



A Life Course Analysis of Homeless Shelter Use among the Formerly Incarcerated

Brianna Remster

Prior work finds that the formerly incarcerated are at an elevated risk of homelessness. However, studies disagree regarding how these individuals experience homelessness; quantitative research emphasizes homelessness as a temporary obstacle experienced shortly after release, yet ethnographic work suggests that formerly incarcerated individuals experience frequent and/or lengthy bouts and are at risk long after release. Drawing on the life course perspective and nearly eight years of administrative records post release, this study examines patterns and correlates of homeless shelter use in a cohort of individuals released from prison. The results suggest that both immediate and delayed shelter use exist. Although the risk is highest soon after release, approximately half of individuals who used shelters experienced their first spell more than two years after release. Moreover, shelter use spells were prolonged and repeated. Findings also highlight the influence of cumulative disadvantage in understanding who is most at risk for shelter use.

Keywords shelter use; incarceration; reintegration; reentry; homelessness

Introduction

Homelessness among the formerly incarcerated is a growing concern given the rapid expansion of the American penal system over the past four decades. In 1974, there were 210,000 individuals in state and federal correctional facilities

Brianna Remster is an assistant professor of Sociology and Criminology at Villanova University. She studies inequality, formal social control, and crime over the life course. She is currently assessing inequalities in police use of force (with Rory Kramer) and the gendered nature of the incarceration-wage penalty (with Melissa Hodges). Correspondence to: Brianna Remster, Department of Sociology and Criminology, Villanova University, 800 Lancaster Avenue, Villanova, PA 19085, USA. E-mail: brianna.remster@villanova.edu

AQ1

2 REMSTER

(Uggen, Manza, & Thompson, 2006). Today, there are 1.5 million, with nearly 641,000 released annually (Carson, 2016). Despite the dramatic rise in imprisonment rates, little provision has been made for when individuals are released. Traditional methods of reintegration, such as parole, have been reduced rather than expanded making reintegration more difficult for an unprecedented number of individuals (Petersilia, 2003; Travis, 2005). Furthermore, a burgeoning literature documents adverse and far reaching consequences of incarceration across a variety of life domains. For instance, research indicates that incarceration has harmful effects on employment and wages (Pager, 2003; Western, 2002), physical and mental health (Massoglia, 2008a, 2008b; Schnittker & John, 2007; Schnittker, Massoglia, & Uggen, 2012), and family relationships (Comfort, 2007; Massoglia, Remster, & King, 2011; Western & Wildeman, 2009). These unintended consequences further complicate the reintegration process. 5

The present study contributes to this literature by examining an acute indicator of instability: homeless shelter use. Obtaining stable housing is perhaps the most significant obstacle the formerly incarcerated face (Gunnison & Helfgott, 2011; LaVigne, Visher, & Castro, 2004; Lutze, Rosky, & Hamilton, 2014; Petersilia, 2003; Rodriguez & Brown, 2003; Roman & Travis, 2006); further, other reintegration challenges such as gaining employment and continuity of healthcare are difficult to achieve without a fixed residence (Geller & Curtis, 2011; Nelson, Deess, & Allen, 1999). Despite this, relatively little is known about patterns of high residential instability. Research to date suggests that the formerly incarcerated indeed struggle with homelessness. For instance, research finds that individuals with a history of incarceration are more than twice as likely to use homeless shelters as at-risk individuals with no history (Geller & Curtis, 2011). Another study shows that approximately 11% of individuals released in New York rely on homeless shelters (Metraux & Culhane, 2004). Street ethnography chronicles how incarceration both creates and reinforces homelessness among the former incarcerated by "eroding employability, family ties and other defenses against homelessness" (Gowan, 2002, p. 500). Similarly, Geller and Curtis (2011) reveal that shelter stays among individuals who have been incarcerated are partially explained by depressed earnings and public housing restrictions that prevent former felons from (re)joining their families. Taken together, existing research suggests that formerly incarcerated individuals are at risk for homelessness and that other reintegration challenges contribute to this risk. 15 20 25 30 35

However, questions remain concerning the nature of homelessness among the formerly incarcerated. The bulk of existing quantitative work characterizes homelessness as a transitional experience soon after release (Metraux & Culhane, 2004; Petersilia, 2003; Travis, 2005). Yet ethnographic research suggests that individuals may be at risk for homelessness long after release, because it takes time for reintegration challenges to unfold and accumulate, and that some individuals experience repeated and/or prolonged homelessness (Gowan, 2002). Prior quantitative research is limited to a two-year follow up period and no research to date examines how long or how frequently individuals 40 45

are homeless post release. Thus a longer observation period as well as other characteristics of homelessness is needed to more fully understand this key indicator of reintegration.

5 In this study, I draw on life course and reintegration research to examine the nature and correlates of homeless shelter use among formerly incarcerated persons. This approach allows a more nuanced assessment of shelter usage by highlighting (1) how individuals experience homelessness, including the timing, duration, and frequency of spells, (2) incarceration as a potential turning point which may redirect the life course into a negative, downward trajectory exemplified by homelessness, and (3) the role of cumulative disadvantage, in particular, how incarceration may exacerbate risk factors for homelessness. This research uses administrative data on a cohort of men released from Pennsylvania state prisons and their subsequent shelter usage. These data are well suited to the present study because they contain a range of detailed individual characteristics and circumstances as well as records of shelter usage for nearly 15 eight years after release from prison.

Prior Research

20 Past studies indicate that formerly incarcerated individuals experience greater residential instability (Baer et al., 2006; Harding, Morenoff, & Herbert, 2013; Western, Braga, Davis, & Sirois, 2015). For instance, using data from the Fragile Families and Child Well-Being Study, Geller and Curtis (2011) show that individuals with a history of incarceration were more likely to move frequently and rely on others to pay the rent than never-incarcerated males. Notably, these findings held net of both prior disadvantage and housing instability. Using 25 nationally representative data and robust with-in person analyses, Warner's (2015) findings are consistent with Geller and Curtis'; Warner shows that individuals experience elevated mobility after incarceration compared to before, suggesting that incarceration imposes impediments to obtaining stable housing.

30 As an acute form of residential instability, the magnitude of the potential homeless problem is cause for concern: approximately 641,000 individuals are released annually from prison and there are more than five million formerly incarcerated persons in the general population at risk (Carson, 2016; Shannon et al., in press; Travis, 2005). Yet far less is known about homelessness among the formerly incarcerated compared to other aspects of reintegration such as 35 employment or family relationships (see Wakefield & Uggen, 2010 for a review). Moreover, other aspects of reintegration are dependent on having stable housing, and while homelessness itself is a proxy for reintegration challenges, it is also associated with recidivism (Lutze et al., 2014; Metraux & Culhane, 2004; Steiner, Makarios, & Travis, 2015). Work to date on homelessness among formerly incarcerated persons focuses on documenting the parameters, in particular: prevalence, correlates, and explanatory mechanisms. 40

4 REMSTER

First though, it is necessary to define the phenomenon at hand. The current study, like those before it (Geller & Curtis, 2011; Metraux & Culhane, 2004), employs shelter use as a proxy for homelessness. This conservative definition captures a severe form of deprivation. To consider who uses homeless shelters, it is helpful to conceptualize housing security on a continuum, on which many weak, unstable forms of housing lie before literal homelessness and shelter use (see Lee, Tyler, & Wright, 2010). Although most individuals enter tenuous housing circumstances post release (LaVigne et al., 2004; Western et al., 2015), those with someplace to stay other than a shelter have marginally more resources to draw on. In addition to excluding individuals on the brink of homelessness, shelter use estimates likely undercount street sleepers. However, experts submit that individuals who sleep outdoors or in other places not intended for human habitation such as train stations, occasionally rely on shelters for services or shelter from extreme weather (Burt, Aron, Lee, & Valente, 2001).

Homeless shelter estimates across the country suggest that approximately 10% of individuals exiting prison rely on shelters (California Department of Corrections, 1997; Hombs, 2002; Metraux & Culhane, 2004; Metraux, Roman, & Cho, 2008; Rossman, Sridharan, Gouvis, Buck, & Morley, 1999). Other work shows that formerly incarcerated men are more than twice as likely to use shelters as men who have never been incarcerated, net of disadvantage and prior housing instability (Geller & Curtis, 2011). Regarding mechanisms, reintegration challenges are central to understanding homeless shelter use among formerly incarcerated persons.

Primary mechanisms include stigma, which makes securing employment and housing difficult, exacerbates physical and mental health problems, and damages family relationships (Gowan, 2002; Helfgott, 1997; Massoglia, 2008a, 2008b; Pager, 2003; Schnittker & John, 2007; Schnittker et al., 2012); education and skill deficits (Western, 2002); depressed wages (Geller & Curtis, 2011; Western, 2002); and collateral consequences, which, in many states, prevent individuals convicted of drug related crimes from living in public housing or obtaining public assistance (Geller & Curtis, 2011; Travis, 2005). These explanations, combined with correlates of shelter use in the general population and prior research, provide a set of risk factors for shelter use among the formerly incarcerated.

