

HOMELESS SHELTER USE AND REINCARCERATION FOLLOWING PRISON RELEASE*

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Research Summary:

This paper examines the incidence of and interrelationships between shelter use and reincarceration among a cohort of 48,424 persons who were released from New York State prisons to New York City in 1995–1998. Results show that, within two years of release, 11.4% of the study group entered a New York City homeless shelter and 32.8% of this group was again imprisoned. Using survival analysis methods, time since prison release and history of residential instability were the most salient risk factors related to shelter use, and shelter use increased the risk of subsequent reincarceration.

Policy Implications:

These findings show both homelessness and reincarceration to be substantial problems among a population of released prisoners, problems that fall into the more general framework of community reintegration. They also suggest that enhanced housing and related services, when targeted to a relatively small at-risk group among this population, have the potential to substantially reduce the overall risk for homelessness in the group.

KEYWORDS: Homelessness, Community Integration, Prison, Reincarceration, Housing

There has been explosive growth over the past two decades in both the prison and the homeless populations in the United States. The prison population has grown from 400,000 persons in 1982 (Gifford, 2002) to over 1.3 million in 1999 (Beck, 2000). Just as dramatic has been the reemergence of homelessness from its course to oblivion in the late 1970s (Bahr, 1967; Lee, 1980) to where there are now an estimated 444,000 persons homeless on a given day who receive services from 40,000 U.S. providers (Burt et al., 2001). In this study, we examine interrelationships between these two

* The authors acknowledge the Melville Foundation for their financial support for this research.

burgeoning systems, and specifically the incidence of shelter use and reincarceration for a cohort of 48,424 persons who were released, either outright or on parole, from New York State prisons to New York City in 1995–1998.

BACKGROUND

Escalating imprisonment rates have led to increasing numbers of released prisoners and fewer available resources for facilitating their reintegration into mainstream society (Petersilia, 2001). This contributes to a variety of social and economic problems for both society and the released prisoner, and it culminates in rates of recidivism such that 67% of prisoners released in 1994 committed a new crime within three years of release (Langan and Levin, 2002). Homelessness is another indicator of difficulty related to community reentry (Gowan, 2002), as it represents an outcome that is typically preceded by inadequate resources—social, economic, and individual—for attending to various housing, employment, and psychosocial problems.

However, there is a reciprocal component to the relationship between homelessness and incarceration, as homelessness can also be seen as contributing to an increased risk for imprisonment. As access to public spaces and interactions with the public have been restricted for the homeless (Foscarinis, 1996), many aspects of homeless life have been “criminalized” (Fisher, 1992), and homeless people may resort to illegal activities as a means of survival (Eberle et al., 2000; Snow et al., 1989). Many arrests incurred by homeless persons fall under “rabble management” (Irwin, 1985) as they involve misdemeanor and summary offenses such as panhandling, trespassing, or disturbing the peace (Fischer, 1992; Snow et al., 1989) and do not typically lead to prison sentences. However, this may understate the risk for imprisonment, as Solomon and Draine (1995) demonstrate how arrests of homeless persons for “lifestyle” offenses such as trespassing frequently lead to felony charges such as burglary, which are more likely to result in a prison sentence.

How extensive is the crossover between incarceration and homelessness? In the only study located which specifically examined prison to shelter crossover, the Massachusetts Housing and Shelter Alliance (Hombs, 2002) reported, using state corrections data, that 9.3%, 10.5%, and 6.3% of all state prison releases in Massachusetts directly preceded a shelter stay in 1997, 1998, and 1999, respectively. In a related population, Michaels et al. (1992) found that between 24% and 34% of jailed inmates they interviewed had been homeless at some time during the two months prior to arrest, and that 22% of the primary sample reported being homeless the night before arrest.

Looking at the homeless population, Schlay and Rossi (1992) summarize 20 studies that have data on prison use and report that, depending on the study, 4% to 49% of the homeless population report serving time in prison with a mean across the studies of 18%. A review by Eberle et al. (2000) reports that surveys showed prior rates of arrest and incarceration (including prisons and jails) among the homeless as ranging from 20% to 67%. Gelberg et al. (1988) in their survey of 529 homeless persons report that 24% of the sample had been convicted of a felony.

A related body of research has focused on homelessness and criminal history among persons with mental illness. Incarcerated persons with mental illness are at higher risk for subsequent homelessness and had higher numbers of prior arrests and arrests for violent offenses than did other inmates (Martell et al., 1995; Michaels et al., 1992; Richman et al., 1992; Vitelli, 1993). Alternatively, homeless mentally ill persons had higher rates of arrest and incarceration than did comparison groups consisting of both other homeless persons and mentally ill persons who are stably housed (Belcher, 1988; Gelberg et al., 1988).

