Article

Crime & Delinquency
2015, Vol. 61(3) 375–401

DOI: 10.1177/0011128711399409
cad.sagepub.com
SAGE

Examining the Effects of Residential Situations and Residential Mobility on Offender Recidivism

Benjamin Steiner,[1] Matthew D. Makarios,[2] and Lawrence F. Travis III[3]

Abstract

Drawing from theories of social control, this study involved an examination of the time-varying effects of six different residential situations and residential mobility on offenders' odds of recidivism during the year immediately following their release from prison. Analyses of data collected on a statewide sample of offenders released under supervision in Ohio generated results favoring a control perspective. Both residential mobility and residential situations such as living with a spouse or parent were relevant for understanding differences among offenders in their odds of recidivism. Stable characteristics of offenders such as gender and prior criminal history were also linked to recidivism.

Keywords

parole, recidivism, offender, social control

[1]University of Nebraska, Omaha
[2]University of Wisconsin–Parkside, Kenosha
[3]University of Cincinnati, OH

Corresponding Author:
Benjamin Steiner, School of Criminology and Criminal Justice, University of Nebraska, Omaha, 6001 Dodge Street, 218 CPACS, Omaha, NE 68182-0149.
Email: bmsteiner@unomaha.edu

Because of their high recidivism rates, offenders released from prisons contribute significantly to crime rates and state prison populations (Blumstein & Beck, 2005; Rosenfeld, Wallman, & Fornango, 2005; Travis & Lawrence, 2002). Understanding the factors that influence offenders' odds of recidivism can guide the development of practical solutions to the problem (e.g., classification instruments and correctional treatment programs) and inform theories of offender behavior (Committee on Community Supervision and Desistance From Crime, 2008; Travis & Visher, 2005).

Empirical findings from longitudinal studies of offending patterns have underscored the importance of continuity and change in individuals' behavior (see, for example, Committee on Community Supervision and Desistance From Crime, 2008; Laub & Sampson, 2003; Sampson & Laub, 1993). Even though studies of offender recidivism are typically restricted to short intervals of time (e.g., 1 year after release), researchers in this area have recognized the contribution of continuity and change and begun to focus on the potential effects of both time-varying life circumstances, such as offenders' employment or relationship status, and time-invariant offender characteristics, such as offenders' prior record (e.g., MacKenzie & De Li, 2002; Uggen, 2000). These few studies to date have provided evidence that short-term changes in offenders' situations or local life circumstances can influence their odds of offending (Horney, Osgood, & Marshall, 1995; MacKenzie & De Li, 2002; McGloin, Sullivan, Piquero, & Pratt, 2007; Sullivan, McGloin, Pratt, & Piquero, 2006). One potentially relevant, and often varying, life circumstance could be offenders' residential situation (i.e., who they live with). Using a statewide sample of offenders released from prison under postrelease supervision in Ohio, we add to the limited research on offender behavior by examining the effects of different residential situations and residential mobility on recidivism, while controlling for other relevant predictors of recidivism. Drawing from theories of social control, we posit that different residential situations and residential mobility coincide with variation in the level of social control present in offenders' lives. Variation in the level of social control can affect offenders' odds of recidivism.

Theoretical Framework

The focus of this study is on recidivism during the year immediately following offenders' release from prison. Although the recidivism process can occur over a longer period of time (see, for example, Maltz, 1984), examination of the factors associated with recidivism during a restricted period of time can still inform our understanding of the recidivism process (Committee on Community Supervision and Desistance From Crime, 2008; Maruna & Toch, 2005). In addition,

large-scale studies of recidivism have determined that most offenders who recidivate do so within the 1st year after their release (e.g., Langan & Levin, 2002), underscoring that this period of offenders' reentry is perhaps the most critical time to understand. Furthermore, determination of the factors that influence offenders' likelihood of recidivism in the short term is of particular relevance to correctional administrators because, in general, they only deal with offenders for a narrow period of time (La Vigne, Thomson, Visher, Kachnowski, & Travis, 2003). In the jurisdiction under examination in this study (Ohio), for example, the majority of offenders are sentenced to postrelease control (PRC; mandatory parole) for 3 years or less. In practice, however, offenders typically serve only 1 to 1.5 years under supervision.[1] Thus, longitudinal studies of offenders who are restricted to short intervals of time can inform theories of offender behavior (e.g., desistance) and provide correctional agencies with practical information regarding factors that reflect continuity (i.e., static factors) and induce change (i.e., dynamic factors) in offender behavior on a more day-to-day basis (see Gendreau, Little, & Goggin, 1996, for a discussion of the practical application of static and dynamic predictors of recidivism).

In this study, we link potential predictors to recidivism using a social control perspective. A control perspective is well suited to studying adult offenders because it recognizes continuity and change in individuals' behavior (Laub & Sampson, 2003; Sampson & Laub, 1993). Continuity is reflected by stable differences between individuals in their propensities to offend (Gottfredson & Hirschi, 1990). In contrast, within-individual changes in exposure to institutions of formal and informal social control often induce turning points that can be the triggering events that influence offenders' odds of recidivism (Laub & Sampson, 2003; Sampson & Laub, 1993). Change can be viewed as a long-term process or in the short term as a response to variations in individuals' situations or local life circumstances (Horney et al., 1995; Laub & Sampson, 2003). In this context, the residential situations and related residential stability of offenders released from prison are life circumstances that are likely to affect the degree of social control over offenders' behavior. We hypothesize that variations in offenders' residential situations and residential mobility influence their odds of recidivism.[2]

Offenders' Residential Situations, Mobility, and Recidivism

The link between offenders' residential situation and offending has been grounded in a social control perspective (Horney et al., 1995; Laub & Sampson, 2003; MacKenzie & De Li, 2002; Sampson & Laub, 1993). For instance, individuals who are married and cohabitating could be less likely to recidivate

because of the direct control of spouses and because marriage can restrict opportunities for recidivism by altering social networks and/or changing daily routines (Horney et al., 1995; Laub & Sampson, 2003; MacKenzie & De Li, 2002; Sampson & Laub, 1993). Compared with individuals who are simply married or living with a boyfriend/girlfriend, individuals who are married and cohabitating may also have a higher level of commitment to their relationship (Holtzworth-Munroe, Smutzler, & Bates, 1997; Stets & Straus, 1989). A greater level commitment to a relationship may influence the quality and level of attachment in the marriage, which can affect offenders' odds of recidivism (Laub, Nagin, & Sampson, 1998; Laub & Sampson, 2003). In support of these ideas, Horney et al. (1995) uncovered that men who were married and cohabitating were less likely to offend, whereas men living with a girlfriend were more likely to offend. Similarly, MacKenzie and De Li (2002) observed that men who were living with their spouse were less likely to commit nondrug crime. In contrast, living with a girlfriend had no effect on this type of offending. Neither living situation had an effect on drug dealing, however.