Shelter use correlates in the general population include demographic characteristics, institutional history, social buffers, and personal vulnerabilities; all of which are concentrated in correctional populations (see Lee et al. (2010) and Metraux et al. (2008) for reviews). For instance, regarding personal vulnerabilities: formerly incarcerated persons have elevated rates of mental illness, substance abuse and dependence, and physical ailments (Center on Addiction & Substance Abuse, 2010; James & Glaze, 2006; Kushel, Hahn, Evans, Bangsberg, & Moss, 2006; Massoglia, 2008a, 2008b; Mumola, 1999). Prior work also finds that individuals with previous institutional experiences such as incarceration or shelter use are more likely to use shelters after release (Metraux & Culhane,

AQ2



2004). Turning to demographics, formerly incarcerated Blacks individuals, males, older individuals, and single persons are more likely to enter shelters (Gowan, 2002; Kushel, Hahn, Evans, Bangsberg, & Moss, 2005; Metraux & Culhane, 2004). Although a range of factors are associated with an increase in the risk of shelter use, social buffers such as human and social capital (education and family relationships) are negatively associated with shelter use (Kushel et al., 2005).

Besides these established correlates of shelter use in the general population, previous work suggests that criminal justice characteristics also differentiate risk of shelter use among formerly incarcerated persons, specifically index offense type, reason for index incarceration (new offense vs. parole violation), and release status (parole vs. full sentence completion). Research is mixed regarding release status (Metraux et al., 2008). On the one hand, research finds that receiving discretionary parole is associated with an increased risk of shelter use, as is an index stay for a parole violation (Metraux & Culhane, 2004). Given that individuals who receive discretionary parole are generally better off than individuals who do not, and that to be incarcerated for a parole violation one must have initially received parole (Petersilia, 2003), the authors hypothesized that individuals may check into a shelter to satisfy parole requirements. On the other hand, another study finds that individuals who serve their full sentence, known as maxing out, experience greater risk of shelter use than paroled persons (Metraux, 2008). Individuals who complete their full sentence typically do so because they have a history of prison misconduct (sometimes due to mental illness), do not have a home plan (a place to live upon release), or the parole board perceives them as a threat to public safety. Regarding offense type, prior work finds that individuals convicted of violent offenses have a higher risk of shelter use (Metraux & Culhane, 2004).

The research reviewed above advanced our understanding of homeless shelter use among formerly incarcerated persons considerably, but by applying a life course perspective and insights from reintegration research, our understanding can be further developed.

A Life Course Perspective on Shelter Use among the Formerly Incarcerated

Seminal work has established incarceration as a stage in the life course, particularly for low skill men of color (Pettit & Western, 2004). Placing incarceration alongside other common life events such as college attendance and military service, Pettit and Western suggest that incarceration can be a turning point which redirects the life course. Today, a growing body of research indicates that incarceration indeed disrupts life trajectories and is associated with diminished life chances. In particular, incarceration reduces the likelihood of marriage, limits schooling and employment opportunities, and harms health (see Massoglia and Pridemore (2015) and Wakefield and Uggen (2010), for

6 REMSTER

reviews). In short, incarceration confers considerable hardship after release, which may increase the risk of shelter use.

Turning points account for change in life chances, but there is also a great deal of stability in life course trajectories (Sampson & Laub, 1997). The process of cumulative disadvantage highlights this continuity, linking hardships across the life course. Because incarcerated persons are disproportionately disadvantaged prior to prison, reintegration challenges may help solidify downward trajectories already in place. For example, approximately 50% of correctional populations report falling below the federal poverty line prior to their incarceration (Wheelock & Uggen, 2008). Consequently, Wheelock and Uggen argue that incarceration “sustains and exacerbates” prior disadvantages. Thus both incarceration and shelter use may be part of an underlying cumulative disadvantage process. Put differently, cumulative disadvantage acknowledges the influence of selection processes, which suggest that some individuals may have used homeless shelters regardless of whether they were incarcerated. By examining how standard risk factors are associated with shelter use post release, this study will enhance our understanding of the role of cumulative disadvantage in the reintegration process.

In addition to continuity, cumulative disadvantage recognizes the influence of multiple risk factors for shelter use and views them as interconnected rather than independent. Indeed, risk factors for shelter use are not uncommon in this population: approximately 68% of state prisoners do not have a high school diploma, 24% have mental health problems, and 57% report using drugs in the month prior to their incarceration (Harlow, 2003; James & Glaze, 2006; Lee et al., 2010; Mumola, 1999). These constellations of risk are often deeply intertwined. Beyond highlighting the complexity of human lives, having multiple risk factors has consequences; in general, studies find that having multiple risk factors is associated with more detrimental outcomes (Assink et al., 2015; Jolliffe, Farrington, Piquero, Loeber, & Hill, 2017). In short, indicators of vulnerability and hardship are not isolated, but rather are part of a package of disadvantage that accrues overtime. Yet few studies have assessed how having multiple risk factors affects reintegration. The current study fills this void by assessing how having multiple risk factors is associated with shelter use.

The Nature of Homeless Shelter Use

Although much work has documented the varied vulnerabilities and challenges individuals experience post release, less is known about how long this process takes. Thus identifying the nature of shelter use among formerly incarcerated persons has implications for how we conceptualize reintegration. Scholars often characterize incarceration as disruptive to a person’s life course (Pettit & Western, 2004), but the extent of this disruption is unknown. If, for instance, individuals rely on shelters repeatedly or long after release then

reintegration may take longer than currently theorized. However, there is also reason to think that incarceration may only temporarily disrupt the life course.

The Reentry Perspective

5 In studies of reintegration, researchers tend to focus on the issues individuals face immediately following release (Petersilia, 2003; Travis, 2005). Some even emphasize the importance of the "moment of release" (Visher & Travis, 2003, p. 96). From this "reentry" perspective, research suggests that the first few months post release is critical. Indeed, research shows that individuals experience elevated mortality, unemployment, and recidivism rates shortly after release (Binswanger et al., 2007; Langan & Levin, 2002; Western et al., 2015).
10 More pertinent to the research at hand, existing research suggests that this time period is also important for shelter use.

Using two years of administrative data on individuals released from New York state facilities, Metraux and Culhane (2004) find that 54% of released individuals' shelter stays occurred within the first 30 days post release, leading the authors to conclude that shelter use is a proximate problem post release. In this view, individuals *temporarily* rely on homeless shelters post release while they secure employment and more stable housing. In other words, shelter use is a passing experience, not part of a larger trajectory of disadvantage or prolonged hardship post release. Consistent with Metraux and Culhane's work, Hombs (2002) reports that 9.3, 10.5, and 6.3% of individuals released in 1997, 1998, and 1999 respectively from prison in Massachusetts went straight to shelters. Relatedly, Western and colleagues' (2015) find that housing security increased with time since release. These three studies, which rely on observation periods ranging from six months to two years, are by no means unique; most research on reintegration is limited to two years or less. For instance, the Urban Institute's Returning Home Studies, whose objective was to produce a detailed portrait of reintegration among the formerly incarcerated, followed individuals in four states for a maximum of 16 months (minimum = 6 months; Urban Institute Justice Policy Center, n.d.).
25
30

The Delayed Perspective

Although homelessness has been primarily characterized as a reentry problem, the follow up periods in prior studies have been too short to verify that this is indeed the case. Furthermore, there is both theoretical and empirical evidence
35 suggesting that formerly incarcerated persons may also become homeless much later. Drawing on five years of street ethnography in two cities supplemented by interviews in shelters and drug treatment centers, Gowan (2002) finds that some of her interviewees did not experience homelessness until years after release. Gowan, describes her respondents' slow progress along the housing

8 REMSTER

continuum, moving to less and less stable living circumstances over time, which involved burning through weak ties and limited resources. In her words, sometimes “marginality did not manifest itself as literal homelessness for a long time” (2002, p. 514). Beyond timing, Gowan (2002) chronicles extended and/or repeated bouts of homelessness, but the scope of this is unknown in quantitative work. 5

Harding, Wyse, Dobson, and Morenoff’s (2014) findings, based on three years of qualitative research in Michigan, echo Gowan’s in terms of timing. Harding and colleagues detail how housing security is in constant flux for respondents in their sample and yet, like Gowan’s, the respondents who eventually became homeless were able to avoid it for years. For example, one respondent, Lenora, sought out a variety of services and assistance but each program had an expiration date, “after which she had to struggle again to meet her basic needs” (Harding et al., 2014, p. 458). Eventually the stress from such instability led to a drug relapse, and ultimately, homelessness. 10 15

Quantitative data also alludes to the idea that reintegration challenges are not necessarily immediate. The Returning Home studies show that most individuals have a place to go immediately after release, but researchers note that such generosity is unlikely permanent (LaVigne et al., 2004); most families and friends cannot afford to support a loved one long term. Indeed, one third of respondents in the Illinois Returning Home study categorized their living arrangements as temporary (Baer et al., 2006). 20 25

