have been identified as central to women's reduced employment rate upon release (Golden, 2005; Harm & Phillips, 2001; Richie, 2001; Schram, Koons-Witt, Williams, & McShane, 2006). Moreover, poor inner-city women often travel in isolated, small social circles that preclude them from developing strong social networks that may provide opportunities for employment and social and economic advancement prior to and post-release (Reisig, Holtfreter, & Morash, 2002); thus, making reentry more challenging and recidivism more likely (Holtfreter, Reisig, & Morash, 2004). Although there is evidence that attachment to work can facilitate desistance from criminal behavior among women (Simons, Stewart, Gordon, Conger, & Elder, 2002; Uggen & Kruttschnitt, 1998), these findings have not been replicated with a sample of female parolees.

Substance use is also critical for understanding gendered pathways to crime and recidivism. Many feminist scholars assert that women use drugs to cope with the pain of abuse (Chesney-Lind, 1997; Daly, 1998), and women report high levels of drug use at the time of incarceration (Greenfeld & Snell, 1999). In total, 40% of incarcerated women had used drugs at the time of the offense—a rate higher than that of male offenders. In addition, drug use is one of the most often cited correlates of recidivism (Dowden & Brown, 2002; Harm & Phillips, 2001; Mallik-Kane & Visher, 2008; Uggen & Kruttschnitt, 1998). Not only does drug use have direct effects on recidivism, substance dependency can also affect the quality of social support and employment opportunities upon release from prison. For example, Mallik-Kane and Visher (2008) found that women who entered prison with histories of substance abuse and mental health diagnoses were less likely to be employed or to receive financial, housing, or social support from their extended family upon release from prison, and they were also more likely to be homeless and to recidivate. In addition, Uggen and Thompson (2003) highlight the economic needs created by drug use, as women often turn to the illegal market to fund their drug habits.

Further, women's role in intimate partner relationships often reflects their social-structural place in society, and current research on the role of marriage in understanding criminality and recidivism has been mixed. Most recently, King and colleagues (2007) explored how propensity for marriage, measured using indicators of educational attainment, work history, family structure, and criminal history, affected adult involvement in crime and deviance. Using data from the National Youth Survey, they found that marriage only reduced criminal involvement for women with moderate propensities to marry. Marriage had no deterrent effect for women with low capital (e.g., little educational attainment, inconsistent work histories, and prior criminality) in the marriage pool. King, Massoglia, and Macmillan (2007) hypothesize that women with low probabilities for marriage may have less "conventionalizing potential"; to attract a suitable mate (p. 57). In fact, there is some evidence that marriage and intimate relationships may enhance opportunities for criminality through "negative assortative mating";

(Becker, 1981) or partnering with a mate with greater involvement in criminal behavior (see also Alarid, Burton, & Cullen, 2000; Simons et al., 2002). Work by Griffin and Armstrong (2003) reflects the complexity of the relationship between marriage and criminality. Among a sample of probationers, they found that women who were living with a significant other were less likely to be involved in non-drug crimes while these same relationships enhanced the likelihood of drug-related activities.

On the other hand, there is evidence to suggest that attachment to family and children, separate from an intimate relationship, may have particularly strong, positive effects for women (Alarid et al., 2000; Daly, 1998; Giordano et al., 2002; Sharp, Marcus-Mendoza, Bentley, Simpson, & Love, 1999; Steffensmeier & Allen, 1996). Many scholars have identified childbearing as an impetus for the maturation out of criminal involvement (Enos, 2001; Graham & Bowling, 1996; Hope, Wilder, & Watt, 2003). Children provide high levels of social satisfaction and attachment for women, particularly those living in disadvantaged environments (Edin & Kefalas, 2005; Sharp & Marcus-Mendoza, 2001), and can facilitate the development of a pro-social self image (Giordano et al., 2002). For example, incarcerated women, interviewed by Enos (2001), indicated that their children were an important incentive to desist from crime. In addition, Robbins, Martin, Surratt (In Press) found that, among a sample of drug-involved inmates, women who expected to live with their children post-release were more likely to enter a substance abuse treatment program but were no less likely to recidivate. Incarcerated women and their families remain of particular concern given the majority of incarcerated women have children, and nationally 64% of mothers in state prisons reported living with their children in the month before or just prior to incarceration (Glaze & Maruschak, 2008).

Incarceration Experience

There is evidence that incarceration can have a profound impact on post-release outcomes, and that women's racial and cultural ethnicities shape both the prison (Bosworth & Carrabine, 2001) and reentry experience (Johnson, 2003; Ross & Richards, 2002). The larger body of recidivism research conducted with male and female samples suggests that time served, institutional behavior, and prison programing may have a modest effect on recidivism; yet, researchers are only beginning to examine if the effects are conditional on gender (see Kruttschnitt & Gartner, 2003, p. 52).

Most of the current research on women and incarceration has focused on the deficits of female institutions, correctional programing, and institutional classification. This research suggests that correctional institutions are either managed based on policies developed for male offenders or procedure is couched based on outdated, stereotypic assumptions of female criminality (Belknap, 2007; Bloom et al., 2003; Pollock, 2002b). In terms of treatment and service provision, female correctional institutions have historically not provided

the range of programatic opportunities offered in men's prisons (American Correctional Association, 1990), and available training often were limited to stereotypically feminine occupations (Morash, Bynum, & Koons, 1998).

Similarly, the rise in the "new penology"; (Feeley & Simon, 1992) has driven the development of actuarial prediction tools used for institutional management and release decisions. However, most risk scales are not gender sensitive, have not been validated with female samples, and may over classify female offenders (Bonta, Pang, & Wallace-Capretta, 1995; Hardyman & Van Voorhis, 2004; Reisig, Holtfreter, & Morash, 2006; Van Voorhis & Presser, 2001). For example, Reisig and colleagues (2006), in their assessment of the Level of Supervision Instrument- Revised (LSI-R), found that the instrument over classified a significant proportion of women who were economically disadvantaged and followed gendered pathways to offending. This disparity in assessment is important, given that faulty classification can lead to inappropriate custodial control and may hamper the assignment to appropriate programing (Brennan, 1998). There is evidence that the inclusion of gender-sensitive risk scales may improve the prediction of institutional and post-release behavior, but the use of these instruments and the related empirical tests are still in their infancy (Van Voorhis, Salisbury, Wright, & Bauman, 2006; Wright, Salisbury, & Van Voorhis, 2007).