Sampson and Laub (1993) underscored the importance of family in inhibiting offending during individuals' childhood years. Yet, the potential effects of parents or other relatives have not received much empirical attention within the context of adulthood. This is probably because for most adults relationships with friends and significant others become more important, and familial effects on adult behaviors become less proximate. However, offenders returning from prison are often devoid of social networks and/or ties, and parents and other family members can be (and often are) one of their few available resources that may facilitate successful reentry (Clear, Waring, & Scully, 2005; Visher, Baer, & Naser, 2006; Visher & Courtney, 2007). Living with a parent or other relative may provide indirect control over offenders' behavior because even though the strength of the attachment between parent and child or between family members may weaken during the offender's incarceration, it could also strengthen more quickly than potential attachments between offenders and other prosocial individuals. Parents and other relatives also have a vested interest in seeing their family member succeed, and so they may be willing to assist parole authorities in the supervision (direct control) of the offender. Although it is likely that some offenders' parents are poor and some parents or other relatives exhibit antisocial tendencies themselves, it is also true that even people who are deviant themselves can be good parents and "bad parents" are good parents much of the time (Clear et al., 2005; Uggen, Wakefield, & Western, 2005). In addition, parole authorities often restrict offenders from living with individuals (other than parents and spouses) who are also under supervision or have a criminal history (Glaser, 1969; Petersilia, 2003).

Prosocial ties (such as between an offender and his or her law-abiding relative) can inhibit offending by bringing new resources to the offender and/or altering or expanding social networks (Clear et al., 2005; Uggen et al., 2005). For all these reasons, it is reasonable to expect that offenders who live with their parents or other relatives will be less likely to recidivate.

Parole authorities not only have the power to restrict who offenders live with but also to direct where offenders live. Released offenders can be placed in halfway houses or homeless shelters, or referred to inpatient treatment programs. These referrals or placements can occur as the result of community sanctions for violations of conditions of postrelease supervision or as a part of case-management plans designed to address offenders' reentry needs. Regardless of how offenders are placed in residential programming, involvement in the program can formally control offenders' behavior by structuring their routines, increasing supervision over their behaviors, and limiting opportunities to violate the terms of their release (Petersilia, 2003).

In contrast to offenders who live in the aforementioned residential situations, offenders who are homeless or have absconded are in situations that lack supervision, assistance, and/or prosocial associations. Offenders living in these situational contexts often have fewer ties to conventional others and/or less to lose by deviating from (or further from) supervision. For those offenders in these situations, conformity may be less likely.

Offenders' residential mobility may also influence the level of control over their behavior. The inability to find and maintain stable housing can inhibit the forming of prosocial networks and decrease involvement in conventional activities (Sampson, 1988; Sampson, 1991). Residential instability may also weaken offenders' stake in conformity or attachment to their community (Sampson, 1991; Wooldredge & Thistlethwaite, 2002). Findings from related studies suggest that offenders who move more often are more likely to recidivate (Meredith, Speir, & Johnson, 2007; Visher & Courtney, 2007).

Other Relevant Controls Over Offenders' Behavior

A reliable examination of the effects of different residential situations and residential mobility on recidivism requires consideration of other variables that can be included in a model as statistical controls. These predictors of recidivism might also proxy various aspects of informal control over offenders' behavior. For example, age may be inversely related to recidivism because younger offenders often have fewer conventional relationships and are less likely to be involved in activities reflecting more conformist lifestyles. Studies have revealed support for a negative relationship between age and recidivism (e.g., Gendreau

et al., 1996; Griffin & Armstrong, 2003; MacKenzie, Browning, Skroban, & Smith, 1999; Rosenfeld et al., 2005).

African American offenders (particularly males) may be more likely to recidivate because of the overrepresentation of minority offenders from economically and socially disadvantaged neighborhoods (Rose & Clear, 1998), where feelings of resentment and hostility toward legal authority are pervasive among residents (Anderson, 2001; Sampson & Bartusch, 1998). If African American offenders do not hold much respect for the rules of supervision because they question the legitimacy of those rules, recidivism may be more likely. Evidence regarding the effect of offenders' race, however, is mixed. (see, for example, DeJong, 1997; Gendreau et al., 1996; Griffin & Armstrong, 2003; Huebner, Varano, & Bynum, 2007; MacKenzie & De Li, 2002; Rosenfeld et al., 2005).

Employment might exhibit control over offenders, as they might have more to lose by engaging in deviance (MacKenzie & De Li, 2002; Uggen et al., 2005). Offenders' involvement in employment may also be suggestive of a greater commitment to convention (Hirschi, 1969; Toby, 1957). Employment can also restrict opportunities for deviance and assist offenders in altering existing social networks (Uggen et al., 2005). Empirical findings from related studies suggest that offenders who are employed have lower odds of recidivism (DeJong, 1997; Gendreau et al., 1996; Griffin & Armstrong, 2003; MacKenzie & De Li, 2002; Uggen et al., 2005; Visher & Courtney, 2007).

Also important to consider are indicators of offenders' committing offense and prior criminal history (DeJong, 1997; Gendreau et al., 1996; MacKenzie et al., 1999; MacKenzie & De Li, 2002; Visher & Courtney, 2007). The salience of continuity in offending behavior is well documented (e.g., Laub & Sampson, 2003; Sampson & Laub, 1993), and so offenders who have lengthier criminal histories or more prior violations of release conditions should be more likely to recidivate. Researchers have revealed that offenders convicted of drug or property offenses (as opposed to other offenses) are more likely to recidivate (Langan & Levin, 2002; Rosenfeld et al., 2005; Solomon, Kachnowski, & Bhati, 2005).

Related to the potential importance of offenders' prior criminal history may be offenders' prior associates. Offenders who were previously associated with organized or territorial groups of other offenders (e.g., gangs) may have more difficulty altering their social networks. For example, Anderson (2001) documented the struggles that some offenders have when they return to communities and attempt to negotiate the line between the decent and the street life. For offenders who have ties to antisocial peer groups, the pull of those groups away from convention may make street life and consequently recidivism more likely. In support of these ideas, Huebner et al. (2007) found that offenders who were involved in a gang prior to their incarceration were more likely to recidivate after their release.

Method

The data for this study were collected as a part of a larger project designed to evaluate the effects of a change to the Ohio Department of Rehabilitation and Correction (ODRC) parole-violation sanction policy.[3] The target populations for the larger study included all offenders released on discretionary parole or PRC (mandatory parole) in Ohio during a 3-month period before (October-December, 2003) and after (August-October, 2005) the violation sanction policy was implemented statewide.[4] The larger study revealed that the change to the sanctioning policy had no effect on various measures of offender recidivism (see Martin & Van Dine, 2008), and so the two samples were combined for the purposes of the current study.

Data and Measures

The samples used for the larger study were selected using the same procedures. Offenders were selected from a list of all the offenders released under postrelease supervision in Ohio for the first time in their current case during the periods mentioned above. All of the female offenders on the list were selected to ensure adequate representation. Male offenders were selected randomly with the goal of 95% confidence intervals for parameter estimates. The male sample also included an oversample of 20% to account for unusable cases (e.g., interstate compacts), cases with missing data, and so forth. These procedures resulted in 1,040 and 1,012 offenders for the two samples, respectively, and a combined sample of 2,052 offenders. Sample weights were derived to adjust for the oversampling of female offenders. These weights were normalized for the multivariate analyses.