This body of evidence suggests that homelessness contributes to a higher risk for incarceration and that, inversely, incarceration contributes to an increased risk of homelessness. Although it is intuitive and consistent with the literature to infer causality here, other factors may explain a substantial portion of this relationship. Demographically, compared with the U.S. adult population, both the homeless and prison populations are disproportionately male, young, and black (Burt et al., 2001; Culhane and Metraux, 1999; Langan and Levin, 2002; Mauer, 1999). Poverty and unemployment are also endemic to both populations. Among prisoners, 36% were unemployed at the time of their arrest (Western and Beckett, 1999) and 68% earned under \$15,000 per year (Lichtenstein and Kroll, 1996). Burt et al. (2001) paints an even bleaker economic picture for the homeless, showing median household income to be less than 50% of the poverty income guidelines, with less than half of the households (i.e., families or individuals) having any income from employment and less than 20% with any type of job that could be considered permanent. High rates of mental illness and substance abuse have also been widely documented in research on both populations (Burt et al., 2001; Conklin et al., 2000; Freudenburg, 2001; Lamb 1998; Peters et al., 1998). Finally, this convergence of characteristics also manifests spatially, as both incarceration and homelessness disproportionately affects persons in low-income urban black neighborhoods (Correctional Association of New York, 1990; Culhane et al., 1996; Wacquant, 2000).

Regardless of the extent to which these factors mediate the relationship

between incarceration and homelessness, the crossing over from incarceration to homelessness, and vice versa, threatens to transform spells of incarceration or homelessness into more long-term patterns of social exclusion (Gowan, 2002). In an illustration of this, Hopper et al. (1997) describes how a range of facilities, including shelters and prisons, take on a latent residential function for mentally ill persons, creating a *de facto* “institutional circuit” that “effectively substitute[s] for more stable and appropriate housing” (p. 659). From another perspective, Western and Beckett (1999) show how incarceration reduces job prospects among prisoners upon their release to society, creating economic disadvantage and, by extension, a higher risk for homelessness, where efforts at accessing employment are further impeded (Snow and Anderson, 1993). Especially when combined, both homelessness and incarceration, insofar as they represent stigmatizing conditions, can be seen to contribute to an increased level of social and economic marginalization in a process similar to what Link et al. (1989) have outlined for people with mental illness.

This study seeks to add to the modest body of research on the overlap between homelessness and incarceration through examining the use of shelters and prisons among a cohort of persons released to New York City from the New York State prison system. In doing so, the primary focus is on the rates by which persons released from prison experience subsequent homeless shelter stays and reincarceration. In addition, this study assesses whether there is evidence of a “revolving door” between prison and shelters—if a history of prior utilization of shelters and prisons are associated with an increased risk of using these facilities after release from prison. Finally, other factors that the literature suggests mediate homelessness and incarceration, such as demographics and prior criminal history, are also evaluated.

DATA

The data used in this study came from administrative databases that are maintained by the New York City (NYC) Department of Homeless Services (DHS) and the New York State Department of Correctional Services (DOCS). DHS administers the largest shelter network of any American city, providing emergency and long-term housing for an average, in 1998, of 21,500 homeless persons per night, two-thirds of whom were part of families (Metraux et al., 2001). This data set used here is one of the few large longitudinal databases on homelessness in the United States, and it provides a comprehensive record, for single adults, of New York City public shelter usage and basic demographic data on its users for the years 1987 through 2001. Homelessness in the following analyses is operationalized

as stays in the DHS system, which covers 85% of NYC shelter beds but does not cover homeless episodes that do not involve a shelter stay.

DOCS administers the third-largest state prison system in the United States with a census of 72,658 persons at the end of 1998. This reflected a 3.5% increase from 1997 and a 31.7% increase from 1990. As part of managing this system, DOCS maintains databases on state prison utilization and criminal history for all persons who are incarcerated in New York State. This study used data from these two data sets on all persons released from state prisons from 1995 through 1998 who were either paroled to a New York City county (i.e., borough), or if they were released without supervision, whose instant offense occurred in one of the New York City counties. For each person in the study group, data were available on all prison episodes and criminal convictions from 1980 to 2001. The study group was followed for a two-year period after their first prison release in the years 1995 through 1998, which will be referred to as the index stay.

The DOCS database used for this study was a combination of elements from the prison utilization and criminal history data sets, and it contained information on each individual's demographic characteristics (age, race/ethnicity, sex), data pertaining to the index prison episode (dates of arrest, entry into and release from prison; charges related to prison episode; type of release), and data on previous or subsequent prison episodes and arrests. Matches of DOCS observations to observations from the DHS data were based on common name, date of birth, sex, and social security number. When a match was determined, data on shelter use, both before and after the release date, were appended to the individual's DOCS record.

METHODS

The analyses here will examine the vulnerability of persons released from state prison to two measures of problematic community reintegration: subsequent shelter use and reincarceration. Specifically, both baseline rates of shelter use and prison readmission as well as associations between various factors to the risks of experiencing a shelter episode or a prison readmission will be examined. Event history methods—hazard curves and multivariate regression models—will be used for their ability to assess such temporal relationships. For the multivariate analyses, Cox proportional hazards models can assess the impact of the covariates of interest over time on the events in question while accommodating time-dependent covariates and the temporary removal of persons from the risk set (Allison, 1995). Two models, one for shelter entry and the other for prison reentry, are presented. In the former model, the hazard is for

experiencing a shelter stay for the two-year risk period after release, with the subjects being temporarily censored (i.e., taken out of the risk set) for the duration of any subsequent returns to prison. In the latter model, any subsequent prison reentries in the two-year risk period are considered as events, and the occurrence of a postrelease shelter episode is treated as a time-dependent covariate to assess whether the hazard of prison reentry is higher in the time period after the onset of an episode of shelter use. If the event of interest does not occur to an individual observation after two years, the observation is censored from the risk set.