Although the timing is unclear, the mechanisms Gowan and Harding document for delayed homelessness are the same as those used to explain immediate homelessness. For instance, there is no expiration on the “mark” of a criminal record for employment and housing discrimination (Gowan, 2002; Helfgott, 1997; Pager, 2003). Not only does social exclusion persist, but vocational and education deficits are rarely addressed, particularly because individuals convicted of a felony are blocked from receiving federal education loans. Individuals also continue to lack access to continuous medical care. Additionally, family members’ goodwill may run out as formerly incarcerated persons are unable to contribute to household expenses or, families may learn over time that the bonds damaged by incarceration are irreparable or that partners are no longer compatible (Gowan, 2002; Massoglia et al., 2011). Although the bulk of work to date argues that homelessness is primarily an obstacle for newly released individuals, a growing number of studies suggest that individuals may be at risk for homelessness well beyond the first few months post release. 30 35 40

The Current Study

Building on prior work, this study provides a more comprehensive portrait of homeless shelter use among formerly incarcerated individuals in three ways. First, drawing on nearly eight years of data post release provides insight 45

into the timing of homeless shelter use among released persons, specifically allowing me to investigate the extent of delayed homelessness. Second, this study further illuminates how the formerly incarcerated experience homelessness by examining the frequency and length of spells as well as the timing between spells. Third, I examine how risk factors, both individually and cumulatively, are associated with shelter use over time.

Data and Methods

Part of the reason little is known about homelessness among the formerly incarcerated is due to data limitations. This highly mobile and disadvantaged population is difficult to track. To address this, the present study combines three different administrative data sources to gain detailed information. Data from the first data source, the Pennsylvania Department of Corrections (PADOC), defines the population at risk. The PADOC provided information on a cohort of individuals released from PA state prisons between 1999 and 2002 to Philadelphia. Individuals were either paroled to Philadelphia (71.1%) or, if they completed their full sentence, originated from Philadelphia. The PADOC data also include information on re-incarcerations in PA state prisons for new offenses and parole violations through 2010 as well as a range of important constructs needed to understand the risk of shelter use. All indicators included in the analysis come from the PADOC at intake unless noted.

These individuals' PADOC records were then matched with data from the city of Philadelphia's Office of Supportive Housing (OSH), which provided information on who utilized Philadelphia homeless shelters. The OSH maintains Philadelphia's Homeless Management Information System (HMIS) which tracks individuals' homeless shelter usage. The HMIS data covers approximately 85% of shelter beds in Philadelphia (Culhane, Dejowski, Ibañez, Needham, & Macchia, 1994) and includes shelters run by both non-profit organizations and the City of Philadelphia, which contracts shelter management to private companies. According to the HMIS data, approximately 9,500 single adults use a shelter annually. These data do not contain homeless episodes in which individuals sleep on the street or elsewhere (see Leginski, 2003 for a detailed discussion on limitations of HMIS data).

Although shelter users do not include all homeless persons, experts estimate that the majority of homeless persons in urban areas occasionally rely on shelter services, even if it is not their mainstay (Burt et al., 2001). The Census does attempt to count street sleepers, however these estimates are highly contentious (see Lee et al., 2010). Extreme poverty is vital to conceptualizing the shelter user population (Lee et al., 2010), as individuals with even marginally more resources have alternatives to shelters, which may include renting cheap hotel rooms or couch surfing with family and/or friends. Unfortunately, the Census does not assess the number of individuals in precarious housing, who are on the edge of literal homelessness. Thus while shelter data is perhaps

10 REMSTER

the most common way researchers study homelessness, it only provides conservative estimates of extreme residential hardship.

5

The matching of HMIS and PADOX data was completed using software that performs both probabilistic and deterministic matches based on social security numbers, name, sex, and date of birth. The final data source is the Pennsylvania Commission on Sentencing (PCS). The PCS data contain information on all convictions in Pennsylvania from 1999 through 2010, with two exceptions: sentences from district magistrates and Philadelphia Municipal Court are not included. While the absence of Philadelphia Municipal Court data is a limitation, available data suggest this is of minimal concern (Pew Charitable Trusts [PEW], 2010).¹ Although the PADOX data provides information on state reincarcerations, the PCS data adds jail spells. Matching on Pennsylvania inmate identifiers, the PCS data contributes valuable information for defining when individuals are at risk for homeless shelter use. Together, these three data sources allow me to examine shelter use among a recent cohort of individuals exiting prison for almost eight years post release.

10

15

Sample Description

20

The eligible sample consists of 12,338 men who were released to or originated from Philadelphia between 1999 and 2002.² After removing inconsistent cases, the analytic sample contains 11,964 individuals.³ In this sample, 7.96% relied on homeless shelters in the first 2,872 days (almost eight years) following release. Below, I describe how shelter use is measured before describing measurement of the independent variables. In addition to measures of criminal justice and demographic characteristics, institutional history, social buffers, and personal vulnerabilities, I adjust for individuals' release date. Descriptive statistics for all variables in the analysis appear in Table 1. The first column displays descriptives

25

1. Most municipal court cases involve summary offenses, which are generally punishable by up to 90 days in jail. Additionally, Philadelphia jail data, which includes individuals sentenced by the City's municipal courts, suggests that lengthy sentences are uncommon. A recent PEW (2010) analysis shows that of the 23% percent of Philadelphia jail inmates serving time for convictions in 2009, approximately 45% stayed less than one month and another 31% stayed between one and four months. Thus, given these short sentences, in combination with the current study's lengthy observation period, the absence of City municipal convictions likely has minimal impact.

AQ3
AQ4

2. The sample is limited to men because the reentry process and pathways to shelter use differ for men and women (Passaro, 1996; Richie, 2001). Historically, single adult men are eligible for the least amount of aid while women often have dependents or are victims of domestic violence, affecting the shelter options and aid available to them. Moreover, men comprise the bulk of correctional and homeless populations; approximately 96% of Pennsylvania state prisoners in 1999 were men (Carson, 2016; Burt et al., 2001).

AQ5

3. Multiple imputation was used for missing values on independent variables (Allison, 2001). All measures had less than 5% missing, with the exception of the drug use index (35%), because it was not administered to all entering inmates until 2001. When the listwise and imputed results for the 1999 and 2000 cohorts were compared to the 2001 and 2002 cohorts, there were no meaningful differences, thus results using the imputed data appear in the tables that follow.

Table 1 Descriptive statistics

Variable	Full sample		Shelter users		Non-shelter users		Significantly different?	Range	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.			
Shelter use	7.96%	.271	—	—	—	—	0	1	
<i>Personal vulnerabilities</i>									
Intensive mental health services	1.25%	.111	4.10%	.198	1.01%	.100	***	0	1
Stable mental health services	7.23%	.259	14.71%	.354	6.58%	.248	***	0	1
Drug abuse	14.57%	.353	12.50%	.331	14.75%	.355		0	1
Drug dependence	37.29%	.484	42.02%	.494	36.88%	.482	**	0	1
Underweight	.69%	.083	.84%	.091	.67%	.082		0	1
Overweight	43.22%	.495	45.17%	.498	43.05%	.495		0	1
Obese	26.28%	.440	24.26%	.429	26.45%	.441		0	1
<i>Institutional history</i>									
Total incarceration history	1.750	1.859	1.808	1.905	1.745	1.855		0	6
Prior homelessness	.94%	.096	7.35%	.261	.38%	.062	***	0	1
<i>Social buffers</i>									
High school diploma	46.53%	.499	45.90%	.499	46.59%	.499		0	1
More than HS diploma	3.91%	.194	4.73%	.212	3.84%	.192		0	1
Married	16.52%	.371	12.08%	.326	16.90%	.375	***	0	1
<i>Criminal justice characteristics</i>									
Served full sentence	28.88%	.453	55.78%	.497	26.55%	.442	***	0	1
Parole violation index stay	40.74%	.491	46.43%	.499	40.25%	.490	***	0	1
Sentence length	.023	3.091	-.123	2.951	.036	3.103		-2.86	25.14
Violent index offense	40.98%	.492	40.23%	.491	41.05%	.492		0	1
<i>Demographic characteristics</i>									
Age at release	31.195	4.499	33.524	2.926	30.993	4.554	***	18	35

(Continued)

Table 1 (Continued)

Variable	Full sample		Shelter users		Non-shelter users		Significantly different?	Range
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.		
African American	75.84%	.428	89.29%	.309	74.67%	.435	***	0 1
Release year: 2000	27.38%	.446	26.68%	.443	27.44%	.446		0 1
Release year: 2001	22.98%	.421	24.05%	.428	22.88%	.420		0 1
Release year: 2002	22.17%	.415	23.84%	.426	22.02%	.414		0 1
Sample	N = 11,964 men		N = 952 men		N = 11,012 men			

Notes. Reference groups: no mental health services; no substance use issues; normal BMI; less than high school diploma; release year = 1999. Significance tests are for shelters users vs. non-shelter users.
p* < .05; *p* < .01; ****p* < .001.