Reentry Context

The reentry context has also emerged as central to understanding recidivism. In particular, the role of neighborhood levels of concentrated disadvantage has been a focus of recent work as poverty has been associated with a decreased presence and quality of institutions in the community (Sampson, Raudenbush, & Earls, 1997), reduced treatment services, and a decline in labor market opportunities (Sampson, Morenoff, & Gannon-Rowley, 2002; Wilson, 1997). Moreover, Kubrin and Stewart's (2006) examination, conducted with a sample of male and female probationers and parolees, suggests a strong, positive relationship between disadvantage and recidivism; however, recent analyses of male prison release cohorts have not replicated this relationship (Huebner, Varano, & Bynum, 2007; Mears, Wang, Hay, & Bales, 2008) nor has this type of work been conducted with female-only sample of parolees.

Most women, particularly women of color, return to impoverished neighborhoods following release from prison (Dodge & Progrebin, 2001; Owen & Bloom, 1995; Richie, 2001). In fact, Richie (2001) found that African-American women are more likely to report a lack of access to programs and services in their disenfranchised communities. As a result, women of color who return home from prison often report feelings of marginalization within the context of an economically distressed neighborhood, making successful reintegration more difficult.

Consequently, there is emerging evidence to suggest that neighborhood context may indirectly affect women's experience during reentry by diminishing opportunities to develop pro-social relationships. For example, high levels of

disadvantage and joblessness differentially affect women by reducing the pool of marriageable men (Wilson, 1997). In fact, women returning to disadvantaged neighborhoods, especially those characterized by high concentrations of incarcerated men, have fewer opportunities to find a romantic partner with little or no prior criminal involvement than a similarly-situated man (Leverentz, 2006). As a result, many opt-out of the marriage pool altogether (Edin & Kefalas, 2005), further reducing the chances for marriage, employment, and other prosocial activities that have been identified as critical to the reentry experience.

Finally, finding suitable housing is an essential element of reentry success (Petersilia, 2003; Visher & Courtney, 2006). A stable home environment provides social and emotional support and structure that is conducive to positive reentry transitions (Sullivan, Mino, Nelson, & Pope, 2002). However, in a recent multistate study of reentry outcomes, Mallik-Kane and Visher (2008) found that while 56% of women lived with family following release from prison and most had received some sort of financial or social support (e.g., food, transportation), one-quarter of women had not received any tangible support from family.

Data and Measures

The goal of the current analysis is to examine the long-term patterns of recidivism among a large, diverse sample of women released from prison in one state. The total sample includes all 506 women released from prison in 1998, and follow-up data were collected through May 2006. In 1998, the department of corrections managed a total institutional population of approximately 25,000 and supervised 10,000 individuals on parole, with women, comprising 11% (1,124) of the parole and 6% (1,600) of the institutional population. Release and parole revocation decisions are made by a parole board; all offenders in the sample were released prior to the expiration of their sentence and were assigned to a parole caseload.[1]

Data for the study were drawn primarily from official department of corrections records. The state maintains a comprehensive database, which includes data on offender demographic characteristics, risk levels, prison misconduct, service provision, and post-release convictions. In addition, data on neighborhood disadvantage were obtained from the 2000 U.S. Decennial Census.

Dependent Variables

Recidivism, in the current study, is a dichotomous measure and includes women who had subsequent contact with the correctional system following release

1. Although there has been an increase in national rates of expiration release, this form of release is not as prevalent in the study state. In 1998, approximately 8% of males were released at the expiration; this form of release is rare among the female prison population.

from prison. Our measure includes those women who sustained a new conviction for any crime or were returned to prison for any reason during the eight year follow-up period. Overall, 244 women (47%) recidivated during the study period. In total, 116 sustained a new conviction, and 128 were returned to prison for a technical violation.[2] Of the new convictions, 71 (61%) were returned to prison under a mandatory sentence, 31 (27%) were reimprisoned under an indeterminate sentence, and 14 were given probation.[3] Data on time to failure were also collected and reflect the time (in months) between release from prison and the recidivism event.[4] Those who failed averaged 589 days in the community (S.D. = 509 days); 40% of those who recidivated did so during the first year, 47% in the years two and three, and 13% in the remaining years of follow-up. These findings are consistent with recent multi-state analyses of recidivism (Deschenes et al., 2007).

There is substantial debate over the optimal manner in which to measure post-release behavior (Maltz, 1984). We chose a broad measure of recidivism that incorporates criminal incidents that have been substantiated in the courts and serious technical violations that result in a revocation of parole and return to prison. Our use of reconviction comports with studies in this area (Villettaz, Killias, & Zoder, 2006). Including reconviction as part of the recidivism measure reduces some of the bias associated with traditional arrest-based outcomes by filtering out criminal incidents that are not substantiated in the courts. We also incorporate reimprisonment for a technical violation as an element of our recidivism measure. Given that the entire sample was supervised on parole, there is a greater likelihood that serious criminal incidents (e.g., repeated drug involvement) will result in the revocation of parole, and subsequent return to prison, instead of a reconviction. Including only the measure of reconviction may omit cases where a new offense or technical violation resulted in reincarceration but

2. Overall, women in the sample were predominantly reconvicted for property (78%) or drug-related crimes (14%). In reference to technical violations, personal communications with correctional officials in the study state indicate that most offenders returned to prison for a technical violation are reimprisoned for failure to appear at one or more scheduled meetings and are therefore classified as absconders. Moreover, the correctional system in the study state employs a system of graduated sanctions for offenses and provides a variety of treatment and educational services for female offenders; therefore, women are rarely returned to prison for one technical violation. The study state has also enacted a moratorium on prison building, heightening the institutional pressure to supervise offenders in the community. Instead, women are most often reincarcerated for absconding or for multiple violations for drug or alcohol use. As a fidelity check, we conducted a series of statistical analyses for the conviction-only sample and obtained similar results (information on these analyses is available from the author).

3. Individuals given a mandatory sentence must serve 40% to 85% of their sentence before they can be considered for parole, and this type of sentence is reserved for persistent offenders. The average prison term for the reconviction sample is five years.

4. The department of corrections provided data on the date of the *incident* that resulted in return to prison or reconviction. These data better approximate the timing of behavior, instead of reflecting the time needed to process the criminal case or petition for revocation of parole.

not a new conviction. Similarly, including women who have been returned to prison for a technical offense, thereby are no longer at risk for recidivism, could systematically underestimate the risk for recidivism and subsequently bias the proportional hazard models.