Information regarding each offender was collected from a number of official sources (e.g., case files), which were cross-referenced against each other to increase the reliability of the data. The data regarding offenders' residential situations were particularly strong because of the nature of parole work (e.g., parole officers are required to track offenders' whereabouts in their field notes) and because officers were required to enter all address changes into a computer database as soon as they became aware of them. Printed documentation of these address changes were commonly found in the offender files. The data were collected by two researchers, and offenders were followed for a full year after their release or, if applicable, until the date they recidivated.

From the sample of 2,052 offenders, cases were removed if they were interstate compact cases ($n = 27$), were offenders released to detainers ($n = 8$), or had missing data on any of the variables of interest ($n = 33$). These procedures reduced the sample used here to 1,984 offenders released under supervision in

Table 1. Descriptive Statistics for Final Study Sample (Weighted) and the Ohio Release Population.

	Study Sample		Ohio Release Population	
Measure	Proportion or *M*	*SD*	Proportion or *M*	*SD*
Age	34.72	(10.32)	34.01	(9.72)
Female	0.09		0.09	
Non-White	0.53		0.52	
Incarcerated for drug offense	0.15		0.14	
Incarcerated for property offense	0.22		0.22	
Discretionary parole	0.28		0.25	
n	1,984		19,757	

Note: All measures are dummy coded except age.

the state of Ohio. Table 1 contains descriptions of the weighted sample and the population of offenders released in Ohio during 2003 and 2005 based on measures that were available electronically. Comparisons between the population parameters and sample statistics reported in Table 1 suggest that the sample was not significantly different from the populations on measures of age, race, gender, or committing offense type.

Recently released offenders are a highly mobile group. Visher and Courtney (2007) found that more than 60% of their sample moved at least once during the year after they were released, and nearly a third of the offenders moved several times. The data analyzed for this study revealed a similar level of mobility. Regardless of the outcome examined, more than half of the offenders moved at least once and a substantial minority (≈27%) moved more than once ($M \approx 2.12$, $SD \approx 1.27$). The need to recognize multiple residential situations within the same offender and attribute the outcome variables to the correct situation required the creation of a longitudinal person–period data set. Specifically, months were nested within offenders, permitting us to assess monthly changes in offenders' residential situations, mobility, and so forth.[5] This was particularly important for the examination of residential situations because it was not uncommon for offenders to live in a residential situation without incident for the majority of the study period but experience problems within a month or two after they had moved to a new situation. Only months that the offenders were living in the community were included in the study.[6]

All the measures included in the final models and the final Level 1 sample sizes are described in Table 2. Important to note is that the descriptions of the

Table 2. Sample Means and Standard Deviations (Unweighted).

Measures	Rearrested	Rearrested for Felony
Outcomes		
Rearrested hazard rate	0.05 (0.22)	—
Rearrested for felony hazard rate	—	0.02 (0.16)
Within-individual predictors		
Lived with spouse	0.05 (0.22)	0.05 (0.22)
Lived with boyfriend/girlfriend	0.08 (0.28)	0.09 (0.28)
Lived with parent	0.35 (0.48)	0.34 (0.47)
Lived with other relative	0.20 (0.40)	0.19 (0.40)
Lived in residential program	0.11 (0.31)	0.11 (0.32)
Homeless or at large	0.05 (0.21)	0.06 (0.23)
Number of prior residences	0.46 (0.80)	0.66 (1.04)
Prior violation	0.28 (0.45)	0.39 (0.49)
n_1	16,626	19,086
Between-individual predictors		
Age	34.83 (10.26)	
Female	0.19 (0.39)	
African American	0.51 (0.50)	
Employed	0.62 (0.48)	
Retired, disabled, or receiving SSI	0.09 (0.28)	
Incarcerated for drug offense	0.16 (0.36)	
Incarcerated for property offense	0.23 (0.42)	
High risk	0.16 (0.37)	
Low risk	0.43 (0.50)	
Gang member	0.14 (0.35)	
Discretionary parole	0.28 (0.45)	
n_2	1,984	

Note: SSI = supplemental security income. All measures are dummy coded except number of prior residences and age.

outcome measures and within-individual measures reported in Table 2 are summary statistics that are based on the number of offenders in the sample who were at risk for each month of the study, rather than simply the number of offenders. Recidivism was measured with two variables, including whether an offender was arrested for a new offense or a violation of their release conditions (*rearrested*) and whether an offender was arrested for a new felony offense (*rearrested for felony*). Both outcome measures were examined because some changes in offenders' residential situations could technically be considered violations of their release conditions and therefore may have been more likely to result in an arrest.

Rearrests were chosen over other measures (e.g., reincarceration) to avoid problems associated with measures that require further procession into the criminal justice system (see Maltz, 1984). Each of the measures of recidivism is technically an official measure and therefore may underestimate the offenders' actual offending behavior (see MacKenzie et al., 1999). Even though official measures of recidivism have been considered a valid indicator of offender behavior (e.g., Farrall, 2005), the limitations of the measures should be kept in mind when interpreting the findings.

In addition to the outcome variables, offenders' residential situations, residential mobility, and one of the control variables were measured within individuals to allow their effects to vary over time (monthly). We examined six different residential situations, including whether an offender *lived with spouse, lived with boyfriend/girlfriend, lived with parent, lived with other relative, lived in residential program*, or was *homeless or at large*.[7] All of the other possible residential situations (e.g., living with a roommate) were pooled and designated as the reference category. Living with a parent was distinguished from living with other relatives because the strength of the attachment between individuals and their parents or spouse is often greater than their attachment to siblings or other relatives (Sampson & Laub, 1993). Thus, the degree of control over offenders who lived in those types of situations was expected to be greater. In addition, and in contrast to other relatives, parole authorities rarely restricted offenders from living with significant others or parents.[8]

Other within-individual measures included *number of prior residences* and *prior violation*. Number of prior residences measures the total number of residential moves an offender accrued prior to the beginning of each month. Prior violation reflects whether an offender had committed a technical violation prior to the beginning of each month.

We also included between-individual predictors measuring each offenders' *age* at the start of supervision, whether they were *female*, *African American*, *employed*, or *retired, disabled, or receiving supplemental security income* (SSI). Employed indicates whether an offender had a period of steady employment during the follow-up period. Although other researchers have measured employment within individuals (e.g., Horney et al., 1995; MacKenzie & De Li, 2002), we were unable to do so here. We observed too much between-officer variability in the quality of their field notes with regard to dates of employment to ascertain whether or when offenders changed or lost their jobs. For example, it was often the case that officers would record that an offender had obtained employment but several months later note that the offender was still searching for work (indicating they had lost their previous job). As such, we chose to error on the side of caution and measure employment between individuals.

Several variables tapping offenders' prior criminal behavior were also included. Specifically, we included whether an offender was *incarcerated for a drug offense* or a *property offense*, classified *high* or *low risk*, as well as whether they were designated a *gang member*. The measures of high and low risk were taken from the ODRC's additive static risk assessment that primarily comprised of indicators of an offenders' prior criminal history and ranks individuals as either high, medium, or low risk. The measure of gang membership was retrieved from ODRC prison records and indicates participation in a security threat group. Similar to Huebner et al.'s (2007) measure of gang membership, the measure used in this study does not indicate whether offenders continued their gang involvement after their release from prison. Finally, we examined whether offenders were released on *discretionary parole* as opposed to mandatory parole (in Ohio, PRC).