RESULTS

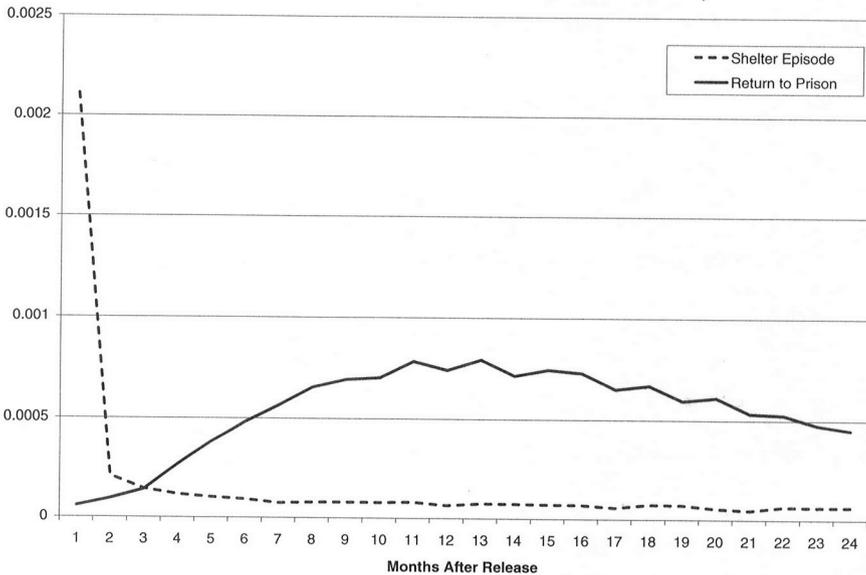
Overall, 11.4% of the 48,424 persons in the study group experienced a postrelease shelter stay and 32.8% returned to prison in the two-year risk period subsequent to the indexed prison release. Among the shelter events, over half (6.2% of overall group) occurred within the first month after release, with the rate of new events slowing considerably for the remainder of the risk period. In contrast, the number of reincarcerations was low at the beginning of the risk period and then increased steadily. As a result, the number of prison returns lagged behind the number of shelter stays until month 13, and it was not until month 17 that half of all prison returns had occurred. Figure 1, with hazard curves for entering a shelter and reentering prison, shows the hazard (i.e., risk) for entering a shelter to be high in the first two months and then overtaken by the increasing hazard of reentering prison.

Tables 1 through 3 provide descriptive statistics on the overall study group and the proportions that experienced a shelter stay or a prison episode, broken down by subgroup, during the risk period. On Table 1, the proportions of persons experiencing shelter stays in each age group became progressively higher as the groups got older, whereas the proportion of reincarcerations became progressively lower in the older two age-groups.¹ Blacks, who comprised a little more than half of the study group, were the only racial/ethnic subgroup to have proportions of persons with subsequent shelter stays (12.9%) and reincarcerations (34.6%) that were higher than the overall group proportions. Finally, the study group was overwhelmingly male (90.7%), with considerably smaller proportions of women experiencing subsequent shelter stays (8.7%) and reincarcerations (21.0%).

Table 2 displays characteristics directly related to each person's index prison episode. Among the findings, almost the whole group (96.2%) was released on parole, but the unsupervised group had lower proportions of

1. Results from tests of difference are not reported here because, due to the size of the study group, almost all differences are statistically significant.

FIGURE 1. MONTHLY HAZARD RATES FOR EXPERIENCING SHELTER STAYS AND RETURNS TO PRISON IN TWO-YEAR PERIOD AFTER RELEASE FROM NEW YORK STATE PRISON FOR PERSONS RELEASED TO NEW YORK CITY LOCATIONS, 1995-1998 (n = 48,424)



persons experiencing subsequent shelter stays (7.5%) and prison episodes (25.8%). Those with links to the mental health system, who comprised only 1.1% of the study group, had considerably higher proportions of shelter stays (18.1%) and reincarcerations (53.6%). Looking at the severity of the charges related to the index prison stay, the highest proportions of shelter stayers were among persons who served time for lower level felonies. Higher proportions of prison return were also found in this group. However, the highest proportion of returnees, 43.2%, was among the 2.1% of the study group that were imprisoned on misdemeanor charges. Higher proportions of shelter stays (13.5%) and reincarcerations (39.8%) were found among persons serving their index stay for a parole violation. Grouping principal charges by type of crime shows that all but 6.2% of the study group had a charge in at least one of the seven categories on Table 2. Among these categories, the highest proportions of persons with shelter use and prison returns were those with burglary convictions, 16.5% and 44.8%, respectively, whereas the lowest proportions were for persons with weapons convictions, 6.0% and 28.4%. Over half of the group served time

TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF STUDY GROUP AND PROPORTIONS OF PERSONS WITH POSTRELEASE SHELTER AND PRISON EPISODES (n = 48,424)

	% of Study Group	% w/ Postrelease Shelter Stay	% w/ Postrelease Prison Stay
Overall	100.0%	11.4%	32.8%
Age			
18-29	39.7%	6.4%	34.7%
30-39	41.0%	13.0%	34.2%
40-54	17.6%	17.9%	26.6%
55+	1.7%	22.6%	18.0%
Race/Ethnicity			
Black (non-hisp)	53.0%	12.9%	34.6%
Hispanic	39.8%	9.8%	30.8%
White	6.2%	9.7%	30.7%
Other	1.0%	9.1%	28.3%
Sex			
Male	90.7%	11.7%	34.0%
Female	9.3%	8.7%	21.0%

for drug offenses, with those serving time for possession having lower proportions experiencing shelter stays (10.0% to 11.8%) and reincarcerations (27.1% to 29.7%) compared with those who served time for distribution charges.

Table 3 shows results related to shelter, prison, and conviction histories for members of the study group prior to the index incarceration. Of the 6.5% who had shelter use histories in the two-year period prior to the index incarceration (and after 1986), large proportions experienced subsequent shelter episodes (45.1%) and prison episodes (42.0%). Over one half of the study group had a prior history of imprisonment, and this subgroup subsequently had higher proportions entering shelters (12.9%) and returning to prison (39.2%). Looking at prior conviction records, the groups with histories of misdemeanor and felony convictions both had higher proportions of persons with shelter stays and repeat imprisonments.

Table 4 contains the results from two multivariate event history models examining factors related to experiencing shelter stays (i.e., shelter model) and repeat prison stays (i.e., reincarceration model). These results show that prior prison and shelter use were significantly associated with the hazard (i.e., risk) of subsequently using these institutions. The hazard ratio (HR) of experiencing a shelter stay increased by a magnitude of 4.9 with a

TABLE 2. CHARACTERISTICS RELATED TO THE INDEX PRISON RELEASE OF PERSONS IN THE STUDY GROUP (n = 48,424)

	<u>% of Study Group</u>	<u>% w/ Post-Release Shelter Stay</u>	<u>% w/ Post-Release Prison Stay</u>
Overall Study Group	100.0%	11.4%	32.8%
Release Type			
Parole	96.2%	11.6%	33.0%
Unsupervised	3.8%	7.5%	25.8%
Admitted from or Released to Mental Healthcare System ^a	1.1%	18.1%	53.6%
Year of Index Prison Release			
1995	32.4%	10.3%	36.7%
1996	26.3%	11.6%	32.2%
1997	22.6%	11.7%	30.7%
1998	18.8%	12.7%	29.1%
Length of Sentence			
0 to 6 months	13.5%	11.4%	38.8%
6 mos. to 1 year	21.7%	11.1%	30.8%
1 year to 2 years	26.6%	12.2%	34.1%
2 years or longer	38.3%	11.0%	30.9%
Severity of Charge			
Class A felony	2.4%	4.2%	7.4%
Class B felony	19.4%	9.9%	27.0%
Class C felony	24.8%	11.2%	32.4%
Class D felony	35.4%	12.2%	35.0%
Class E felony	16.0%	13.1%	38.0%
Misdemeanor	2.1%	9.9%	43.2%
Parole Violation	15.7%	13.5%	39.8%
Principal Conviction			
Assault	3.5%	12.8%	30.5%
Burglary	7.2%	16.5%	44.8%
Drug-related Charges—any	51.7%	11.3%	29.2%
Distribution	39.7%	11.8%	29.7%
Possession	11.7%	10.0%	27.1%
Robbery	19.1%	10.7%	38.3%
Theft	2.9%	11.5%	44.1%
Weapons	15.0%	6.0%	28.4%
Violent Felony Offense	29.2%	10.6%	34.1%
Other Offense	6.2%	11.4%	36.6%

^a All persons in this category were released on parole.

TABLE 3. SHELTER, PRISON, AND CRIMINAL HISTORIES OF STUDY GROUP (n = 48,424)

	% of Study Group	% w/ Post-Release Shelter Stay	% w/ Post-Release Prison Stay
Overall	100.0%	11.4%	32.8%
Prior Shelter Stay			
Yes	6.6%	45.1%	42.0%
No	93.4%	9.0%	32.1%
Prior Prison Stay			
Yes	52.3%	12.9%	39.2%
No	47.7%	9.8%	25.7%
Prior Felony Convictions			
0	35.6%	9.5%	28.0%
1	33.5%	11.8%	31.8%
2 or more	30.9%	13.2%	39.3%
Prior Misdemeanor Convictions			
0	44.7%	8.0%	26.5%
1-10	49.4%	13.4%	36.5%
11 or more	5.9%	20.7%	48.2%

history of prior shelter use, and increased more than fivefold ($HR = 5.28$) upon release from a reincarceration during the risk period. However, incarcerations prior to the index stays had a nonsignificant effect on the hazard for experiencing a shelter stay during the risk period. Turning to the reincarceration model, shelter use had significant effects both when it occurred prior to the index stay ($HR=1.23$) and in the risk period ($HR=1.17$), as did having a history of pre-index incarceration ($HR=1.35$).