5 for the full sample, followed by shelter users vs. non-shelter users. Asterisks denote whether shelter users significantly differ from non-shelter users on each measure.

Measurement

Dependent variable

10 Following precedent set by prior quantitative work, I utilize emergency shelter usage to measure homelessness (e.g. Culhane et al., 1994; Metraux & Culhane, 2004; Poulin, Metraux, & Culhane, 2008). Philadelphia's HMIS records the date each time a person checks into and out of a shelter in the system. In Philadelphia, a person can enter a shelter 24 hours a day, no identification required.
15 To preserve beds for those with the greatest need, the intake worker is tasked with confirming that the person has no other housing options, such as friends or relatives. For instance, if a person is homeless due to a domestic dispute, the intake worker attempts to mediate the situation. To stay in a shelter, users are required to abide by a standard set of rules they receive upon entry.
20 Violating these rules, such as returning after curfew or being under the influence of drugs or alcohol result in removal. Aside from this, there are no factors that prevent individuals from using shelters. In fact, most shelters distribute medication to clients daily and some offer drug and alcohol treatment and or counseling services. Together, these factors suggests this measure
25 is a valid proxy for shelter use in Philadelphia.

In this analysis, timing of shelter use is measured as the number of days post release until a person enters a shelter during the observation period. Any subsequent shelter stays are also measured from the prison index spell day of release.

Personal vulnerabilities

30 Two indicators representing mental illness are included in the analysis: receipt of intensive mental health services and receipt of stable mental health services. During prison intake, the Psychiatric Review Team (PRT) classifies individuals with mental health issues into two groups: the PRT roster, which
35 consists of individuals with severe mental health issues receiving intensive services seen by a practitioner every 30 days, and the Mental Health/Mental Retardation (MH/MR) roster, a less intense, clinically stable group actively receiving mental health services seen every 90 days. All individuals on the PRT roster and the vast majority of those on the MH/MR roster have been diagnosed
40 with a serious mental illness and are receiving medication along with other services. Both rosters are updated every 30 days post intake, thus the

14 REMSTER

measures represent persons actively receiving mental health treatment at the time of release.

Drug use is measured using the Texas Christian University Drug Screen II (TCU), which is administered at prison intake and references drug use in the year prior to incarceration. This instrument was specifically designed to measure drug use in correctional populations and subsequently validated on inmate populations (Knight, Simpson, & Morey, 2002). The TCU index is a summative score of nine yes/no questions, with a score of 1–3 indicating the presence of drug abuse and a score over 3 indicating dependence. Mutually exclusive dummy variables representing abuse and dependence are included in the analysis.

BMI serves as a proxy for physical health status (Doll, Petersen, & Stewart-Brown, 2000; Lean, Han, & Seidell, 1999). BMI is calculated using individuals' height and weight from prison intake and then categorized into four groups: underweight, normal weight, overweight, and obese (Center for Disease Control & Prevention, 2013). In the present study, normal weight serves as the reference category.

Institutional history

Incarceration history is comprised of the number of previous state incarcerations as well as most out of state spells, ranging from zero to six previous incarcerations. Philadelphia's digital homeless shelter record system (HMIS) is among the oldest in the country, dating back to 1995. A dummy indicator captures whether a person used a homeless shelter between 1995 and their index incarceration spell.

Social buffers

I include indicators of marital status and academic attainment to capture potential buffers from shelter use. A dummy variable indicates whether individuals are married. Given low levels of education in this population, I include indicators for obtaining a high school degree and more than a high school degree, with the reference category representing less than a high school degree.

Demographic characteristics

Race was recorded at intake and age at the time of release. To facilitate interpretation, age was top coded at 35. A likelihood ratio test comparing the results of the models with the top coded age variable to models with a cubic term for age was non-significant, indicating that the top coded term adequately captures the variation in age.

Criminal justice characteristics

5 In Pennsylvania, individuals are discharged under one of two dispositions: they
either receive parole or serve their full sentence, thus I include an indicator
for full sentence completion in the analysis. The reference category is individ-
uals who received parole. I also include an indicator for whether individuals
were serving time for a parole violation. Sentence length, measured in months,
10 is mean-centered to facilitate interpretation. Index offenses are grouped into
violent versus nonviolent offenses using the Uniform Crime Report's violent
crime definition (aggravated assault, forcible rape, murder, and robbery).

Method

15 This study uses Cox proportional hazards models to assess the timing of shelter
use post release and the factors which influence the timing. Cox models are
well suited for the present analysis because they make no assumptions about
the underlying distribution of the timing of shelter use (Allison, 1984). The first
portion of the analysis models the first shelter spell post release. Each person
is at risk for shelter use for the first 2,872 days following release, regardless of
20 when he was released. Following Allison (1984), individuals are right censored
when they (1) check into a shelter or (2) are re-incarcerated since they are
not eligible for shelter use while in prison or jail. Only individuals in prison/jail
return to the risk set upon release; once individuals use a shelter they are cen-
sored for the remaining portion of the observation period.

25 Yet 56.5% of those who used shelters did so more than once, thus I also uti-
lize an extension of the Cox model to model repeated events, which uses all
available data (Box-Steffensmeier & Jones, 2004). Stratified Cox models ana-
lyze ordered events, in this case, shelter spells, and allow the hazard to vary
for each shelter spell. In other words, stratified Cox models account for event
dependence. Coefficients are constant across events. Robust clustered stan-
30 dard errors are used to address the dependence among observations.

35 With repeated events, the risk set differs from the first portion of the analy-
sis in that once a person enters a shelter, he is right censored only until he
exits the shelter. Importantly, a person is not at risk for a second spell until
after he has experienced a first spell, and so on. Using an elapsed time
approach, any subsequent shelter spells are also measured from the day of
40 release from the index prison stay. For example, if a person first used a shelter
30 days after release and then again 60 days later, the second event time
would be 90 days. As with traditional Cox models, stratified Cox models esti-
mate the risk or hazard of homeless shelter use. More specifically, the coeffi-
cients for each covariate represent acceleration or delay in the likelihood of
shelter use.

Logic of Analysis

The analysis proceeds in three parts. To understand the nature of shelter usage among men leaving prison, I begin by presenting a variety of summary measures. These measures include the average number of shelter spells, spell duration, the total time spent in shelters, the time until the first shelter spell, and the time between spells. Together, these indicators illustrate how formerly incarcerated men experience homelessness (via shelter use), specifically whether shelter use is a brief hardship or indicative of more prolonged reintegration issues. Next, I use event history analysis to focus on the timing of shelter use post release and whether delayed homelessness exists. I present the unadjusted risk of shelter use for the first 2,872 days post release before showing multivariate results for both time to first event and repeated events. Third, because many individuals have more than one risk factor for shelter use, I assess how the accumulation of risk factors is associated with the risk of shelter use post release.

Results

Univariate Results

Table 2 shows various shelter use characteristics over nearly eight years post release (2,872 days) among those who used shelters. The results suggest a complex picture of shelter use. For one, the average number of shelter spells is 2.86 (SD = 2.64).⁴ To facilitate understanding, Figure 1 panel (a) graphs the number of spells per person among shelter users. Approximately 39.5% of users stayed once, suggesting that for some, shelters serve as a transitional resource

Table 2 Shelter usage characteristics

	Mean	Std. dev.	Range
Number of spells	2.86	2.64	1–19
Spell duration	60.28	79.39	1–1055.5
Total time in shelters	162.51	210.03	1–2111
Time to first spell	958.49	831.97	0–2863
Time between spells ¹	419.49	459.43	31–2826

Notes. Time is measured in days. *N* = 952 shelter users.

¹*N* = 548 shelter users.

4. These are discrete shelter spells; if a person enters and re-enters a shelter multiple times within a 30 day period (known as mini spells), these are combined into one single spell (Culhane et al., 1994).

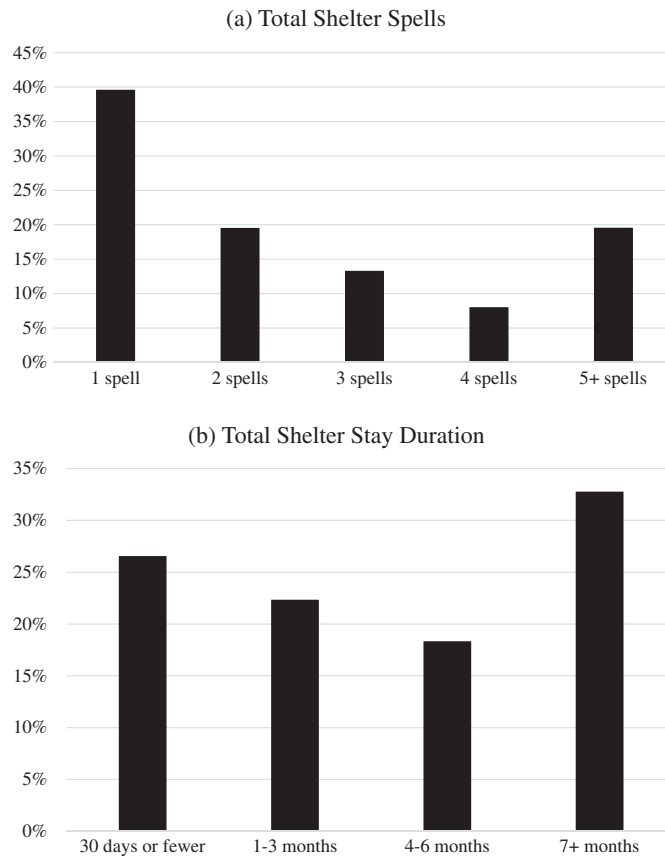


Figure 1 Total shelter spells and duration among shelter users ($N = 952$).