Statistical Analysis

As discussed above, the focus on time-varying and time-invariant predictors of recidivism required the creation of a person–period data set, with repeated monthly observations nested within each of the offenders. The dichotomous indicators of recidivism during the monthly observations were examined with discrete time-hazard models. However, the focus on within-individual change raised concerns about the applicability of the traditional discrete time-hazard model (e.g., within-individual changes in offenders' behavior may not be independent of offenders' stable characteristics). These potential problems for the traditional discrete time-hazard model was overcome by incorporating the model within a multilevel estimation method (see Hedeker & Mermelstein, 2011; Osgood, 2010; Raudenbush & Bryk, 2002). The multilevel discrete time-hazard modeling technique (a) facilitated the examination of changes in residential situations and residential mobility for each offender that were observed during the time frame of the study, (b) adjusted for the dependence among multiple observations within the same offender, (c) permitted the hypothesis tests to be based on the appropriate sample sizes (months vs. offenders), and (d) removed (through group-mean centering) between-offender variation from the within-offender observations that might have corresponded with differences in recidivism rates across offenders.[9] Group-mean centering also restricted the Level 1 analyses to within-individual variation, permitting the examination of the effects of within-individual changes on recidivism.[10]

The analysis proceeded in several stages. First, an unconditional model revealed significant variance ($p \leq .05$) in each outcome at Level 1 (within offenders) and Level 2 (between offenders). Next, various specifications of the baseline hazard functions were examined to determine the appropriate

representation for the main effect of time. The Level 1 predictors were then added to the models. Each of these predictors was fixed across all supervision units; however, the Level 1 model intercepts were allowed to vary across supervision units. Consistent with objective (d) from above, the measures of offenders' residential situations were centered on their means for each offender. Finally, the Level 2 predictors were entered, allowing for examination of the main effects of the Level 2 predictors on the Level 1 intercepts.

A potential concern with using bi-level estimation methods with these data involved the limited number of months within some of the offenders (e.g., some offenders were rearrested soon after release). This situation raised concerns about the reliability of the Level 1 intercepts, and so the Empirical Bayes (EB) estimates of Level 1 intercepts were modeled at Level 2 (Raudenbush & Bryk, 2002). As the Level 1 predictors were group-mean centered, these models also included control variables representing the Level 2 means of the Level 1 explanatory variables (e.g., proportion of months living with spouse; Osgood, 2010; Raudenbush & Bryk, 2002).[11]

Findings

Table 2 reveals that the average hazard rates for the two outcomes were .05 (rearrested) and .02 (rearrested for felony), respectively. In other words, offenders typically had a conditional probability of .05 that they were rearrested and a conditional probability of .02 that they were rearrested for a new felony offense during each month of the study period. During the entire year after their release from prison, 44% of these offenders were rearrested, whereas 24% of the offenders were rearrested for a new felony. Examination of the monthly conditional probabilities of the two measures of recidivism (not shown) revealed minimal variability across the 12 months examined here.[12] Examination of preliminary models with a general specification for the time predictors resulted in time coefficients that were nearly identical, suggesting that there was no discernable relationship between time and the odds of recidivism. For these reasons, we constrained the effect of time on recidivism (hazard) to be constant across all the time periods examined in this study. Treating the effect of time as constant across the time periods contributed to a more parsimonious model and generated more stable coefficient estimates of the effects of the predictor variables (Singer & Willett, 2003).

Table 3 contains the bivariate relationships between offenders' residential situations and both measures of recidivism. These analyses are presented in addition to the multivariate analyses because the bivariate relationships permit comparisons between the effects of each residential situation relative to all the

Table 3. Bivariate Relationships Between Offenders' Residential Situations and Recidivism.

	Rearrested	Rearrested for Felony
	β	β
Lived with spouse	−1.00**	−0.48**
	(.17)	(.13)
Lived with boyfriend/girlfriend	0.77**	0.77**
	(.09)	(.07)
Lived with parent	−1.12**	−1.26**
	(.07)	(.06)
Lived with other relative	−0.78**	−0.44**
	(.09)	(.07)
Lived in residential program	−1.35**	−0.98**
	(.08)	(.06)
Homeless or at large	3.28**	1.69**
	(.12)	(.07)

Note: Maximum likelihood coefficients (with standard errors) generated from discrete time-hazard models reported.
**$p \leq .01$.

other situations, as opposed to comparisons between the residential situations and the reference category. Regarding the multivariate analyses, the results from the Level 1 (within individual) models are contained in Table 4, and Table 5 displays the Level 2 (between individual) effects.[13]

Rearrest

The bivariate analyses (Table 3) revealed that offenders who lived with their spouse, a parent, other relative, or in a residential program were at lower risk to be rearrested. Offenders who lived with their boyfriend/girlfriend or were homeless or at large had higher odds of being rearrested.

Turning to the multivariate analysis, the results from the within-individual model (Table 4) revealed that offenders who lived with their spouse, parent, other relative, or in a residential program were less likely to be rearrested. Offenders who lived with their boyfriend/girlfriend or were homeless or at large had a higher likelihood of being rearrested. Offenders who moved more frequently or had a prior violation were also more likely to be arrested. Based on the odds ratios reported in Table 4, compared with the reference category, offenders who lived with their spouse had 43% lower odds of being rearrested. In contrast, in

Table 4. Level 1 Discrete Time-Hazard Models Predicting Recidivism.

	Rearrested		Rearrested for Felony	
	β	e^{β}	β	e^{β}
Constant	–2.04		–2.81	
Lived with spouse	–0.55**	0.57	–0.62**	0.54
	(.17)		(.11)	
Lived with boyfriend/girlfriend	0.60**	1.82	0.27**	1.31
	(.10)		(.06)	
Lived with parent	–0.18*	0.83	–0.85**	0.43
	(.09)		(.06)	
Lived with other relative	–0.33**	0.72	–0.47**	0.62
	(.08)		(.06)	
Lived in residential program	–0.23**	0.79	–0.43**	0.65
	(.09)		(.05)	
Homeless or at large	1.50**	4.48	0.04	1.04
	(.12)		(.06)	
Number of prior residences	1.19**	3.28	1.08**	2.96
	(.03)		(.02)	
Prior violation	0.81**	2.25	0.92**	2.52
	(.05)		(.04)	
n_1	16,626		19,086	
Proportion within-individual variation explained	0.40		0.51	

Note: Maximum likelihood coefficients (with standard errors) and odds ratios reported.
*$p \leq .05$. **$p \leq .01$.

the months offenders lived with their boyfriend or girlfriend, their odds of being rearrested was 82% higher. Compared with the reference category, offenders who lived with a parent had a 17% lower risk of being rearrested, whereas offenders who lived with a relative had 28% lower odds of being rearrested. During the months offenders lived in a residential program, they had a 20% lower risk of being rearrested. Finally, each time an offender moved was associated with a 125% increase in the risk, they were rearrested. The significant predictors in the model accounted for 40% of the within-individual variation in this outcome.