The demographic covariates all had significant effects on the dependent variable in both models. Being of black race increased the hazard of experiencing a shelter stay ($HR = 1.22$) and, more modestly, of being reincarcerated ($HR = 1.05$). Being male also was associated with increased HRs: 1.47 in the shelter model and 1.53 in the prison model. Age had significant effects but in opposite directions in the two models. Thus, for each year of increased age, the hazard of experiencing a shelter stay increased 4% ($HR = 1.04$), whereas the hazard of reincarceration was reduced by 3% ($HR = 0.97$).

There were also numerous effects among the other covariates related to the index prison stay and prior conviction history. The severity of the conviction associated with the index stay was inversely related to the hazards in both models, with the only difference being that those imprisoned on misdemeanor convictions had a significantly higher hazard only in the

reincarceration model (HR = 1.37). Being released on parole significantly increased the hazards for the shelter stay (HR = 1.76) and the reincarceration (HR = 1.92) models, whereas being admitted from or released to the mental healthcare system significantly increased the hazard only in the reincarceration model (HR = 2.31). The later the year of release from the index stay, the higher was the hazard of experiencing a shelter stay and the lower was the hazard of experiencing a reincarceration.

Looking at further covariates related to criminal history, being imprisoned on a parole violation increased the hazards for both a shelter stay and a reincarceration (HR = 1.22 and HR = 1.23, respectively), as did imprisonment for a burglary conviction (HR = 1.16 and HR = 1.12, respectively). On the other hand, a weapons-related conviction lowered both hazards (HR = 0.59 and HR = 0.75, respectively). Drug-related convictions and assault convictions reduced the hazard only in the reincarceration model (HR = 0.74 for assault; HR = 0.82 for drug distribution; and HR = 0.76 for drug possession), whereas a violent felony offense increased the hazard only in the shelter model (HR = 1.15). Finally, felony convictions prior to the index stay decreased the hazard in the shelter model but increased the hazard in the reincarceration model, and prior misdemeanor convictions increased the hazard in the shelter model and had significant, but mixed, effects in the prison model.

DISCUSSION AND POLICY IMPLICATIONS

This paper finds that, of a cohort of 48,424 persons released between 1995 and 1998 from New York State prisons to New York City, within two years, 5,510 (11.4%) entered a New York City homeless shelter and 15,866 (32.8%) returned to a New York State prison. These rates are comparable with those reported in Massachusetts for prison to shelter crossover (Hombs, 2002) and for reincarceration both in New York State (Criminal Justice Policy Council, 2000) and nationwide (Langan and Levin, 2002).

Although there is consensus that the rates of rearrest and reincarceration for released prisoners is problematically high (Butterfield, 2002; Petersilia, 2001), there is a lack of context for the prison to shelter findings. However, some perspective on the relative magnitude of this institutional crossover might be gained through a comparison with the proportions of persons entering shelter after release from inpatient psychiatric care. Research by one of the authors has shown, using methods similar to those featured here, that 8.5% of a 1994 discharge cohort of New York State psychiatric hospital patients coming from or discharging to a New York City zipcode used New York City shelters within two years of their discharge (Metraux, 1998). In a review of the literature, Kuno et al. (2000) reported that studies following mentally ill persons from inpatient

care into the community have variously found the proportion of those experiencing homelessness to range from 8% to 22%. Judging from these findings, the incidence of cross-institutionalization to shelters appears to be similar within both populations.

Our findings indicate that a record of shelter use increases the risks, after release from prison, for both shelter use and reincarceration. On the one hand, this suggests that the hiatus spent in prison fails to alleviate, and likely exacerbates, residential instability, and that those bearing the highest risk for homelessness upon release from prison have had a history of residential instability prior to their incarceration. On the other hand, past shelter use, both before and after the index prison stay, also is associated with an increased risk of reincarceration. This suggests that the effects of homelessness manifest themselves in the prison system as well.

Differing trajectories of risk after prison release also are consistent with a serial pattern of shelter use and incarceration. The risk of shelter use is greatest upon community reentry and subsides substantially after the initial two months after release from prison. This is consistent with more general findings that the initial period after release from prison is critical for successful community reintegration (Nelson et al., 1999; Travis et al., 2001). Although shelter use appears to reflect difficulty resettling into the community, the risk for reincarceration increases gradually after prison release and appears to be an issue more related to remaining in the community.