Finally, the inclusion of measures of recidivism timing is an important addition. Research has consistently confirmed that the likelihood of failure is not uniform across the post-prison release period (Langan & Levin, 2002; Schmidt & Witte, 1988). However, very little is known about time to failure using a female prison population, as most existing research has been conducted using short-term, dichotomous measures of recidivism. If desistance is to be understood as a process rather than a discrete state (Bushway, Piquero, Broidy, Cauffman, & Mazerolle, 2001; Maruna, 2001), it is equally important to differentiate those offenders who fail in the short and long terms from those who do not fail at all. However, like most work in this area, it is necessary to consider the measurement of recidivism, length of follow-up, and sample composition when making generalizations across studies.

Independent Variables

Demographic Characteristics

Individual-level attributes predicting recidivism risk among women have been well-documented (Kruttschnitt & Gartner, 2003). Consistent with existing research, this analysis includes a number of demographic controls including: age (*in years*), race (*non-white* = 1),[5] and education (*high school graduate* = 1). In addition, we include institutional assessments of the offender's employment history (*stable work history*, no noted employment deficits = 1) and mental health status (*stable mental health* = 1) as assessed by the state department of corrections at the time of intake. Social relationships and fertility are critical to understanding gendered pathways to crime; therefore, the dichotomous

5. The variable "race"; in the original data indicated that 183 women were black, two women were Native American, and 334 women were white. Because the number of Native American women is so small, we have included them in the "black"; category due to their minority status. The department of corrections includes as indicator of ethnicity, but only seven individuals self-identified as Hispanic. These individuals are included in the white category as all of them were designated as being of white race. The racial composition of the study population does not reflect the national profile of women under correctional supervision. In total, 36% of the sample are African-American and 1% indicate Hispanic ethnicity, while, half (51.4%) of the women from the 1994 BJS release data set were of minority race and 15 percent identified themselves as Hispanic (Deschenes et al., 2007). Generalizations from the research findings should be considered in light of differences in the study group.

measures of marriage (*married* = 1)[6] and motherhood (one or more *dependent children* = 1) are also central parts of the analyses. Finally, a composite measure of institutional risk was included. The *salient factor score*, a solely advisory tool used to make parole decisions, includes items designed to measure prior criminal history, social stability (e.g., drug use, age), and institutional behavior. Scores range from 0 to 11 with lower scores indicating higher risk. Further details on the measures used in the analyses can be found in Appendix A.

Criminal History

Most research on recidivism suggests that criminal history and legal classifications of the current offense are central to understanding post-release behavior. As such, two dichotomous characterizations of the most serious current offense were designed and include *property* (incarcerated for burglary, larceny, or malicious destruction of property = 1) and *drug* crimes (incarcerated for drug sales, manufacturing, or trafficking = 1). *Criminal history* represents the number of convictions, for any crime, prior to the current offense. Similarly, *time served* in prison is also a proxy for offense type and criminal history and represents the number of months served in prison prior to release on parole.

Institutional Context

Researchers have hypothesized a strong association between nature of the imprisonment experience, institutional conduct, and post-release outcomes (Maruna & Toch, 2005; Visher & Travis, 2003). In the current analysis, institutional behavior represents the number of *misconduct violations*, for any offense, sustained between entrance to prison and release. In addition, a measure of women's participation in, and completion of, an in-prison work skills or substance abuse treatment program is included. We elected to include a dichotomous measure of *program completion*, in lieu of program participation as many women chose to leave the program or are not able to complete all

6. Marital status was missing for 29.7% of the women in our sample. Rather than remove those values from the data or create dummy variables to indicate missing values both of which produce biased estimates (McKnight, McKnight, Sidani, & Jose Figueredo, 2007), we chose to impute values for those cases using multiple imputation in the SAS software program. The process of multiple imputation uses known values on other variables to impute values for those missing cases (Rubin, 1996). The process creates *N* datasets, each with different estimates for the missing cases. The multivariate analyses (here, logistic regression and survival analysis) are each run *N* times, with the final estimates calculated as the average of the coefficients across the *N* models (McKnight et al., 2007). A similar procedure was followed for drug abuse (12.5% missing) and the intake variables (2.5% missing). Original means before imputation were: marital status, 0.25 (S.D. = 0.43); stable mental health, 0.28 (S.D. = 0.45); stable work history, 0.24 (S.D. = 0.43); drug abuse, 0.21 (S.D. = 0.41).Additional information on this procedure is available form the author.

program requirements (program completion = 1).[7] The high non-completion rate may confound the magnitude of effect for the treatment variable.

Release Setting

Measures of drug use, living situation, and neighborhood characteristics are included as indicators of the immediate post-release circumstances. Parole officers evaluate drug use and dependency approximately 90 days post-release using the Texas Christian University Drug Screen II (Knight, Simpson, & Moyey, 2002). In the current analysis, *drug use* is a dichotomous measure (moderate abuse to severe drug dependence = 1, individual had no indications of abuse or drug dependency = 0).

Researchers also have identified stable housing arrangements as a crucial factor for understanding recidivism (Petersilia, 2003; Visher & Courtnery, 2006). Two dichotomous measures of post-release living arrangements were designed and include women who returned home to *live alone* (women is head of household, children may be present = 1) and those who *lived with an intimate partner* (living with spouse, boyfriend, girlfriend, fiancée, or significant other = 1).[8]

Finally, we assess the effect of community context on parolee recidivism using a measure of *concentrated disadvantage*. The measure was constructed using data on the first post-release address and was geocoded in ArcView and linked to a census tract. We then matched the census tract identifiers with data from the 2000 US Decennial Census. Consistent with research of this type (Sampson et al., 1997), we created a five-item factor score that includes the proportion of individuals who were: on public assistance, below the poverty level, unemployed, black, and living in female-headed households (eigen value 3.52; factor loadings > 0.72).

Analytic Models

The current analysis proceeds in three phases. First, we provide a general descriptive picture of the study sample. Next, a series of logistic models are estimated to ascertain the likelihood of recidivism for the study sample. Finally,

7. Women may not complete correctional programming for a number of reasons. Participants can leave the programs on their own volition; however, failure to complete a program can also be a reflection of the requirements of the correctional institution (e.g., and not the motivation of the offender.