The results of the between-offender model are presented in Table 5. Younger offenders and male offenders were both more likely to be rearrested. Offenders who were employed, retired, disabled, receiving SSI, classified low risk, or released on discretionary parole had a lower rate of rearrest. By contrast,

Table 5. Level 2 Main Effects on Recidivism (Level 1 eb Intercepts as Outcomes).

	Rearrested		Rearrested for Felony	
	γ	*b*	γ	*b*
Intercept	−1.98		−4.15	
Age	−0.03**	−.10	−0.05**	−.11
	(.01)		(.01)	
Female	−0.70**	−.09	−0.91**	−.06
	(.15)		(.30)	
African American	−0.16	−.03	0.05	−.01
	(.12)		(.18)	
Employed	−0.87**	−.14	−1.67**	−.18
	(.13)		(.20)	
Retired, disabled, or receiving SSI	−0.71**	−.07	−1.75**	−.11
	(.23)		(.36)	
Incarcerated for property offense	0.47**	.07	0.58**	.06
	(.14)		(.21)	
Incarcerated for drug offense	0.10	.01	0.15	.01
	(.16)		(.25)	
High risk	0.57**	.07	0.65**	.06
	(.17)		(.25)	
Low risk	−0.89**	−.15	−0.86**	−.10
	(.13)		(.19)	
Gang member	0.57**	.07	0.59*	.05
	(.17)		(.24)	
Discretionary parole	−0.49**	−.07	−0.67**	−.07
	(.14)		(.20)	
n_2	1,984			
Proportion between individual variation explained	0.32		0.29	

Note: SSI = supplemental security income. Unstandardized coefficients (with standard errors) and standardized coefficients reported. Models include controls for mean levels of all the Level 1 predictors.
*$p \leq .05$. **$p \leq .01$.

offenders who were incarcerated for property offenses, classified high risk, or designated a gang member were more likely to be rearrested. Whether offenders were African American or incarcerated for a drug offense had no effect on their rate of rearrest. The significant predictors explained 32% of the between-individual variation in the rate of rearrest.

Rearrest for Felony

The findings from the bivariate analyses (Table 3) were consistent with those from the analyses of rearrest. Offenders who lived with their spouse, a parent, other relative, or in a residential program had lower odds of rearrest for a new felony. Offenders who lived with their boyfriend/girlfriend or were homeless or at large had higher odds of rearrest for a new felony.

The analysis of within-individual effects on rearrest for a new felony (Table 4) revealed that offenders who lived with a spouse, parent, other relative, or in a residential program had a lower probability of rearrest for a new felony. By contrast, offenders who lived with their boyfriend/girlfriend had a higher likelihood of rearrest for a new felony. These results were all consistent with the analysis of rearrest. Unique to this outcome, however, having been homeless or at large had no effect on offenders' likelihood of rearrest for a felony. Consistent with the models of rearrest, offenders who moved more frequently or had a prior violation of their release conditions had higher odds of being rearrested for a new felony. The odds ratios reported in Table 4 suggest that, compared with the reference group, offenders who lived with their spouse had 46% lower odds of being rearrested for a new felony. However, during the months offenders lived with their boyfriend/girlfriend, they had a 31% higher risk of being rearrested for a new felony. Offenders who lived with a parent or lived with a relative had 57% and 38% lower odds of recidivism, respectively. During the months offenders were living in a residential program, their odds of being rearrested for a new felony were 35% lower. Each time an offender moved was associated with a 196% increase in the odds of recidivism. The model explained 51% of the within-individual variation in rearrest for a new felony.

The offender-level analysis of the rate of rearrest for a new felony (Table 4) revealed findings that were completely consistent with those derived from the model of the rate of rearrest. Younger offenders and male offenders were both more likely to be rearrested for a new felony. Offenders who were employed, retired, disabled, receiving SSI, classified low risk, or released on discretionary parole had a lower probability of being rearrested for a new felony. Offenders incarcerated for property offenses, classified as high risk, or designated gang members had higher rates of rearrest for a new felony. Neither race (African American) nor incarcerated for a drug offense had any effect on the rearrest rate for a new felony. Taken together, the relevant predictors explained 29% of the between-individual variation in the rate of rearrest for a new felony.

Discussion and Conclusions

The findings from this study underscore the importance of offenders' residential situations and residential mobility on their likelihood of recidivism. Each of the residential situations that we examined here was related to at least one of the two measures of recidivism. Consistent with our predictions, during the months offenders lived with their spouse, parent, other relative, or in a residential program, they were less likely to recidivate. During the months that offenders lived with a boyfriend/girlfriend or were homeless or at large, they typically had higher odds of recidivism. Offenders who moved more frequently were also more likely to recidivate. These findings are consistent with those derived from other studies that suggest that the situational context or local life circumstances of offenders can affect their likelihood of offending (e.g., Horney et al., 1995; Griffin & Armstrong, 2003).

Taken together, the results from this study are also favorable to a social control perspective and suggest that future studies should examine more direct measures of the concepts that were examined here. For example, we uncovered differences between the effects of living with a spouse versus living with a boyfriend/girlfriend. These findings are consistent with Horney et al.'s (1995) and underscore Sampson and Laub's (1993) discussion regarding the importance of involvement in quality relationships. Specifically, they argued that it is the strength of the attachment to the relationship that affects offenders' likelihood of reoffending (see, for example, Laub et al., 1998; Laub & Sampson, 2003). It may be worthwhile to go beyond comparisons between measures of married and cohabitating versus other cohabitating relationships, and examine more directly the strength of offenders' attachment to their relationship with significant others.

We also observed that offenders who live with a parent or other relative were less likely to recidivate. The effects of parents or other family members on individuals' likelihood of deviance have received considerable attention within the context of juvenile delinquency (see, for example, Sampson & Laub, 1993, for a review of this literature), but the potential effect of parents or other relatives on adult offending has rarely been examined. The dearth of attention to potential parental or other familial effects is probably attributable to the assumption that most individuals leave their parents' home after reaching adulthood. Contact with other relatives may also be less frequent in adulthood, weakening the ties between individuals and these other family members. Within the context of prisoner reentry, however, parents and other relatives are often one of the few resources for released offenders to draw from (Visher & Courtney, 2007). Future studies may want to examine the content and quality

of parental or other familial relationships, to shed light on whether the effect of parents or other relatives on offenders' likelihood of recidivism results from the direct supervision these individuals provide, or whether the attachment between parent or other relatives and offenders becomes stronger when offenders return home to their parents' or other family members' residence.

Future studies may also want to examine more directly the countering influence of supervising officials on offender's self-selection into high-risk residential situations. We speculated that parole officials may restrict offenders from living with individuals, including family members (aside from parents or spouses), who were under supervision or had criminal histories. Our speculations were based on (a) nonsystematic observations made during the collection of the data for this study and (b) department policy that required the release authorities in Ohio to investigate all potential residential situations where offenders may reside on their release. Factors that were considered relevant for restricting offenders from living in a residence include the availability of firearms, criminal records of individuals living in the residence, familial relationships, family members attitudes, and so forth. Pursuant to conditions of release, related factors could be used by Ohio parole officers to deny changes of residence if offenders request to change their residence. Nonsystematic observations made during the collection of the data used for this study suggested that denial of initial placements was quite common. Residence changes were also denied, although to a lesser extent. It is worth mentioning, however, that offenders' self-selection into high-risk residential situations was not always countered by formal control. This seemed especially true in the case of significant others, who in some cases may not have provided the supportive environment that offenders returning to communities often require. An important, and policy relevant, question may be whether or when parole officials should restrict offenders from cohabitating with certain individuals (e.g., family members).