Changes in age are associated with changes in risks for both shelter use and reincarceration, but again the nature of each association differs. Older age is associated with increased risk for shelter stays, whereas younger age is associated with increased risk for reincarceration. One explanation for this finding is that as persons "age out" of their criminal career, their vulnerability for homelessness increases. In this process, the physical and social trappings of shelters may substitute for prisons (Dordick, 1997) or, alternatively, older former prisoners may become homeless due to the reduced prospects they face in the mainstream economy (Western and Beckett, 1999). Additionally, the differences in risk for the years of release further suggest a temporal interrelationship between the two systems, as the progressively increasing risk of shelter use contrasts with the progressively decreasing risk of reincarceration.

Criminal histories also show different associations with shelter use and reincarceration, but it is more difficult to draw conclusions here. Prior convictions are associated with increased risk—but although prior felony convictions are associated with increased risk for reincarceration, they are associated with lower risk for subsequent shelter use. Prior misdemeanor convictions, in contrast, are associated with increased risk for shelter use but show no clear pattern for reincarceration. This lends some support to

the assertion that it is the “rabble” element among the released prisoners, those incarcerated multiple times for lesser offenses and possibly incarcerated as much due to their chronic deviant status as for the severity of their crimes, who are more likely to use shelters upon their release from prison (Irwin, 1985).

Especially when considering the risk for shelter use among released prisoners, there are likely to be mediating factors that are not apparent from these results. For example, released prisoners may enter shelters not because they have nowhere else to go, but rather because doing so can get them declared as “homeless” and thus may facilitate access to other sources of housing. Such “statutory homelessness” (O’Flaherty 1997) has been pointed out primarily among families in New York City (e.g., Ellickson, 1990). Although no evidence was found that shelter use would lead to advantages in procuring housing (or any other service), Gowan (2002) documents this dynamic as occurring among released prisoners in other cities. Much, however, is still unknown about the specific pathways from prison to shelter, and more research is needed to provide context for the results presented here. It also militates against attributing causality to the associations reported here.

Surprisingly, indicators of mental health system involvement did not have any association with the risk for shelter use. This nonassociation comes despite an elevated proportion of shelter use in this subgroup, and it contrasts with findings that this indicator is associated with 2.3-fold increase in the risk for reincarceration. Although the shelter finding supports the contention that the relationship between mental illness and homelessness is mediated by other socioeconomic factors (Draine et al., 2002), the prison finding suggests that, once incarcerated, having mental illness contributes directly to an increased risk of repeat incarcerations. This finding should be interpreted cautiously, however, given that mental illness could only be ascertained in the data available for this study if a study group member’s prison stay was directly before or after their stay in a mental health facility. Only 1.1% of the study was identified as mentally ill by this measure, a proportion that, according to the research in forensic mental health, vastly under-represents the number of persons with severe mental illness among incarcerated populations (Lamb and Weinberger, 1998). The unavailability of clinical measures of mental illness (as well as for substance abuse) is one of the limitations of this study, and it stands counter to the large degree of attention these issues have received in research on both incarceration and homelessness.

The generalizability of these findings to settings other than New York City also warrants consideration. Although New York City has the largest shelter system in the United States, when taken as a proportion of its population, its rates of shelter use are comparable if not lower than other

major U.S. cities (Metraux et al., 2001). Similarly, although New York State has one of the largest inmate populations in the United States, its rate of incarceration ranks it among the middle of the states (U.S. Department of Justice, 2002). Although such dynamics as housing and employment differ from city to city and will affect the degree to which these results can be applied elsewhere, there is no indication that contextual factors preclude these findings from being considered more generally. However, as with all research, the only way to conclusively establish generalizability is to replicate this study elsewhere, something that has been made eminently more feasible with the increased availability and standardization of administrative data (Culhane and Metraux, 1997).

These findings carry readily apparent policy implications. Homelessness takes its place among an assortment of readjustment problems faced by prisoners upon their release into the community (Petersilia, 2001; Travis et al., 2001). Given that released prisoners are most at risk for shelter use immediately after release, monitoring this migration across institutions can provide an early indicator on the success of reintegration more generally. Such monitoring can be done on a regular, systematic basis by crossing administrative records from state prison systems with those from an expanding set of jurisdictions that are able to track shelter utilization.

On a more individual level, these results suggest that efforts to prevent homelessness among released prisoners should focus on the transitional period occurring right after prison and should focus on persons who demonstrate a history of unstable housing. The limited nature of such a process, where screening persons would considerably narrow the identified risk group and services would be concentrated in the initial months after release, should render the intervention as relatively practical to implement.

Implicit in our findings, which suggest that shelter use contributes to the risk for reincarceration, is that homelessness contributes to the costs associated with reincarceration. More research would be needed to more conclusively document such a link, but research among mentally ill homeless has demonstrated that homelessness involves substantial costs incurred by this population across the criminal justice system and other public systems, and that providing housing and support services lowers these costs considerably (Culhane et al., 2002). Similar findings among the released prisoner population would provide a compelling fiscal rationale for implementing housing and support services for those released prisoners who are at risk for homelessness.