8. This measure includes women who returned home to live with a spouse, boyfriend, girlfriend, fiancée, or significant other. Although, previous research suggests that marriage has empirical and theoretical different implications for the study of recidivism and desistance, we did not observe differences between the two models in preliminary analyses. Similarly, we did not observe significant differences when we separated those individuals who returned home to live with immediate family from women who lived with family or friends. We elected to use the broader measure in this analysis.

survival models are estimated and account for the variation in release and recidivism timing by modeling the time interval between release from prison and reconviction or return to prison. Research that incorporates logistic and survival analyses has become quite common in recent years (e.g., Banks & Gottfredson, 2003; Spohn & Holleran, 2002). This body of research suggests that factors affecting the probability of recidivism may not have the same influence on the timing of recidivism, therefore estimating logistic and survival analyses could increase the accuracy of our conclusions.

In the current analyses, we estimate a series of parametric survival models. Unlike the Cox (1972) estimation technique, which is commonly used for analyses of this type, parametric models assume that the hazard function takes on the shape of a specific distribution (Schmidt & Witte, 1988). We chose to use the lognormal distribution as it fits the recidivism data well, thereby giving us a more accurate estimate of time to failure.[9] In the survival models, coefficients should be considered in reference to the hazard rate, which is an estimate of the probability of recidivism at time *t*, given that the individual has been released and that failure (reconviction or return to prison) has not yet occurred (Singer & Willett, 2003). Therefore, a positive coefficient signifies that an individual with this characteristic (or a higher value on a given variable) recidivated more quickly, while negative coefficients denote delayed time to failure.

Results

Descriptive Statistics

The sample includes primarily young, white women, many of whom entered prison with educational deficits and had experienced joblessness. As presented in Table 1, 36% of the sample is non-white and women averaged 34 years of age at intake, with younger women more likely to fail on parole.[10] In addition, 23%

9. The fit of the model and the appropriateness of the independent measures were assessed prior to estimating the final models. We chose the lognormal model for several reasons. First, both parametric and semi-parametric models (specifically, the Cox Proportional Hazards model) typically result in similar conclusions about the relationships between the independent and dependent variables (Allison, 1984); however, parametric models result in more accurate estimates of the coefficients when the assumed distribution provides a good fit to the data (Klein & Moeschberger, 2005). In addition, there is evidence that parametric methods are better suited to recidivism data (Schmidt & Witte, 1988; p 18). The authors of this article tested all possible distributions of the hazard rate and found the lognormal to provide the best fit. In addition, we found little substantive evidence of multicollinearity among the independent variables. The highest variance inflation factor was 2.03, for the variable "property offense";, related strongly to its dummy counterpart "drug offense"; (VIF=1.90).
10. The study sample is similar to that described in the BJS release cohort (Deschenes et al., 2007); however, there are a few differences that are worthy of mention. As noted, the sample includes less women of minority race. In addition, women in the current sample spent more time in prison prior to release (16 months for study sample, 12 months for the BJS release cohort). Women in the study sample were also more likely to be serving time for a property offense and less likely for a drug related offense (study sample: 52% property, 28% drug, 15% violent; BJS cohort: 37% property, 42% drug, 13% violent).

Table 1 Descriptive **s**tatistics for the **t**otal **s**ample and by **r**ecidivism

	Total sample (n = 519)		*Recidivism (n = 244)*		*No new recidivism (n = 275)*	
	Mean	*S.D.*	*Mean*	*S.D.*	*Mean*	*S.D.*
Demographic characteristics						
Non-White	0.36	0.48	0.37	0.48	0.34	0.48
Age at release*	33.81	8.02	32.98	7.12	34.55	8.70
Dependent children*	0.81	0.41	0.87	0.38	0.76	0.42
Married at intake	0.26	0.44	0.25	0.44	0.26	0.43
Salient factor score*	8.21	1.82	7.93	1.84	8.45	1.77
High school graduate*	0.55	0.50	0.49	0.50	0.60	0.49
Stable mental health*	0.89	0.31	0.86	0.34	0.92	0.27
Stable work history*	0.23	0.43	0.18	0.39	0.28	0.44
Criminal history						
Prior convictions*	0.77	0.42	0.84	0.36	0.70	0.46
Property offense	0.52	0.50	0.57	0.50	0.47	0.50
Drug offense	0.28	0.45	0.27	0.44	0.29	0.45
Time served (months)	16.33	19.12	14.71	17.95	17.77	20.02
Institutional context						
Misconduct violations	5.18	8.90	5.73	9.69	4.71	8.14
Completed program	0.40	0.49	0.40	0.49	0.39	0.49
Release setting						
Drug use*	0.21	0.41	0.32	0.45	0.11	0.36
Live alone	0.31	0.46	0.32	0.47	0.30	0.46
Live with intimate*	0.08	0.27	0.05	0.22	0.10	0.30
Concentrated disadvantage	−0.01	1.00	−0.01	0.93	−0.02	1.05

*Groups are significantly different at $p < 0.05$.

of the sample had a stable work history prior to incarceration, and 45% did not complete high school. Bivariate analyses reveal that women with stable work histories and those with a high school education were less likely to fail on parole. Further, 11% of the sample was identified as having some form of mental health concern, and women who were classified as having a stable mental health history were significantly less likely to recidivate.

In addition, most (81%) of the sample reported having one or more dependent children, and mothers were significantly less likely to fail on parole than women without children. Finally, about one-quarter of the sample was married at the time at intake, but this measure was not statistically significant in the bivariate analysis.

The majority of the women in the sample had at least one prior conviction and was most often serving time for a property-related offense. In total, 52% of the sample was imprisoned for a property crime and 28% for a drug-related crime; bivariate analyses did not reveal significant differences between offense

groups. However, women with prior convictions were significantly more likely to fail during the study period. Women who failed on parole also had significantly lower salient factor scores (e.g., exhibited higher risk) than those who did not recidivate during the study period.

In terms of institutional context, women served, on average, 16 months in prison before release, but the time-served measure did not statistically differentiate between groups. Sample members also averaged five misconduct tickets while incarcerated and 40% of women completed a substance abuse or training program during their prison term, but these measures were not statistically significant between recidivism groups.

Finally, two measures of release setting emerged as significant in the bivariate contrasts. As anticipated, drug use was an important indicator of failure, with 21% of the sample having moderate drug abuse or dependency. An offender's post-release housing situation was also important. In total, 31% of women lived alone when they returned home from prison, 8% lived with an intimate partner, and the remainder lived with family or friends. At the bivariate level, women who lived with an intimate were less likely to recidivate. Conversely, level of neighborhood disadvantage was unrelated to failure.