The effects of formal controls on this population were also persistent. During the months that offenders lived in a residential program, they were less likely to recidivate, perhaps because of the formal control the program provided over their behavior. By contrast, individuals who lived in situations devoid of control such as being homeless or at large were more likely to recidivate. Taken together, these findings are consistent with other studies of the effects of formal controls (e.g., Committee on Community Supervision and Desistance From Crime, 2008; MacKenzie & De Li, 2002) and from a more practical perspective, support the use of residential programming for encouraging prosocial behavior among this population.

Aside from the substantive findings concerning offenders' residential situations, we also observed other results that were consistent with much of the prior research on offender recidivism. In support of findings regarding continuity of

offending behavior (see, for example, Laub & Sampson, 2003), we found relatively consistent relationships between our measures of recidivism and offenders' risk level, committing offense type (property), and their prior violation history. We also observed that female offenders, older offenders, and those offenders who were employed during supervision were less likely to recidivate, whereas gang members were more likely to recidivate. These findings reinforce related findings from other recent studies of offender recidivism (see, for example, DeJong, 1997; Gendreau et al., 1996; Griffin & Armstrong, 2003; Huebner et al., 2007; MacKenzie & De Li, 2002; Uggen et al., 2005; Visher & Courtney, 2007).

Interestingly, we did not observe effects for offenders' race. These findings contrast those derived from other studies (e.g., DeJong, 1997; Gendreau et al., 1996; Griffin & Armstrong, 2003; Rosenfeld et al., 2005). The differences in the findings between studies could be due to model specification, as we were able to include a number of predictors that, due to data restrictions, could not be included in some prior studies. Our findings could also be the result of the examination of a statewide sample. Many of the existing studies have examined more restricted samples such as offenders released in a city or county. Recall that we argued that the effects of offenders' race may be linked to the neighborhood in which the offenders are released (see also Rose & Clear, 1998). Although we could not examine this idea directly here, it may very well be that the relationship that has been observed in other studies was attenuated here by the inclusion of offenders who shared similar characteristics but were released in nonurban areas.

From a more practical perspective, our findings reinforce observations regarding the influence of both static and dynamic factors on offenders' likelihood of recidivism (see, for example, Gendreau et al., 1996). Although we discussed these processes within the context of continuity and change, the findings derived from this study can just as easily be interpreted in a more applied context. To be sure, studies that examine the influences of offender recidivism in the short term may be of particular importance to correctional administrators because they often work with offenders for only short intervals of time. Recall that the typical period of supervision in Ohio is less than a year and a half. Findings from studies that examine both time-invariant (static) and time-variant (dynamic) predictors of recidivism can be useful not only for guiding the development of offender assessment tools but also for informing correctional administrators about the factors that are associated with changes in offenders' odds of reoffending during the course of the supervision period. This information could, in turn, be used to inform treatment and supervision strategies designed to reduce recidivism.

Finally, it is worth mentioning some important limitations to this study that should be kept in mind when considering the findings. First, many of the measures included here only proxy some of the concepts that we discussed such as

offenders' attachment to their spouse. Additional studies that include more direct measures of some of these concepts are needed to determine the relevance of the ideas supported in part by these analyses. Future studies may also seek to examine whether residential situations or residential mobility are only proxies for some other factors that affect offenders' odds of recidivism. For instance, it might be important to examine not only the effects of whether offenders live in certain situations or are more mobile but also *why* they choose certain situations or decide to move from one situation to the next. Second, the decision to only follow offenders for 1 year following their release may limit the generalizability of the findings. Although the majority of offenders released in Ohio are only under supervisions for a period of time less than a year and a half, this may not be the case in other jurisdictions, in particular, states with indeterminate sentencing schemes. However, in their national-level study, Langan and Levin (2002) observed that more than 65% of all offenders who were rearrested within a 3-year period were arrested in the 1st year of their release, and so the problem may be less of a concern. Third, the examination of dichotomous indicators of recidivism created a potential problem for the offender-level estimates. Specifically, the estimates derived from the offender-level analyses were potentially influenced by the relative stability of the individual offenders' rates of recidivism. Even though additional analyses indicated that our results were valid, the problem could not be completely overcome. The problem could also be more severe in other data sets with similar structures. Researchers seeking to examine within-individual change in the future may want to proceed with caution when examining outcomes similar to ours. Relatedly, future researchers may want to collect repeated measures of dichotomous indicators of recidivism, so as to permit the estimation of more stable recidivism rates. Finally, it is worth reiterating that the outcome measures and a number of the predictor variables (including offenders' residential situations) were created from information retrieved from official sources. Even though attempts were made to increase the reliability of the measures by cross-referencing the information across multiple sources, the information and timing of information was still potentially subject to some discretionary recording by parole officers. All causal inferences drawn from this study were, in part, dependent on the accuracy of the dates contained within parole officials' records.

The limitations of the study aside, the findings derived from this sample of offenders released under supervision in Ohio offer some important insights regarding offender behavior in the short term, but additional research on this rapidly growing, high-risk population is sorely needed. Only after a number of studies uncover consistent effects on offender recidivism, both in the short- and long term, can parole administrators use this information to derive more

sensible methods for addressing the problem. The relevance of returning offender populations for public safety underscores the importance of examining the influences on offender recidivism for improving supervision strategies classification instruments, and developing of community treatment, not to mention informing our understanding of offender behavior.

Declaration of Conflicting Interests

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

Funding

This project was indirectly supported by award number 2005-IJ-CX-0038 from the National Institute of Justice, Principal Investigators: Ohio Department of Rehabilitation and Correction.

Notes

1. According to Ohio Revised Code (5120:1-1-41), the parole board must order a period of postrelease control (PRC) of 5 years for offenders sentenced for sexual offenses or felony one offenses and 3 years for offenders sentenced for felony two offenses and felony three offenses where the offender caused or threatened to cause physical harm to a person. The parole board may order a period of PRC of up to 3 years for all nonviolent felony three offenses, felony four offenses, and felony five offenses. (In practice, a 1-year period of PRC is typically imposed.) The parole board may also terminate or modify the period of PRC before the supervision period is concluded. For example, during the years 2004 to 2008, the average length of PRC served by offenders in Ohio was about 1.4 years.
2. The model described here does not permit an empirical test of control theory per se because more direct measures of relevant concepts are needed. We chose control theory because it provides a unified framework for studying many of the within- and between-individual predictors found to be relevant in related research (see, for example, Laub & Sampson, 2003). It is worth noting, however, that other theories could be applied because the measures examined here can only proxy informal social controls. For instance, some of our measures could be construed as proxies for various aspects of strain theory (Agnew, 1999, 2001). As an example, offenders who were unemployed could have felt greater strain because they were not earning a legitimate income, possibly increasing their odds of recidivism.
3. The violation sanction policy was designed to structure officers' responses to offenders' violations of the conditions of their release. The primary intent of the policy was to promote consistency in offender treatment and reduce officers' reliance on violation hearings. A more detailed description of the policy can be found in Martin and Van Dine (2008).