As things now stand, the shelter system provides housing and related services for a substantial number of released prisoners, meaning that the related costs shift from the criminal justice system to the homeless services system. Ironically, these findings indicate that the current arrangements

also cost the criminal justice system, insofar as experiencing a shelter stay is associated with increased risk for subsequent reincarceration. This underscores the importance of considering whether the criminal justice system should get more involved in providing housing and related services for released prisoners, much in the same way the mental health services system adopted this role for deinstitutionalized persons with mental illness in response to the homelessness crisis (Metraux, 1998). However, although such a reframing of homelessness as a criminal justice issue could leverage additional resources, it would also require a reassessment of appropriate boundaries and roles for criminal justice services in the community.

Regardless of where the services come from, the key intervention point appears to be at the time of release. Housing, however, is not the only problem the released prisoner typically faces upon release. Other problems include obtaining identification, securing Medicaid coverage and other benefits, finding employment, and locating treatment for mental illness or other health conditions (Corporation for Supportive Housing 2003a; Travis et al., 2001). Effective housing programs for released prisoners will typically address these problems in an integrated fashion, although there are a multitude of different philosophies that guide such housing initiatives (Hals, 2003). One approach that has shown effectiveness in preventing at-risk populations, including released prisoners, from becoming homeless is supportive housing, which consists of permanent, subsidized housing coupled with support services that assist tenants with accessing needed community services and developing appropriate living skills (Corporation for Supportive Housing, 2003b; Greiff, Proscio & Wilkins, 2003).

Although our findings show high rates of shelter use and reincarceration among persons released from prison, and identifies specific factors that increase the risk for these events among subgroups in this population, this study cannot ascertain causal relationships between incarceration and shelter use in the general population. Doing so would require the availability of nonincarcerated control groups, and it is an area for future research. Further limitations of this study include those that are inherent to using administrative data for research applications. This includes access to a limited range of variables, in this case, limited to demographic measures, measures of homelessness, and measures pertaining to criminal justice system involvement. As mentioned earlier, clinical measures pertaining to substance abuse and mental illness would have been of interest in such a study, as would measures of family and social networks, and economic and vocational measures. One other limitation of this study is that it can only determine matches across systems insofar as the identifying variables are consistent across the homeless and prison datasets.

Although the prison system makes a substantial effort to ensure that it has correct identifying information on its prisoners, insofar as members of the study group provide different identifying information to the shelter system their records will not be matched across systems. And finally, the data used in this study could not detect that a person became homeless unless he used a New York City municipal shelter, nor could it detect whether a person returned to prison unless she was imprisoned through the New York State prison system. Thus, the rates of shelter use and reincarceration reported in this study are doubtlessly conservative, but it is uncertain to what degree.

In summary, these findings show both homelessness and reincarceration to be substantial problems among a population of released prisoners, problems that fall into the more general framework of community reintegration. They also suggest that enhanced housing and related services, when targeted to a relatively small at-risk group among this population, have the potential to substantially reduce the overall risk for homelessness in the group.

REFERENCES

- Allison, Paul D.
1995 Survival Analysis Using the SAS® System. Cary, N.C.: SAS Institute, Inc.
- Bahr, Howard M.
1967 The gradual disappearance of skid row: Some ecological evidence. *Social Problems* 15:41-145.
- Beck, Allen J.
2000 Prisoners in 1999. Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics.
- Belcher, John A.
1988 Are jails replacing the mental health system for the homeless mentally ill? *Community Mental Health Journal* 24:185-195.
- Burt Martha R., Laudan Y. Aron, Edgar Lee, and Jesse Valente
2001 Helping America's Homeless: Emergency Shelter or Affordable Housing? Washington, D.C.: Urban Institute.
- Butterfield, Fox
2002 Study shows building prisons did not prevent repeat crimes. *New York Times* (June 3):A1.
- Conklin Thomas J., Thomas Lincoln, and Robert W. Tuthill
2000 Self-reported health and prior health behaviors of newly admitted correctional inmates. *American Journal of Public Health* 90:1939-1941.
- Corporation for Supportive Housing
2003a Developing Housing and Services for Criminal Justice-Related Supportive Housing: Guide to Re-Entry Supportive Housing. New York: Author.