Multivariate Analysis

Results from the logistic and survival analyses are included in Table 2. Models I and II include the coefficients from the logistic models, and Models III and IV comprise the estimates of the survival analyses. As displayed in Model I, women with prior convictions and lower salient factor scores (higher risk) were more likely to recidivate during the study period.[11] The effect of the prior conviction measure was relatively strong; each prior conviction increased the odds of recidivism by nearly two (odds = 1.88). Younger women were also more likely to recidivate than older women; however, the effect was small. Consistent with the bivariate analyses, program completion did not achieve statistical significance nor did measures of offense type or time served.

In addition, women who completed high school or were identified as having a stable mental health status were less likely to fail on parole, although the effects were only marginally significant. Finally, the measures of dependent children, marital status, race, and employment did not achieve statistical significance in the logistic models. Together, the models explained a modest amount of total variation in the model as evidenced by the Nagelkerke R^2 coefficient of 0.13.

When contextual information is added to the model (Model II), the relationships observed in the base model remained, with the exception of parolee age,

11. The salient factor score includes measures of age, criminal history, drug use, and institutional misconduct which are also a part of the statistical model raising potential concerns for model fit. Tests for multicollinearity were conducted. No variance inflation factor or tolerance scores were high enough to suggest a substantial model bias due to the presence of multicollinearity (VIF < 2.03).

Table 2 Occurrence and timing of recidivism (n = 519)

	Logistic analyses						*Survival analyses*			
	Model I			Model II			Model III		Model IV	
	Coefficient	s.e.	odds	Coefficient	s.e.	odds	Coefficient	s.e.	Coefficient	s.e.
Constant	2.37			1.79			4.70		5.48	
Demographic characteristics										
Non-White	−0.07	0.21		−0.20	0.25		0.03	0.25	0.40	0.27
Age at release	−0.03*	0.01	0.97	−0.02	0.01		0.04**	0.02	0.02	0.02
Dependent children	0.55	0.36		0.65	0.38		−0.58	0.41	−0.66	0.39
Married at intake	−0.13	0.31		0.07	0.29		0.12	0.35	−0.09	0.31
Salient factor score	−0.19**	0.06	0.83	−0.18*	0.06	0.84	0.23***	0.07	0.19**	0.06
High school graduate	−0.36†	0.20	0.70	−0.35†	0.21	0.70	0.44†	0.23	0.32	0.22
Stable mental health	−0.58†	0.32	0.56	−0.60†	0.34	0.55	0.58	0.36	0.50	0.35
Stable work history	−0.23	0.25		−0.17	0.26		0.39	0.29	0.26	0.28
Criminal history										
Prior convictions	0.63**	0.24	1.88	0.57*	0.25	1.77	−0.87**	0.29	−0.74**	0.28
Property offense	0.27	0.26		0.28	0.28		−0.15	0.31	−0.09	0.30
Drug offense	0.16	0.28		0.13	0.30		−0.02	0.34	0.08	0.33
Time served	−0.17	0.13		−0.21	0.17		0.23	0.15	0.44*	0.19
Institutional context										
Misconduct violations				0.01	0.01				−0.04**	0.01
Completed program				0.11	0.22				−0.11	0.24

Table 2 (*Continued*)

	Logistic analyses						*Survival analyses*			
	Model I			Model II			Model III		Model IV	
	Coefficient	s.e.	odds	Coefficient	s.e.	odds	Coefficient	s.e.	Coefficient	s.e.
Release setting										
Drug use				1.16***	0.26	3.19			−1.32***	0.28
Live alone				0.13	0.22				0.08	0.23
Live with intimate				−0.76†	0.40	0.47			0.74†	0.45
Concentrated disadvantage				−0.09	0.12				−0.05	0.13
Model fit:										
Nagelkerke R^2	0.13			0.19						
Log likelihood	−331.70			−316.06			−713.82		−693.67	

†$p < 0.10$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$ (two-tailed test).

which did not maintain statistical significance. Drug abuse also emerged as an important predictor. In particular, women who were diagnosed as drug dependent post-release were over three times (odds = 3.19) as likely to fail upon release from prison. Women who returned home to live with an intimate partner were also less likely to recidivate, although this effect was only marginally significant. Concentrated disadvantage, misconduct violations, and treatment completion did not achieve statistical significance in the logistic models. Finally, the addition of contextual information increases the explained variation in the dependent variable from 0.13 (Model I) to 0.19 (Model II).

Next, the timing of recidivism is considered. As displayed in Model III, and similar to the logistic model, age, salient factor score, and having prior convictions were all significantly related to the timing of failure. The positive coefficient for age and salient factor score in the survival model signify that older women and women with higher salient factor scores (lower risk) had longer times to failure. Conversely, the negative coefficient for the criminal history measure suggests that each prior conviction accelerates parole failure. Consistent with the logistic analyses, having children, marital status, race, work history, and current offense were not related to recidivism timing. Education also approached significance in the survival models as women with high school degrees took longer to fail on parole, but the relationship was relatively weak and did not maintain statistical significance when measures of institutional context and release setting were introduced.

Moving to the contextual models, two important relationships emerged. First, misconduct violations were significantly and negatively associated with recidivism timing, suggesting that women who sustained more misconduct tickets recidivate more quickly. Drug use also remained a strong, negative predictor of recidivism timing. In addition, the inclusion of the contextual variables revealed a positive relationship between time served and the timing of recidivism. This finding suggests that longer prison stays may delay recidivism. Consistent with the logistic models, women who returned home to live with an intimate partner failed less quickly, although the effect is small. Concentrated disadvantage, marital status, and having dependent children also did not achieve statistical significance in either model.

Subgroup Analyses by Race

In the second phase of the research, we conducted subgroup analyses by race that included 334 white offenders and 185 women of color. In addition, *z*-scores were calculated for each of the exogenous predictors in the models according to the formula presented by Paternoster, Brame, Mazerolle and Piquero (1998) to consider significant differences across groups of race.