5 and after securing more stable housing, they did not return. Yet the majority of
 those who relied on shelters stayed more than once during the observation per-
 10 iod (60.5%). This repeated use highlights the difficulty of reintegrating today.
 Turning back to Table 2, the average shelter spell lasted approximately two
 months (60.3 days) and the average total time in shelters for the observation
 15 period, the length of all spells combined, is over five months (162.5 days). The
 latter is graphed in Figure 1 panel (b), demonstrating that the modal category
 for total time spent in shelters is seven or more months. These results suggest
 that it takes considerable time to get back on one's feet; only 26.6% of shelter
 20 users stayed for one month or less. Finally, we turn to the timing of shelter
 use. Among those who used shelters, the first shelter spell on average occurred
 several years after release (2.66 years) and among individuals who experienced
 more than one spell, the average time between spells is more than a year (1.17
 years). Thus while the first spell is delayed substantially, once a person users a
 shelter, the amount of time until he enters again is reduced by more than half.
 Given the variation on these five indicators in Table 2, the results

collectively suggest that shelter use among men leaving prison is multifaceted and that for most, shelter use is not a temporary hang-up.

Turning to the event history results, the top panel (a) of Figure 2 depicts the unadjusted hazard for first shelter use for the full sample. Any point on the hazard line can be interpreted as the instantaneous risk of shelter use for the first time, conditional that it did not already happen. The hazard illustrates two important points. First, as documented in prior work, the risk of shelter use starts off relatively high and then declines dramatically with time post release (Metraux & Culhane, 2004). Yet, the figure also shows that some individuals utilize homeless shelters for the first time long after release. If the observation period ended two years post release, these results indicate that a substantial portion of shelter use would be missed. More specifically, half of

5

10

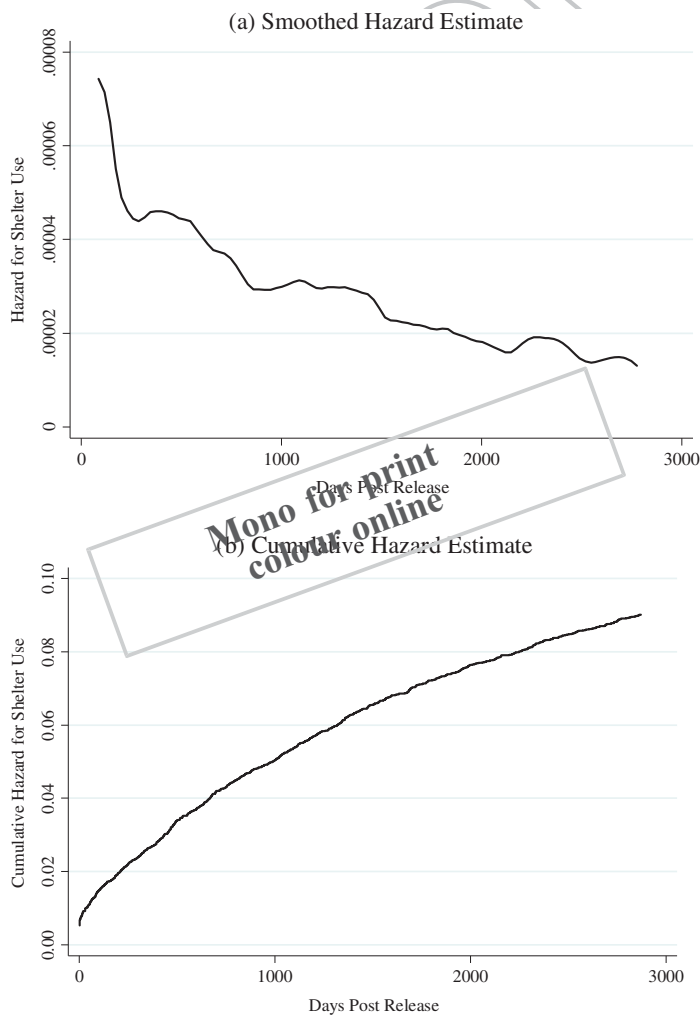


Figure 2 Hazard and cumulative hazard for time to first spell.

first shelter spells (49.6%) did not occur until after two years. Indeed, 27.6% of first shelter spells occurred more than four years after release.

5 The cumulative hazard appears in the lower panel (b) of Figure 2, which shows that approximately 92.04% of men “survive”, or do not utilize shelters during the observation period.

Multivariate Results

10 Having established the univariate risk of shelter use for nearly eight years after release, I next examine whether and how criminal justice and demographic characteristics, institutional history, social buffers, and personal vulnerabilities are associated with this risk. The results for both the first shelter spell and repeated events appear in Table 3. Beginning with the first event model (model 1), the results suggest that personal vulnerabilities are strongly associated with the occurrence and timing of shelter use. Receipt of intensive or stable mental health services in prison is associated with more than a twofold acceleration in the risk of shelter use after release (RR = 2.47; 2.11). Regarding drug use, the associated risk is accelerated by 34% for persons assessed with dependence (RR = 1.34), whereas drug abuse, the lesser form, is not predictive. Turning to physical health, being obese is associated with a slight slowing in shelter use risk, which might indicate differential access to resources (i.e. if one has enough food, then they probably have shelter).

15
20
25
30
35
40 Next, we see that a history of shelter use has a strong relationship with subsequent shelter use, which is consistent with prior work. Indeed, prior shelter use is associated with over an eight-fold hastening in the risk of post release shelter use (RR = 8.33). However, in contrast to previous research in New York City, where 45.1% of individuals leaving prison who used shelters had used them prior to incarceration (Metraux & Culhane, 2004), only 7.4% of those who used shelters after release utilized shelters prior to their index incarceration in the present study ($N = 70$); meaning that while prior shelter use is the strongest covariate in the model, this finding is driven by a relatively small number of men. The magnitude of this association suggests two possibilities. It may be indicative of cumulative disadvantage; that individuals disadvantaged prior to their index stay are more likely to rely on shelters post release. However, incarceration history is not related to shelter use. Alternatively, the pre-post shelter association may be capturing resource differences. Perhaps individuals with a history of shelter use are more likely to use shelters post release because they are familiar with them, and thus know the rules, expectations, and locations.

40 The results are mixed regarding social buffers. On the one hand, having more than a high school degree is associated with an accelerated risk of shelter use compared to having less than a high school diploma. This resonates with Gowan’s (2002) work, which a respondent attributed to stigma. Because incarceration was relatively rare in his middle class community, he was not

Table 3 Cox regression predicting time to shelter use

	Model 1: First event			Model 2: Repeated events		
	<i>b</i>	(SE)	Risk ratio	<i>b</i>	(SE)	Risk ratio
<i>Personal vulnerabilities</i>						
Intensive mental health services	.903***	(.179)	2.467	.355**	(.115)	1.426
Stable mental health services	.745***	(.097)	2.106	.290***	(.075)	1.336
Substance abuse	-.033	(.108)	.968	-.027	(.090)	.974
Substance dependence	.292***	(.086)	1.339	.101	(.072)	1.106
Underweight	.053	(.384)	1.054	.066	(.272)	1.068
Overweight	-.043	(.079)	.958	-.027	(.060)	.973
Obese	-.186*	(.091)	.830	-.050	(.073)	.951
<i>Institutional history</i>						
Total incarceration history	-.040	(.022)	.961	.002	(.020)	1.002
Prior homelessness	2.120***	(.152)	8.328	.335***	(.098)	1.398
<i>Social buffers</i>						
High school diploma	-.009	(.069)	.991	-.075	(.052)	.928
More than HS diploma	.376*	(.158)	1.456	-.054	(.125)	.947
Married	-.438***	(.105)	.646	-.172*	(.085)	.842
<i>Criminal justice characteristics</i>						
Served full sentence	1.022***	(.070)	2.779	.206**	(.066)	1.229
Parole violation index stay	-.163*	(.079)	.850	-.042	(.060)	.958
Sentence length	-.038**	(.012)	.963	-.028**	(.009)	.972
Violent index offense	.076	(.072)	1.079	.057	(.056)	1.059
<i>Demographic characteristics</i>						
Age at release	.161***	(.012)	1.175	.089***	(.011)	1.094
African American	1.027***	(.107)	2.794	.670***	(.096)	1.955
Release year: 2000	.076	(.092)	1.078	-.024	(.068)	.977
Release year: 2001	.109	(.100)	1.115	-.045	(.082)	.956
Release year: 2002	.024	(.099)	1.025	-.031	(.079)	.970
Sample size	16,554 person-observations			19,167 person-observations		

Notes. Reference groups: no mental health services; no substance use issues; normal BMI; less than high school diploma; release year = 1999.