4. The state of Ohio has been a determinate-sentencing state since 1996. Although the implementation of sentencing guidelines abolished discretionary parole release, the guidelines still provided for PRC supervision for those offenders who would have previously received parole and discretionary PRC placement for nonviolent offenders. Offenders sentenced before the implementation of the sentencing guidelines, but released during the period of the study, were still released under discretionary parole supervision.
5. In cases where an offender moved during the month, the residential situation where they lived for the majority of the month was used.
6. The number of months at risk differed across offenders because some offenders recidivated (as defined for this study) before the study-end date and also because some offenders were incarcerated for portions of the study period for reasons other than those resulting in their recidivism (as measured for this study). Thus, the number of months modeled at Level 1 reflects the number of "street" months for each offender.
7. This decision to combine all other relatives into the same category was based on (a) the discussion of parole officials restricting offenders from residing with family members (other than parents and spouses) who had a criminal record or were also on supervision and (b) the similarity of bivariate relationships between different measures of familial relationships (e.g., sibling vs. other relative) and the outcomes examined in this study. Although it is often the case that offenders are in violation of their release conditions when they do not maintain a stable residence, a measure reflecting whether an offender was homeless or at large was included in the models as a statistical control, but also for theoretical reasons. The logic behind this decision may be questioned, but violations of release conditions do not always result in formal action (see, for example, McCleary, 1978) and those that do are sometimes handled in the community without an arrest. Even though the majority of offenders who were homeless or at large for extended periods of time were rearrested, we were also interested in the effects of being homeless or at large on other measures of recidivism that were not linked to the behavior of parole officials (e.g., rearrested for a felony). For these reasons, along with the need to control the effect of being homeless or at large on recidivism, we included the measure in all of the models.
8. Ohio Adult Parole Authority policy requires release authorities to investigate all potential residential situations where offenders may reside on their release. Factors that are considered relevant for restricting offenders from living in a residence include the availability of firearms, criminal records of individuals living in the residence, familial relationships, family members attitudes, and so forth. Pursuant to conditions of release, related factors could be used by Ohio parole officers to deny changes of residence if offenders request to change their residence. Information on parole officials' decisions to restrict offenders from living in certain

residential situations was not collected. During the collection of the data for this study, however, we did observe that residency restrictions were a relatively frequent occurrence.

9. It is not uncommon for some types of offenders to self-select into certain residential situations (e.g., younger offenders may have been more likely to live with a parent); however, by group-mean centering the time-varying predictors, any between-offender variation that may have influenced the within-offender effects was removed, permitting estimation of within-offender effects that were independent of between-offender differences (Osgood, 2010; Raudenbush & Bryk, 2002).
10. Estimation of a multilevel discrete time-hazard model also adjusts for problems (e.g., biased standard errors) associated with data that are unbalanced (Hedeker & Mermelstein, 2011; Raudenbush & Bryk, 2002). The data examined in this study were unbalanced for two reasons: (a) offenders who recidivated were censored and (b) the months offenders spent in jail for issues other than those that would constitute the relevant measure of recidivism were not included in the analyses (e.g., detained for an outstanding warrant).
11. Prior studies of within-individual change have examined the number of self-reported behaviors per month (e.g., Horney et al., 1995; Griffin & Armstrong, 2003; MacKenzie & De Li, 2002). The outcomes examined here were dichotomous measures of recidivism, only measured once during the 1-year follow-up period. Although this was not a problem for estimating the time-varying effects (Level 1), this situation did create a potential problem for the offender-level (Level 2) estimates. Specifically, the Level 2 outcome (the recidivism rate) was necessarily influenced by the differences in the number of months offenders were at risk. In hierarchical analyses of dichotomous outcomes, the Level 2 outcome becomes an adjusted rate of the Level 1 outcome. (Technically, the Level 2 intercepts that were generated from these models were not adjusted for the Level 1 effects because the Level 1 predictors were group-mean centered.) For the analyses performed for this study, the numerator of the Level 2 outcome (recidivated, 0 = *no*, 1 = *yes*) was standardized by the number of Level 1 units (months an offender was at risk, 1 to 12). Thus, an offender who was rearrested in the 2nd month after his or her release would have a substantially different value than an offender who was rearrested in the 8th month after his or her release. Although we could not eliminate this problem, we did estimate the models (with the same predictors included) predicting a dichotomous indicator of each outcome. Comparisons across the two analyses revealed no substantive differences in the offender-level effects.
12. For both outcomes, the range of the monthly conditional probabilities of recidivism was less than .02, and most of the monthly conditional probabilities of recidivism fell within .01 of the average conditional probability for the respective measure of recidivism. The only exception was the conditional probability an offender was

rearrested during Month 12 (the study-end date), which was heavily influenced by the density of nonrecidivists. Still, the difference between the highest conditional probability of rearrest and the conditional probability of rearrest for Month 12 was .026, and the difference between the average conditional probability of rearrest and the conditional probability of rearrest during Month 12 was .014.

13. The coefficient estimates contained in Tables 3 and 4 can be interpreted similar to logistic regression coefficients. To facilitate the interpretation of the magnitude of the Level 1 effects, odds ratios are also reported. The Level 2 (offender level) estimates contained in Table 5 can be interpreted in the same way as ordinary least squares estimates. Recall that in multilevel analyses of dichotomous outcomes, the outcome becomes [the] adjusted (to the) rate of the Level 1 outcome (recidivism) at Level 2 (Raudenbush & Bryk, 2002). To gauge the magnitudes of effects, standardized coefficients (β weights) are also reported.

References

Agnew, R. (1999). A general strain theory of community differences in crime rates. *Journal of Research in Crime and Delinquency, 36*, 123-155.

Agnew, R. (2001). Building on the foundations of general strain theory: Specifying the types of strain most likely to lead to crime and delinquency. *Journal of Research in Crime and Delinquency, 38*, 319-361.

Anderson, E. (2001). Going straight: The story of a young inner-city ex-convict. *Punishment & Society, 3*, 135-152.

Blumstein, A., & Beck, A. J. (2005). Reentry as a transient state between liberty and recommitment. In J. Travis & C. Visher (Eds.), *Prisoner reentry and crime in America* (pp. 50-79). New York, NY: Cambridge University Press.

Clear, T., Waring, E., & Scully, K. (2005). Communities and reentry: Concentrated reentry cycling. In J. Travis & C. Visher (Eds.), *Prisoner reentry and crime in America* (pp. 179-208). New York, NY: Cambridge University Press.

Committee on Community Supervision and Desistance From Crime. (2008). *Parole, desistance from crime, and community integration*. Washington, DC: National Academies Press.

DeJong, C. (1997). Survival analysis and specific deterrence: Integrating theoretical and empirical models of recidivism. *Criminology, 35*(4), 561-575.