As displayed in Table 3, the multivariate results suggest similarities and differences in the correlates of recidivism by race. For both white women and women of color, drug use was a strong, positive correlate of recidivism;

Table 3 Race and recidivism

	White women (N = 334)				Non-white women (N = 185)			
	Logistic		Survival		Logistic		Survival	
	Coefficient	*s. e.*	*Coefficient*	*s. e.*	*Coefficient*	*s. e.*	*Coefficient*	*s. e.*
Demographic characteristics								
Age at release	−0.03†	0.02	0.03	0.02	0.01	0.02	−0.01	0.02
Dependent children	0.51	0.46	−0.53	0.47	1.18†	0.69	−0.98	0.60
Married at intake	0.18	0.34	−0.21	0.38	−0.27	0.51	0.22	0.48
Salient factor score	−0.17*	0.08	0.20*	0.09	−0.15	0.10	0.13	0.10
High school graduate	−0.22	0.27	0.21	0.30	−0.74*	0.37	0.71*	0.36
Stable mental health	−0.89*	0.39	0.74†	0.40	0.45	0.77	−0.29	0.69
Stable work history	−0.10	0.33	0.15	0.37	−0.07	0.44	0.18	0.44
Criminal history								
Prior convictions	0.62*	0.30	−0.79*	0.34	0.58	0.53	−0.61	0.53
Property offense	0.29	0.34	−0.10	0.38	0.35	0.53	−0.14	0.48
Drug offense	0.16	0.37	0.22	0.42	0.12	0.56	−0.27	0.52
Time served	−0.21	0.23	0.51*	0.25	−0.21	0.31	0.39	0.30
Institutional context								
Misconduct violations	0.01	0.02	−0.05*	0.02	0.03	0.02	−0.04*	0.02
Completed program	0.35	0.28	−0.30	0.31	−0.18	0.40	0.07	0.37
Release setting								
Drug use	0.85*	0.34	−0.95*	0.37	1.80***	0.46	−1.82***	0.39
Live alone	−0.16	0.27	0.27	0.30	0.61	0.40	−0.09	0.36
Live with intimate	−0.74†	0.44	0.62	0.50	−1.38	1.20	2.04†	1.22
Concentrated disadvantage	0.08	0.16	−0.30	0.18	−0.30†	0.18	0.23	0.17
Model fit:								
Nagelkerke R^2	0.19				0.32			
Log likelihood	−204.91		−440.25		−103.13		−244.08	

†$p < 0.10$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$ (two-tailed test).

however, the magnitude of the effect was much stronger for women of minority race. In fact, drug use increased the odds of failure by six for non-white women compared to 2.34 for white women, and the results of the z-score analysis approached statistical significance (z = 1.60), suggesting that drug dependence may have a stronger effect on recidivism for white than non-white women. In addition, women who were drug dependent failed more quickly, and the z-score contrast for the survival models (z = 1.64) suggests the possibility of unique race effects. Moreover, drug use was also more prevalent among women of minority race, with over one-quarter of non-white women (28%) and 17% of white women

being diagnosed as drug dependent post-release. Finally, minority and white women with histories of misconduct violations failed more quickly, but the difference between groups was not statistically significant.

A number of race-specific effects also emerged. For whites, women with stable mental health histories were significantly less likely to fail. The results of the *z*-score analysis indicates that the differences between groups are not statistically significant ($z = -1.55$), yet signal an association worthy of further exploration. Part of the variation could be attributed to differences in mental health classification by race; 13% of white women were classified as having some form of mental illness while only 7% of women of minority race had a similar diagnosis. This finding should also be considered in light of recent research which has highlighted the underassessment of female parolee's mental health and substance abuse needs (Schram et al., 2006). In addition, white women with lower salient factor scores (higher risk) and more prior convictions were more likely to fail and to recidivate more quickly. For non-white women, obtaining a high school diploma decreased the probability of failure and increased the time until failure, but education was unrelated to the timing of failure.

Neighborhood concentrated disadvantage also approached significance for women of minority race, indicating that non-white women returning to disadvantaged neighborhoods were less likely to fail on parole. In fact, the *z*-score contrast suggests that concentrated disadvantage has a qualitatively different effect on the timing of recidivism ($z = -2.14$) for non-white and white women; the *z*-score contrast for the concentrated disadvantage for the logistic model also approached significance ($z = 1.58$).

This finding is unique given that non-white women returned to substantially more disadvantaged neighborhoods than white women. As displayed in Figure 1,

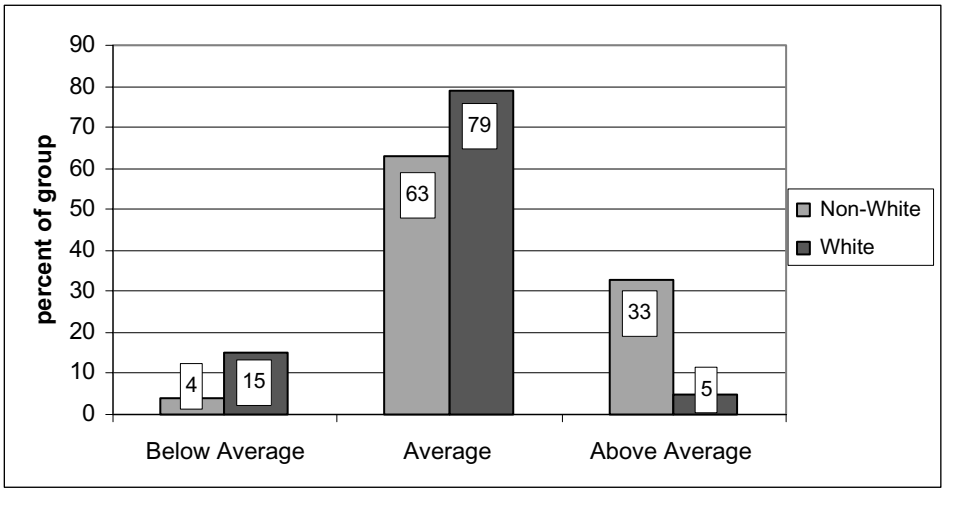

Figure 1 Distribution of Concentrated Disadvantage by Race.

33% of non-white women in the sample returned to neighborhoods characterized by disadvantage levels above the state mean, and 8% lived in census tracts with levels of disadvantage two standard deviations above the mean. In contrast, only 5% of white women in the sample returned to communities with above average levels of disadvantage, and 15% of the sample lived in neighborhoods with levels of disadvantages one or more standard deviations below the mean.