* $p < .05$; ** $p < .01$; *** $p < .001$.

welcomed back. On the other, being married is associated with a dampened risk of 35.4% among ex-prisoners (RR = .65).

Concerning criminal justice characteristics, the results indicate that full sentence completion (maxing out) is strongly associated with an acceleration of shelter use (RR = 2.78). This is in line with work suggesting that the most vulnerable are more likely to max out, that individuals who max out receive no transitional services, and that individuals who max out are more likely to be unemployed and use substances post release than those who are paroled

(Metraux, 2008; Petersilia, 2003; Yahner, Visher, & Solomon, 2008). The results also show that serving time for a parole violation compared to a new offense is associated with a diminishing risk, as are above average sentences. Perhaps individuals with one long sentence have more resources to draw on post release compared to those with shorter sentences who, by cycling in and out, drain their resources.

Turning to demographic characteristics, age and race are associated with shelter use. Each additional year older is associated with a 17.5% acceleration in the risk of shelter use (RR = 1.175) and Black men experience nearly a threefold hastening of the risk compared to individuals of other races and ethnicities (RR = 2.794).

I next examine the repeated events results (model 2). In general, these results are consistent with those for the first event. Receipt of mental health services in prison, a history of shelter use, full sentence completion, age and race continue to be associated with accelerations in the risk of shelter use. Meanwhile being married or serving a longer sentence remain associated with a slowing of the risk. Only a few factors associated with first shelter use are not associated with all shelter use spells—most of which were only weakly associated with first shelter use in model 1—specifically, substance use, physical health, education, and incarceration for parole violations. For instance, substance dependence is associated with an accelerated risk of a first shelter spell, but not all spells. Thus some factors matter less for repeated spells than for the first spell, or are less important for spells that occur later in the observation period.

Overall the magnitude of the associations are somewhat weakened between models 1 and 2, but the prior shelter use association in particular is dramatically reduced (RR = 8.33–1.40). That a history of shelter use is more strongly associated with first shelter use than repeated spells, lends support for the idea that prior shelter use affects post release shelter use through familiarity rather than cumulative disadvantage.

The results presented thus far show how each predictor is associated with the risk of shelter use with the remaining predictors held constant. However, many individuals have more than one of these risk factors. For demonstration purposes, and to test the influence of cumulative disadvantage, I estimate first event hazards for the more common risk factors by category with the remaining covariates held constant. Thus hazards are estimated for (1) individuals who received some form of mental health services and were assessed with substance dependence, (2) older (over age 35) Black men, and (3) individuals who served their full sentence. I compare these hazards to hazards for individuals who did not have any of these risk factors and individuals who had all of them. The results appear in Figure 3, with panel (a) showing the hazards and panel (b) the cumulative hazards.⁵ Together, these panels show that when

5. $N = 6,128$ observations for those who received some form of mental health services and were assessed with substance dependence; $N = 723$ for older Blacks; $N = 3,367$ for maxing out; $N = 87$ for all risk factors; $N = 910$ for no risk factors.

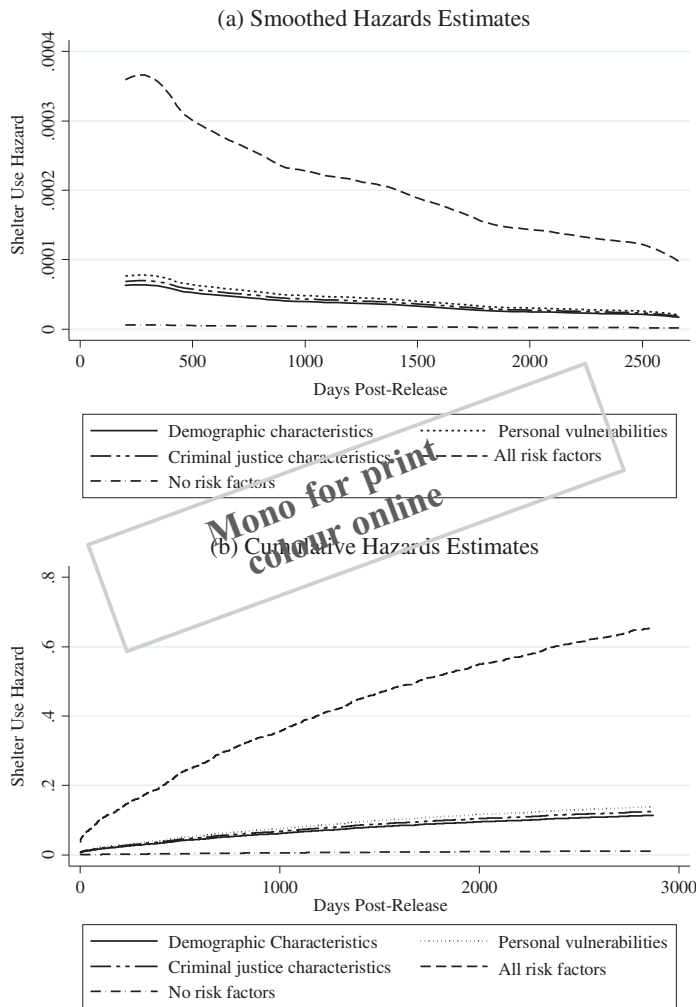


Figure 3 Compounded risk.

individuals have multiple risk factors, their risk increases dramatically, over and above any single risk category. In contrast, individuals without any of these risk factors have a relatively low risk of shelter use. These results suggest that cumulative disadvantage helps understand shelter use risk.

5

Discussion

A growing body of research documents how formerly incarcerated persons struggle to reintegrate, some of whom become homeless, an acute indicator of reintegration failure (Geller & Curtis, 2011; Harding et al., 2014; Western et al., 2015). What remained less clear was the nature of shelter use among

10

individuals released from prison. In this study, I leveraged the life course perspective and multiple administrative data sources to examine how the formerly incarcerated use shelters for nearly eight years post release. The results show that both immediate and delayed shelter use exist. In support of the reentry perspective, the risk is greatest in the first few months after release and declines with time (Metraux & Culhane, 2004). Yet, consistent with ethnographic work, 49.6% of persons who relied on homeless shelters did so more than two years post release, emphasizing the need for longer observation periods in the study of reintegration. These results indicate that reintegration is a prolonged process; more than previously thought.

Not only is reintegration longer, but my findings also suggest that reintegration is a more complex process than current work conceptualizes. Indeed, using nearly eight years of data post release reveals that most individuals who use shelters rely on them more than once and these spells are spread out over time, culminating in months on end spent in shelters. Indeed, these patterns suggest that some individuals do not reintegrate, at least not in over seven years post release, and this is not due to recidivism. Moreover, while I cannot assess causality, the results are consistent with research showing that incarceration is a negative turning point, as 92.6% of individuals who used shelters post release had not done so previously.

Yet the findings also point to the influence of cumulative disadvantage, providing a set of risk factors for both first shelter use and repeated use largely consistent with prior work. Institutional history and personal vulnerabilities are associated with shelter use; specifically a history of shelter use and receipt of mental health treatment in prison are associated with accelerations in the risk of shelter use, net of controls (Burt et al., 2001; Metraux & Culhane, 2004). Also in line with previous research on shelter use in the general population (Burt, 1992), being married is associated with a slowing of the risk among the formerly incarcerated. Regarding criminal justice characteristics, maxing out is strongly associated with an acceleration of shelter use whereas shorter, rather than longer, sentences are associated with a slowing of shelter use risk. Perhaps individuals with relatively short sentences have more resources to draw on or experience less stigma post release than individuals with lengthy sentences. Finally, echoing recent work, older men and Black men experience heightened risks of shelter use. Neither is surprising given the correlation between race and poverty in the U.S. and that older individuals have less social support post release (Western et al., 2015).

Beyond independent associations, the findings suggest that the accumulation of multiple risk factors help illuminate who is most at risk for shelter use. In particular, the combined risk of being older, Black, receiving mental health treatment, having a substance dependency, and maxing out places one at a considerably higher risk above all others exiting prison. These risk patterns highlight that even among this disadvantaged institutional population, the risk of shelter use varies substantially and suggest that cumulative disadvantage is central to understanding reintegration challenges.

24 REMSTER

Though the present study furthers our understanding of shelter use among the formerly incarcerated, it is worth noting a few limitations. First, several covariates were measured at prison intake (e.g. marital status). Thus if individuals develop any risk factors while in prison or post release, their shelter use risk is underestimated. Despite this, several factors measured at intake are associated with shelter use, thus if time varying measures were available, the observed relationships would likely be even stronger. In a related vein, the current study does not have mortality data post release or information on whether individuals moved out of Philadelphia upon parole completion, meaning, in either case, that individuals are not at risk for shelter use in Philadelphia. In short, the results presented are conservative estimates of shelter use and its correlates. An important next step for future research will be obtaining time varying measures, which will help ascertain why the formerly incarcerated use shelters. Moreover, because this study is among the first to examine long term shelter use post release, more research is needed to corroborate these findings. Nevertheless, my findings offer several clear policy recommendations.