Farrall, S. (2005). Officially recorded convictions for probationers: The relationship with self-report and supervisory observations. *Legal and Criminological Psychology, 10*, 121-131.

Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works? Criminology, 34(4), 575-607.

Glaser, D. (1969). *The effectiveness of a prison and parole system.* New York, NY: Bobbs-Merrill.

Gottfredson, M., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford University Press.

Griffin, M., & Armstrong, G. (2003). The effect of local life circumstances on female probationers' offending. *Justice Quarterly, 20*, 213-239.

Hedeker, D., & Mermelstein, R. J. (2011). Multilevel analysis of ordinal outcomes related to survival data. In J. J. Hox & J. K. Roberts (Eds.), *Handbook of advanced multilevel analysis* (pp. 115-136). New York, NY: Routledge.

Hirschi, T. (1969). *Causes of delinquency*. Berkeley: University of California Press.

Holtzworth-Munroe, A., Smutzler, N., & Bates, L. (1997). A brief review of the research on husband violence: Part III: Sociodemographic factors, relationship factors, and differing consequences of husband-wife violence. *Aggression and Violent Behavior, 2*, 285-307.

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

Huebner, B. M., Varano, S. P., & Bynum, T. S. (2007). Gangs, guns, and drugs: Recidivism among serious, young offenders. *Criminology & Public Policy, 6*, 187-222.

La Vigne, N. G., Thomson, G. L., Visher, C., Kachnowski, V., & Travis, J. (2003). *A portrait of prisoner reentry in Ohio*. Washington, DC: Urban Institute.

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

Laub, J., Nagin, D., & Sampson, R. (1998). Trajectories of change in criminal offending: Good marriages and the desistance process. *American Sociological Review, 63*, 225-238.

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

MacKenzie, D. L., Browning, K., Skroban, S. B., & Smith, D. A. (1999). The impact of probation on the criminal activities of offenders. *Journal of Research in Crime and Delinquency, 36*, 423-453.

MacKenzie, D. L., & De Li, S. (2002). The impact of formal and informal social controls on the criminal activities of probationers. *Journal of Research in Crime and Delinquency, 36*, 423-453.

Maltz, M. D. (1984). *Recidivism*. Orlando, FL: Academic Press.

Martin, B., & Van Dine, S. (2008). *Examining the impact of Ohio's progressive sanction grid*. Washington, DC: National Institute of Justice.

Maruna, S., & Toch, H. (2005). The impact of imprisonment on the desistance process. In J. Travis & C. Visher (Eds.), Prisoner Reentry and Crime in America (pp. 139-178). New York, NY: Cambridge University Press.

McCleary, R. (1978). *Dangerous men: The sociology of parole.* Beverly Hills, CA: SAGE.

McGloin, J. M., Sullivan, C. J., Piquero, A., & Pratt, T. (2007). Local life circumstances and offending specialization/versatility: Comparing opportunity and propensity models. *Journal of Research in Crime and Delinquency, 44*, 321-346.

Meredith, T., Speir, J. C., & Johnson, S. (2007). Developing and implementing automated risk assessments in parole. *Justice Research and Policy, 9*, 1-24.

Osgood, D. W. (2010). Statistical models of life events and criminal behavior. In A. Piquero & D. Weisburd (Eds.), *Handbook of quantitative criminology* (pp. 375-398). New York, NY: Springer.

Petersilia, J. (2003). *When prisoners come home: Parole and prisoner reentry*. New York, NY: Oxford University Press.

Raudenbush, S., & Bryk, A. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: SAGE.

Rose, D., & Clear, T. (1998). Incarceration, social capital, and crime: Implications for social disorganization theory. *Criminology, 36*, 441-479.

Rosenfeld, R., Wallman, J., & Fornango, R. (2005). The contribution of ex-prisoners to crime rates. In J. Travis & C. Visher (Eds.), *Prisoner reentry and crime in America* (pp. 80-104). New York, NY: Cambridge University Press.

Sampson, R. (1988). Local friendship ties and community attachment in mass society: A multilevel systemic model. *American Sociological Review, 53*, 766-779.

Sampson, R. (1991). Linking the micro- and macro-level dimensions of community social organization. *Social Forces, 70*, 43-64.

Sampson, R., & Bartusch, D. J. (1998). Legal cynicism and (subcultural?) tolerance of deviance: The neighborhood context of racial differences. *Law & Society Review, 32*, 777-804.

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

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

Solomon, A., Kachnowski, V., & Bhati, A. (2005). *Does parole work? Analyzing the impact of postprison supervision on rearrest outcomes.* Washington, DC: Urban Institute.

Stets, J., & Straus, M. (1989). The marriage license as a hitting license: A comparison of assaults in dating, cohabitating, and married couples. *Journal of Marriage and Family, 4*, 161-180.

Sullivan, C. J., McGloin, J. M., Pratt, T., & Piquero, A. (2006). Rethinking the "norm" of offender generality: Investigating specialization in the short-term. *Criminology, 44*, 199-234.

Toby, J. (1957). Social disorganization and stake in conformity: Complementary factors in the predatory behavior of hoodlums. *Journal of Criminal Law and Criminology, 48*, 12-17.

Travis, J., & Lawrence, S. (2002). *Beyond the prison gates: The state of parole in America.* Washington, DC: Urban Institute.

Travis, J., & Visher, C. A. (2005). Introduction: Viewing public safety through the reentry lens. In J. Travis & C. Visher (Eds.), *Prisoner reentry and crime in America* (pp. 1-14). New York, NY: Cambridge University Press.

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., Wakefield, S., & Western, B. (2005). Work and family perspectives on reentry. In J. Travis & C. Visher (Eds.), *Prisoner reentry and crime in America* (pp. 209-243). New York, NY: Cambridge University Press.

Visher, C., Baer, D., & Naser, R. (2006). *Ohio prisoners' reflections on returning home*. Washington, DC: Urban Institute.

Visher, C. A., & Courtney, S. M. E. (2007). *One year out: Experiences of prisoners returning to Cleveland* (Returning Home Policy Brief). Washington, DC: Urban Institute.

Wooldredge, J., & Thistlethwaite, A. (2002). Reconsidering domestic violence recidivism: Conditional effects of legal controls by individual and aggregate levels of stake in conformity. *Journal of Quantitative Criminology, 18*, 45-70.

Author Biographies

Benjamin Steiner is an assistant professor in the School of Criminology and Criminal Justice at the University of Nebraska at Omaha. He holds a PhD from the University of Cincinnati.

Matthew D. Makarios is an assistant professor in the Criminal Justice Department at the University of Wisconsin–Parkside. He holds a PhD from the University of Cincinnati. His research interests focus on evidence-based corrections and life-course criminology. His research has appeared in *Criminal Justice and Behavior* and *Justice Quarterly*.

Lawrence F. Travis III received his PhD in criminal justice from the State University of New York at Albany in 1982. He is a professor of criminal justice at the University of Cincinnati, where he has been employed since 1980. Previously, he served as research director for the Oregon State Board of Parole and as a research analyst for the National Parole Institutes. He is an editor of *Policing: An International Journal of Police Strategies and Management* and has published extensively on a variety of criminal justice topics.