Discussion and Conclusions

Prisoner reentry has garnered substantial attention in the scholarly literature and political landscape, largely brought on by the dramatic rise in imprisonment over the past three decades. The goal of this study was to broaden the study of prisoner reentry by considering the intra-gender risks of recidivism. First, we explore how recidivism is shaped by pre-prison experiences, institutional conditions, and the post-release context. Second, we examine how these experiences are conditioned by race. Overall, we find that women released from prison face substantial challenges in which nearly half (47%) of the women were reconvicted or reincarcerated during the eight year study period with most failures occurring within the first two years of release.

As hypothesized, women who were identified as drug dependent post-release were substantially more likely to fail on parole. Nearly one third of the women in the study sample who recidivated were dependent on drugs following release from prison; these statistics reinforce the scope of the problem of substance abuse problems for correctional populations. Moreover, there is evidence that substance abuse not only affects recidivism, but can also compromise women's employment opportunities, relationships with children, and social support (Maidment, 2006; Mallik-Kane & Visher, 2008). These findings also reflect the linked nature of substance abuse, victimization, and offending for female offenders and highlight the need for multi-modal treatment services that have a foundation in gender-responsive policy (Bloom et al., 2003).

In addition, drug use had a quantitatively stronger effect on the post-release outcomes for non-white women. These findings reinforce the results of Richie's (2001) study of minority women paroled to the inner city. Her work details the stress of balancing the demands of substance abuse treatment, employment, family responsibilities while living in an environment with little access to services or social support (see also O'Brien, 2006). Moreover, conviction of a drug crime, although not significant in the models, can have long-term consequences for social service provision. For example, recent welfare reform acts preclude any felon convicted of a drug-related offense from receiving government benefits for themselves or their families. This act has had a large effect on African-American and Hispanic mothers as they are highly susceptible to poverty and disproportionately represented in the welfare system. In total, 48% of women affected by the ban are black or Hispanic, further complicating successful reintegration for women of minority race (Allard, 2002).

The role of social relationships in understanding post-release outcomes was mixed. The presence of dependent children was not a significant predictor of recidivism in the multivariate models, but was negatively associated with failure in the bivariate analysis. Although there is existing work which suggests that pro-social, familial relationships may have a deterrent effect for women (Alarid et al., 2000; Daly, 1998; Sharp et al., 1999), the findings could reflect the difficulties and stress women face in managing family life while imprisoned (Sharp & Marcus-Mendoza, 2001) and when returned to the community (Richie, 2001). For example, Giordano and colleagues (2002) found that while many women identified children as a catalyst for change, many went on to subsequent, adult arrests and loss of parental rights (see also Robbins et al., in press).

In addition, the empirical support for dependent children as a correlate of desistance, like many social relationships, may vary in terms of the quality of the dyad. There is evidence that *weak* maternal–child relationships, particularly when coupled with other life responsibilities, can put a larger strain on female offenders subsequently increasing the chances of failure (Slocum, Simpson, & Smith, 2005). The lack of effect may be due in part to the negative perceptions of and challenges associated with parenting, particularly given the marginalized social and economic position of the incarcerated sample (Enos, 2001). In addition, national estimates of inmate populations ascertain that approximately 36% of offenders were not primary caregivers of their children (Glaze & Maruschak, 2008); some of these women must confront the difficulties in reestablishing parental rights and many report guilt in the loss of the parental relationship (Golden, 2005). Therefore, our lack of significant findings in this analysis may be a factor of measurement as we include a dichotomous measure of dependent children, but the quality of that bond and an indicator of parental custody may be a more important predictor of recidivism for women.

Although having children was not significant in the multivariate analyses, results from prior studies stress the important role of maintaining strong maternal–child relationships during and immediately following incarceration. In fact, in her recent review of the Transition from Prison to Community Initiative, Berman (2005) argues that women's relationships to children are central to their self-concept; therefore, it is critical to examine the needs of women and their children when designing reentry programing. There is initial evidence to suggest that incorporating family components in transitional programing can positively enhance outcomes. For example, researchers have documented that women who are allowed to live with their children while completing residential treatment are more likely to complete the program (Utziel-Miller, Lyons, Kissiel, & Love, 1998; Wobie, Eyler, Conlon, Clarke, & Behnke, 1997). Correctional officials should continue to be cognizant of the legal challenges facing many women in maintaining parental rights, and be flexible to women's specific needs of managing family responsibility with other obligations (Berman, 2005; Pollock, 2002a). Finally, programing should also be provided for children of incarcerated parents as there is substantial evidence to suggest that maternal imprisonment may have long-term, detrimental effects for children (Murray & Farrington, 2008).

Other measures of social bonds, including marriage or employment history, were not significant in this analysis. The findings for marriage are consistent with recent research which suggests that marital relationships may not have the same protective effect for women as they do men (Griffin & Armstrong, 2003; Leverentz, 2006; Simons et al., 2002). While marriage was not significantly related to recidivism, living with an intimate approached statistical significance in the bivariate and multivariate models. For the total sample and the subgroup analysis by race, living with an intimate served as a protective factor, decreasing the risk of recidivism for white women and delaying recidivism for non-white women. Although it is beyond the scope of the current analysis, it is likely that women who returned to intimate partner relationships following prison had stronger social ties before prison; therefore, our finding may reflect a selection effect as characteristics associated with increased chances of strong social relationships (employment, education, no history of substance abuse) may also negatively affect the chances of recidivism. These findings reinforce the need to study the quality of relationships when examining post-release outcomes.

In addition, education and the institutional risk score were significant predictors in the models. Overall, women with a high school degree were less likely to fail on parole; however, results from the race-specific models suggest that education may be a particularly strong protective factor for women of minority race. Given that many of the African-American women in the sample returned to disadvantaged communities, a high school education may serve as an important link to employment and other avenues of social support. Race specific effects also emerged for the institutional risk measure. In the total sample, women with lower salient factor scores (higher risk) were more likely to fail on parole, but this measure was only significant for white women in the models estimated by race. Although it is beyond the scope of the current study, these findings highlight the potential inadequacy of risk instruments for predicting recidivism among different groups of offenders, particularly for women who take gendered pathways to crime (Reisig et al., 2006).

Moving to measures of institutional context, misconduct was associated with accelerated reentry failure. This finding is consistent with studies of male samples, which suggest that institutional misconduct may be indicative of enduring antisocial behaviors in prison, while lower levels of problem behavior are likely associated with common normative adaptations to the institutional environment (Huebner et al., 2007). However, it is important to develop gender-specific analysis of misconduct as there is evidence to suggest that women commit fewer and less serious misconducts in prison, and they are punished more harshly for these transgressions (McClellan, 1994).