First, although the risk of shelter use is highest soon after release, the extended risk of homelessness post release shows that housing assistance and resources are important to individuals long after release. This is concerning as most programs only offer services to recently released individuals. Second, my findings suggest ways that the limited reentry resources available could be used more efficiently. Not all persons exiting prison share the same risk and using risk factors, especially multiple risk factors, can help identify who is most at risk.

More generally, my findings are consistent with calls to make housing a priority of reintegration efforts (Metraux et al., 2008; Raphael, 2011; Roman & Travis, 2006; Travis, 2005). Additionally, an emerging body of work lends support for this endeavor. "Housing first" programs, premised on the idea that providing stable housing ameliorates other challenges the homeless face, have been successful in reducing homelessness among the general population, including for individuals with a history of incarceration (Tsai & Rosenheck, 2012). Recently, Lutze and colleagues found that high risk individuals exiting prison who were provided supportive housing in conjunction with other services had lower recidivism rates than the control group (see also Pleggenkuhle, Huebner, & Kras, 2016). Given these studies and the current study's findings, it is time to prioritize housing assistance for individuals exiting prison, particularly for those with multiple risk factors.

Disclosure Statement 40

AQ6

No potential conflict of interest was reported by the author.

Acknowledgements

5 The author thanks Wayne Osgood, Steve Mettraux, Denise Wilson, Claire Altman, Cody Warner, Barry Lee, John Kramer, Michael Massoglia, and three anonymous reviewers for feedback and assistance with various aspects of this research.

References

- Allison, P. D. (1984). *Event history analysis*. Thousand Oaks, CA: Sage.
- Allison, P. D. (2001). *Missing data*. Thousand Oaks, CA: Sage.
- 10 Assink, M., van der Put, C. E., Hoeve, M., de Vries, S. L., Stams, G. J. J., & Oort, F. J. (2015). Risk factors for persistent delinquent behavior among juveniles: A meta-analytic review. *Clinical Psychology Review, 42*, 47-61. doi:10.1016/j.cpr.2015.08.002
- AQ7
- Baer, D., Bhati, A., Brooks, L., Castro, L., La Vigne, N., & Mallik-Kane, K., ... Winterfield, L. (2006). *Understanding the Challenges of Prisoner Reentry: Research Findings from the Urban Institute's Prisoner Reentry Portfolio*. Retrieved from The Urban Institute: <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/411289-Understanding-the-Challenges-of-Prisoner-Reentry.PDF>
- 15
- Binswanger, I. A., Stern, M. F., Deyo, R. A., Heagerty, P. J., Cheadle, A., Elmore, J. G., & Koepsell, T. (2007). Release from prison—A high risk of death for former inmates. *New England Journal of Medicine, 356*, 157-165. doi:10.1056/NEJMs064115
- 20
- Box-Steffensmeier, J., & Jones, B. S. (2004). *Event history modeling*. New York, NY: Cambridge University Press.
- Burt, M., Aron, L. Y., Lee, E., & Valente, J. (2001). *Helping America's homeless: Emergency shelter or affordable housing?*. Washington, DC: Urban Institute.
- 25
- Burt, M. R. (1992). *Over the edge: The growth of homelessness in the 1980s*. New York, NY: Russell Sage.
- California Department of Corrections. (1997). *Evaluation of preventing parolee failure program*. Retrieved from National Criminal Justice Reference Services: <https://www.ncjrs.gov/pdffiles1/Digitization/180542NCJRS.pdf>
- 30
- Carson, E. A. (2016). *Prisoners in 2015*. Retrieved from The Bureau of Justice Statistics: <https://www.bjs.gov/content/pub/pdf/p15.pdf>
- Center for Disease Control and Prevention. (2013). *Healthy weight—It's not a diet, it's a lifestyle*. Retrieved from Center for Disease Control and Prevention: http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/index.html
- 35
- Center on Addiction and Substance Abuse. (2010). *Behind bars II: Substance abuse and America's prison population*. Retrieved from Center on Addiction and Substance Abuse: <http://www.casacolumbia.org/addiction-research/reports/substance-abuse-prison-system-2010>
- Comfort, M. (2007). Punishment beyond the legal offender. *Annual Review of Law and Social Science, 3*, 271-296. doi:10.1146/annurev.lawsocsci.3.081806.112829
- 40
- Culhane, D. P., Dejowski, E. F., Ibañez, J., Needham, E., & Macchia, I. (1994). Public shelter admission rates in Philadelphia and New York City: The implications of turnover for sheltered population counts. *Housing Policy Debate, 5*, 107-140. doi:10.1080/10511482.1994.9521155
- 45
- Doll, H. A., Petersen, S., & Stewart-Brown, S. L. (2000). Obesity and physical emotional well-being: Associations between body mass index, chronic illness, and the physical and mental components of the SF-36 questionnaire. *Obesity Research, 8*, 160-170. doi:10.1038/oby.2000.17

Geller, A., & Curtis, M. A. (2011). A Sort of Homecoming: Incarceration and the housing

5

AQ8

security of urban men. *Social Science Research*, 40, 1196-1213. doi:10.1016/j.ssresearch.2011.03.008

Gowan, T. (2002). The nexus: Homelessness and incarceration in two American cities. *Ethnography*, 3, 500-534. doi:10.1177/1466138102003004007

10

Gunnison, E., & Helfgott, J. B. (2011). Factors that hinder offender reentry success: A view from community corrections officers. *International Journal of Offender Therapy and Comparative Criminology*, 55, 2877-2877. doi:10.1177/0306624X09360661

Harding, D. J., Morenoff, J. D., & Herbert, C. (2013). Home is hard to find: Neighborhoods, institutions, and the residential trajectories of returning prisoners. *The ANNALS of the American Academy of Political and Social Science*, 647, 214-236. doi:10.1177/0002716213477070

15

Harding, D. J., Wyse, J. B., Dobson, C., & Morenoff, J. D. (2014). Making ends meet after prison. *Journal of Policy Analysis and Management*, 33, 440-470. doi:10.1002/pam.21741

20

Harlow, C. W. (2003). *Education and correctional populations*. Retrieved from The Bureau of Justice Statistics: <http://www.bjs.gov/content/pub/pdf/ecp.pdf>

Helfgott, J. (1997). Ex-offender needs versus community opportunity in Seattle, Washington. *Federal Probation*, 61, 12-24. Retrieved from http://heinonline.org/HOL/Page?handle=hein.journals/fedpro61&div=28&g_sent=1&collection=journals

25

Hombs, M. E. (2002). *Massachusetts housing and shelter alliance's research on corrections and homelessness*. Paper presented at the Annual Meeting of the National Alliance to End Homelessness, Washington DC.

James, D. J., & Glaze, L. E. (2006). *Mental health problems of prison and jail inmates*. Retrieved from The Bureau of Justice Statistics: <http://www.bjs.gov/content/pub/pdf/mhppji.pdf>

30

Jolliffe, D., Farrington, D. P., Piquero, A. R., Loeber, R., & Hill, K. G. (2017). **Systematic review of early risk factors for life-course-persistent, adolescence-limited, and late-onset offenders in prospective longitudinal studies.** *Aggression and Violent Behavior*, 33, 15-23. doi:10.1016/j.avb.2017.01.009

35

Knight, K. D., Simpson, D., & Morey, J. T. (2002). *An evaluation of the TCU drug screen*. Retrieved from National Criminal Justice Reference Services: <https://www.ncjrs.gov/pdffiles1/nij/grants/196682.pdf>

Kushel, M. B., Hahn, J. A., Evans, J. L., Bangsberg, D. R., & Moss, A. R. (2005). Revolving doors: Imprisonment among the homeless and marginally housed population. *American Journal of Public Health*, 95, 1747-1752. doi:10.2105/AJPH.2005.065094

40

Langan, P. A., & Levin, D. J. (2002). *Recidivism of prisoners released in 1994*. Retrieved from the Bureau of Justice Statistics: <http://www.bjs.gov/content/pub/pdf/rpr94.pdf>

45

LaVigne, N. G., Visher, C., & Castro, J. (2004). *Chicago prisoners' experiences returning home*. Retrieved from the Urban Institute: http://www.urban.org/UploadedPDF/311115_ChicagoPrisoners.pdf

Lean, M. E. J., Han, T. S., & Seidell, J. C. (1999). Impairment of health and quality of life using new US federal guidelines for the identification of obesity. *Archives of Internal Medicine*, 159, 837-843. doi:10.1001/archinte.159.8.837

50

Lee, B. A., Tyler, K. A., & Wright, J. D. (2010). The new homelessness revisited. *Annual Review of Sociology*, 36, 501-521. doi:10.1146/annurev-soc-070308-115940

Leginski, W. (2003). *The legacy of data in shaping homelessness policy*. Retrieved from the Joint Statistical Meetings presentation for the American Statistical Association: <http://www.amstat.org/sections/Srms/Proceedings/y2003/Files/JSM2003-000685.pdf>

55

- 5 Lutze, F. E., Rosky, J. W., & Hamilton, Z. K. (2014). Homelessness and reentry: A multi-site outcome evaluation of Washington state's reentry housing program for high risk offenders. *Criminal Justice and Behavior*, 41, 471-491. doi:10.1177/0093854813510164
- Massoglia, M. (2008a). Incarceration, health, and racial disparities in health. *Law and Society Review*, 42, 275-306. doi:10.1111/j.1540-5893.2008.00342.x
- Massoglia, M. (2008b). Incarceration as exposure: The prison, infectious disease, and other stress-related illnesses. *Journal of Health and Social Behavior*, 49, 56-71. doi:10.1177/002214650804900105
- 10 Massoglia, M., & Pridemore, W. A. (2015). Incarceration and health. *Annual Review of Sociology*, 41, 291-310. doi:10.1146/annurev-soc-073014-112326
- Massoglia, M., Remster, B., & King, R. D. (2011). Stigma or separation? Understanding the incarceration-divorce relationship. *Social Forces*, 90, 111-132. Retrieved from <https://muse.jhu.edu/article/464019/summary>
- 15 Metraux, S. (2008). Examining relationships between receiving mental health services in the Pennsylvania prison system and time served. *Psychiatric Services*, 59, 800-802. doi:10.1176/ps.2008.59.7.800
- Metraux, S., & Culhane, D. P. (2004). Homeless shelter use and re-incarceration following prison release. *Criminology and Public Policy*, 3, 139-160. Retrieved from http://heinonline.org/HOL/Page?handle=hein.journals/crpp3&div=21&g_sent=1&collection=journals
- 20 Metraux, S., Roman, C., & Cho, R. (2008). Incarceration and homelessness. In D. Dennis, G. Locke, & J. Khadduri (Eds.), *Toward understanding homelessness: The 2007 national symposium on homelessness research* (pp. 1-31). Washington DC: US Department of Housing and Urban Development.
- AQ9 25 Mumola, C. J. (1999). *Substance Abuse and Treatment, State and Federal Prisoners, 1999*. Retrieved from the Bureau of Justice Statistics: <http://bjs.ojp.usdoj.gov/content/pub/pdf/satsfp97.pdf>.
- Nelson, M., Deess, P., & Allen, C. (1999). *The first month out: Post-incarceration experiences in New York*. New York, NY: Vera Institute of Justice. Retrieved from http://archive.vera.org/sites/default/files/resources/downloads/first_month_out.pdf
- 30 Pager, D. (2003). The mark of a criminal record. *American Journal of Sociology*, 108, 937-975. doi:10.1086/374403
- Passero, Joanne. (1996). *The unequal homeless: Men on the streets, women in their place*. New York: Routledge.
- 35 Petersilia, J. (2003). *When prisoners come home: Parole and prisoner reentry*. Cambridge: Oxford University Press.
- Pettit, B., & Western, B. (2004). Mass imprisonment and the life course: Race and class inequality in U.S. incarceration. *American Sociological Review*, 69, 151-169. doi:10.1177/00016244040600021
- 40 ~~doi:10.1177/00016244040600021~~ The Pew Charitable Trusts: <http://www.pewtrusts.org/PewCharitableTrusts>. (2010). *Prison/Parole/Probation/Philadelphia Research Initiative: Philadelphia's Crowded, Costly Jails*. rev.pdf
- Pleggenkuhle, B., Huebner, B. M., & Kras, K. R. (2016). Solid start: Supportive housing, social support, and reentry transitions. *Journal of Crime and Justice*, 39(3), 380-397. doi:10.1080/0735648X.2015.1047465
- 45 Poulin, S. R., Metraux, S., & Culhane, D. P. (2008). The history and future of homeless management information systems (HMIS). In R. H. Macnamara (Ed.), *Homelessness in America* (pp. 171-179). Westport, CT: Praeger
- Raphael, S. (2011). Incarceration and prisoner reentry in the United States. *The ANNALS of the American Academy of Political and Social Science*, 635, 192-215. doi:10.1177/0002716210393321
- 50 Richie, Beth. (2001). Challenges incarcerated women face as they return to their communities: Findings from life history interviews. *Crime and Delinquency*, 47(3), 368-389. doi:10.1177/0011128701047003005
- Rodriguez, N., & Brown, B. (2003). *Preventing homelessness among people leaving prison*. Retrieved from the Vera Institute of Justice: http://www.prisonpolicy.org/scans/vera/209_407.pdf

- Roman, C. G., & Travis, J. (2006). Where will I sleep tomorrow? Housing, homelessness, and the returning prisoner. *Housing Policy Debate*, 17, 389-418. doi:10.1080/10511482.2006.9521574 5
- Rossman, S., Sridharan, S., Gouvis, C., Buck, J., & Morley, E. (1999). *Impact of the opportunity to succeed* (OPTS aftercare program for substance-abusing felons: Comprehensive final report). Washington, DC: The Urban Institute. 10
- Sampson, R. J., & Laub, J. H. (1997). A life-course theory of cumulative disadvantage and the stability of delinquency. In T. Thornberry (Ed.), *Advances in criminological theory* (pp. 1-29). New Brunswick, NJ: Transaction.
- AQ10 Schnittker, J., & John, A. (2007). Enduring stigma: The long-term effects of incarceration on health. *Journal of Health and Social Behavior*, 48, 115-130. doi:10.1177/002214650704800202 15
- Schnittker, J., Massoglia, M., & Uggen, C. (2012). Out and down: The effects of incarceration on psychiatric disorders and disability. *Journal of Health and Social Behavior*, 53, 448-464. doi:10.1177/0022146512453928
- Shannon, S. K. S., Uggen, C., Schnittker, J., Thompson, M., Wakefield, S., & Massoglia, M. (2017). The growth, scope, and spatial distribution of people with felony records in the United States, 1948 to 2010. *Demography*, 54, 1795-1818. doi: 10.1007/s11277-017-9277-2
- AQ11 Steiner, B., Makarios, M. D., & Travis, L. F. (2015). Examining the effects of residential situations and residential mobility on offender recidivism. *Crime and Delinquency*, 61, 375-401. doi:10.1177/0011128711399409 25
- Travis, J. (2005). *But they all come back: Facing the challenges of prisoner reentry*. Washington DC: Urban Institute.
- Tsai, J., & Rosenheck, R. A. (2012). Incarceration among chronically homeless adults: Clinical correlates and outcomes. *Journal of Forensic Psychology Practice*, 12, 307-324. doi:10.1080/15228932.2012.695653 30
- Uggen, C., Manza, J., & Thompson, M. (2006). Citizenship, democracy, and the civic reintegration of criminal offenders. *The ANNALS of the American Academy of Political and Social Science*, 605, 281-310. doi:10.1177/0002716206286898
- Urban Institute Justice Policy Center. (n.d.). *The studies*. Retrieved from <http://www.urban.org/policy-centers/justice-policy-center/projects/returning-home-study/studies> 35
- Visher, C. A., & Travis, J. (2003). Transitions from prison to community: Understanding individual pathways. *Annual Review of Sociology*, 29, 89-113. doi:10.1146/annurev.soc.29.010202.095931
- Wakefield, S., & Uggen, C. (2010). Incarceration and stratification. *Annual Review of Sociology*, 36, 387-406. doi:10.1146/annurev.soc.012809.102551 40
- Warner, C. (2015). On the move: Incarceration, race, and residential mobility. *Social Science Research*, 52, 451-464. doi:10.1016/j.ssresearch.2015.03.009
- Western, B. (2002). The impact of incarceration on wage mobility and inequality. *American Sociological Review*, 67, 526-546. Retrieved from http://www.jstor.org/stable/3088944?seq=1#page_scan_tab_contents 45
- Western, B., Braga, A. A., Davis, J., & Sirois, C. (2015). Stress and hardship after prison. *American Journal of Sociology*, 120, 1512-1547. doi:10.1086/681301
- Western, B., & Wildeman, C. (2009). The black family and mass incarceration. *The ANNALS of the American Academy of Political and Social Science*, 621, 221-242. doi:10.1177/0002716208324850 50
- Wheelock, D., & Uggen, C. (2008). Race, poverty and punishment: The impact of criminal sanctions on racial, ethnic, and socioeconomic inequality. In D. Harris & A. C. Lin (Eds.), *The colors of poverty: Why racial and ethnic disparities persist* (pp. 261-292). New York, NY: Russell Sage.
- AQ12 Yalowitz, S., Visher, C., & Solomon, A. (2008). *Returning home on parole: Former prisoners' experiences in Illinois, Ohio, and Texas*. Retrieved from the Urban Institute: <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/411744-Returning-Home-on-Parole-Former-Prisoners-Experiences-in-Illinois-Ohio-and-Texas.PDF> 55