In contrast, we did not observe a relationship between participation in prison-based programs and recidivism. The lack of significance could be due to the nature of prison programing. As noted, most institutional programs implemented for female offenders fail to address their unique needs and do not include the intensity or duration of services needed to affect change (Morash

et al., 1998; Pollock, 2002b). Moreover, we were not able to incorporate measures of aftercare services (e.g., post-release job placement or mental health services), which have been shown to play a critical role in sustaining the positive effects of prison programing on reentry outcomes (Petersilia, 2003).

The findings also highlight the disparate neighborhood conditions of returning white and non-white women. As noted, women of minority race returned to quantitatively different neighborhoods than whites characterized with disproportionate levels of disadvantage. However, the race-specific models suggest that living in a disadvantaged neighborhood delays the time to failure for non-white women, and the differences between groups of race are significant. The racial differences could be attributed to differences in women's responses to the urban, often crime-ridden environment of disadvantaged neighborhoods. Research suggests that women of color respond to disadvantage and crime in the inner city by retreating from community life (Cobbina, Miller, & Brunson, 2008). Further, there is ample research to suggest that gender, race, and social location can affect criminal justice decision-making (Steffensmeier, Kramer, & Streifel, 1993; Steffensmeier, Ulmer, & Kramer, 1998). Future research should explore how neighborhood context may further explain both the differences in offending and the societal responses to women's behaviors.

Despite the unique findings, we must note a few important limitations. First, our analysis is based on data taken from official department of corrections records; therefore, we were not able to obtain data on victimization experiences, post-release marital relationships, and employment for women in the sample. Victimization is an important omission, as it has been highlighted as an important component of women's pathways to offending and has been associated with parole failure (Daly, 1998; Maidment, 2006; Owen, 1998; Richie, 1996). Similarly, measures of the quality and nature of women's social relationships were not available. Although this problem is common in this type of research (Holtfreter et al., 2004), mixed-method research may best describe the intra-individual changes in recidivism while capturing more subtle elements of social relationships and offender change.

Finally, our analysis of race neglects the important and unique experiences of Hispanic women and other women of color. The omission of Hispanic women is particularly important given the growth in the Hispanic population in the USA. In the next decade, the Hispanic origin population is anticipated to be the second-largest racial-ethnic group next to non-Hispanic whites (US Census Bureau, 1996). In addition, the lifetime risk of imprisonment is three times greater for Hispanic women (15 per 1,000) when compared to white women (5 per 1,000); however, African-American women have the highest risk of incarceration in which 36 per 1,000 women will be imprisoned during their lifetime (Bonczar & Beck, 1997).

Despite the limitations of the research, this study represents an important step in understanding women's unique experiences during reentry. Although there have been strides made in the development of gender-specific programing, to date, most comprehensive reviews of the reentry literature has been

based solely on male experiences (National Research Council, 2008). Yet, there is ample theoretical evidence to suggest that gender organizes subsequent opportunities for criminality, and that structural and symbolic features of gender, particularly when combined with race and class, affect the way in which women and men organize their daily lives (Miller & Mullins, 2006). Understanding the unique experiences of women within a longitudinal framework will enhance our theoretical knowledge on reentry and recidivism and help to inform responsive programing for all offenders.

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Appendix A. Description of independent variables

Variable	*Description*
Non-white	A dichotomous variable with 1 = black or native American; 0 = white.
Age at release	Age in years at time of release from prison in 1998.
Dependent children	A dichotomous self-reported measure of the number of dependent children reported at intake (1 = one or more dependent children; 0 = no dependent children).
Married at intake	A dichotomous self-reported measure of marital status (1 = married; 0 = single, divorced, widowed).
Salient factor score	Institutional risk score based on three criteria: Conviction and confinement measures (prior incarceration and convictions and total sentence length), stability (age at first imprisonment, drug and alcohol use, and offending patterns), and performance and behavior measures (failure on community supervision, escape attempt, and prior conviction for burglary). Scores range from 0 to 11; low scores indicate greater risk of failure.
High school graduate	Dichotomous indicator of education measured at intake (1 = completed high school or earned GED prior to incarceration; 0 = did not complete high school or GED program).
Stable mental health	Dichotomous indicator or mental health status at intake (1 = women had stable mental health history or indictors of minimal impairment that did not require treatment; 0 = offender had moderate to severe impairment that required treatment)
Stable work history	Employment history assessed at intake by a correctional official. Offender had a stable work history with good reports from past employers and/or stable involvement in a training program = 1; individual worked sporadically, had poor work skills, and/or refused to work = 0.
Prior convictions	Number of prior convictions, for any crime, prior to the current offense.
Property crime	Dichotomous measure: Most serious crime including burglary, larceny, and malicious destruction of property = 1; most serious crime is not a property offense = 0. Reference category is violent offense.
Drug crime	Dichotomous measure: Most serious crime including possession, use, sales, and trafficking = 1; most serious crime is not a drug offense = 0. Reference category is violent offense.
Time served	Count of total number of days served in prison before release.
Misconduct violations	Count of total misconduct tickets for any offenses received while incarcerated.
Completed program	A dichotomous measure of program completion during incarceration. Individual participated in and completed a substance abuse or employment program during incarceration = 1. Individual did not complete any program = 0.

Appendix A. (*Continued*)

Variable	*Description*
Drug use	Dichotomous measure: Assessment of the Texas Christian University Drug Screen administered approximately 90 days post-release. Individual had moderate abuse to severe drug dependence = 1. Individual had no indications of abuse or drug dependency = 0.
Live alone	Dichotomous measure: Offender's residency situation at the time of release. Parolee returned home to live alone (individual is the head of household, children may be present) = 1; parolee is not living alone = 0. Reference category is living with family (mother, father, sister, brother, uncle/aunt, sibling, cousin).
Live with intimate	Dichotomous measure: Parolee returned home to live with intimate partner (husband, fiancée, or significant other) = 1; parolee is not living with an intimate = 0. Reference category is living with family.
Concentrated disadvantage	Five item factor score (eigen value 3.52; factor loadings > 0.72) measured at the tract level, including: percent of county residents on public assistance; percent below poverty; percent unemployed; percent black; percent living in female headed households.