- 2003b Developing Housing and Services for Criminal Justice-Related Supportive Housing: Profiles of Successful Development Financing. New York: Author.
- Correctional Association of New York
1990 Young Men Under Criminal Justice Custody in New York State. New York: Author.
- Criminal Justice Policy Council
2000 Update in Statewide Recidivism Rates of Offenders Released from Texas Prisons. Austin, Tex.: Author.
- Culhane, Dennis P., Chang-Moo Lee, and Susan Wachter
1996 Where the homeless come from: A study of the prior address distribution of families admitted to public shelters in New York City and Philadelphia. *Housing Policy Debate* 7:327-360.
- Culhane, Dennis P. and Stephen Metraux
1999 Assessing relative risk for homeless shelter usage in New York City and Philadelphia. *Population Research and Policy Review* 18:219-236.
1997 Where to from here: A policy research agenda based on the analysis of administrative data. In Dennis P. Culhane and Steven P. Hornburg, (eds.), *Understanding Homelessness: New Policy and Research Perspectives*. Washington, D.C.: Fannie Mae Foundation.
- Culhane, Dennis P. Stephen Metraux, and Trevor R. Hadley
2002 The Impact of Supportive Housing for Homeless People with Severe Mental Illness on the Utilization of the Public Health, Corrections, and Emergency Shelter Systems: The New York-New York Initiative. *Housing Policy Debate* 13:107-163.
- Dordick, Gwendolyn
1997 *Something Left to Lose: Personal Relations and Survival Among New York's Homeless*. Philadelphia: Temple University Press.
- Draine, Jeffrey, Mark S. Salzer, Dennis P. Culhane, and Trevor R. Hadley
2002 Putting social problems among persons with mental illness in perspective: crime, unemployment and homelessness. *Psychiatric Services* 53:565-573.
- Eberle, Margaret, Deborah Kraus, Steve Pomeroy, and David Hulchanski
2000 *Homelessness - Causes and Effects: A Review of the Literature, Vol. 1*. Vancouver: British Columbia Ministry of Social Development and Economic Security.
- Ellickson, Robert C.
1990 The Homelessness Muddle. *Public Interest* 99:45-60.
- Fischer, Pamela J.
1992 The criminalization of homelessness. In Marjorie J. Robertson (ed.), *Homelessness: A National Perspective*. New York: Plenum Press.
- Foscarinis, Maria
1996 Downward spiral: Homelessness and its criminalization. *Yale Law and Policy Review* 14:1-63.
- Freudenberg, Nicholas
2001 Jails, prisons, and the health of urban populations: A review of the impact of the correctional system on community health. *Journal of Urban Health* 78:214-235.

- Gelberg, Lillian, Lawrence S. Linn, and Barbara D. Leake
1988 Mental health, alcohol and drug use, and criminal history among homeless adults. *American Journal of Psychiatry* 145:191-196.
- Gifford, Sidra Lea
2002 *Justice Expenditure and Employment in the United States, 1999*. Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics.
- Gowan, Teresa
2002 The nexus: Homelessness and incarceration in two American cities. *Ethnography* 3:500-534.
- Greiff, Debbie, Tony Proscio, and Carol Wilkins
2003 *Laying a New Foundation: Changing the Systems that Create and Sustain Supportive Housing*. New York: Corporation for Supportive Housing.
- Hals, Kristina
2003 *From Locked Up to Locked Out: Creating and Implementing Post-Release Housing for Ex-Prisoners*. Seattle: AIDS Housing of Washington.
- Hombs, Mary Ellen
2002 Massachusetts Housing and Shelter Alliance's research on corrections and homelessness. Presented at the Annual Meeting of the National Alliance to End Homelessness, Washington, D.C., July 18.
- Hopper, Kim, John Jost, Terri Hay, Susan Welber, and Gary Haugland
1997 Homelessness, severe mental illness, and the institutional circuit. *Psychiatric Services* 48:659-665.
- Irwin, John
1985 *The Jail: Managing the Underclass in American Society*. Berkeley: University of California Press.
- Kuno, Eri, Aileen B. Rothbard, June M. Averyt, and Dennis P. Culhane
2000 Homelessness among persons with severe mental illness in an enhanced community-based mental health system. *Psychiatric Services* 51:1012-1016.
- Lamb, H. Richard and Linda E. Weinberger
1998 Persons with severe mental illness in jails and prisons: A review. *Psychiatric Services* 49:483-492.
- Langan, Patrick A. and David J. Levin
2002 *Recidivism of prisoners released in 1994*. Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics.
- Lee, Barrett A.
1980 The disappearance of skid row: Some ecological evidence. *Urban Affairs Quarterly* 16:81-107.
- Lichtenstein, Alexander C. and Michael Kroll
1996 *The fortress economy: The economic role of the U.S. prison system*. In Elihu Rosenblatt (ed.), *Criminal Injustice: Confronting the Prison Crisis*. Boston, Mass.: South End Press.
- Link, Bruce G., Frances T. Cullen, Elmer Struening, Patrick E. Shrout, and Bruce P. Dohrenwend

- 1989 A modified labeling theory approach to mental disorders: An empirical assessment. *American Sociological Review* 54:400-423.
- Martell, Daniel A., Richard Rosner, and Ronnie B. Harmon
 1995 Base-rate estimates of criminal behavior by homeless mentally ill persons in New York City. *Psychiatric Services* 46:596-601.
- Mauer, Marc
 1999 *Race to Incarcerate*. New York: New Press.
- Metraux, Stephen
 1998 Rates of homelessness among persons released from New York State psychiatric hospitals. University of Pennsylvania Center for Mental Health Policy and Services Research. Unpublished paper.
- Metraux, Stephen, Dennis P. Culhane, Stacy Raphael, Matthew White, Carol Pearson, Eric Hirsch, Patricia Ferrell, Steve Rice, Barbara Ritter, and J. Stephen Cleghorn
 2001 Assessing homeless population size through the use of emergency and transitional shelter services in 1998: Results from the analysis of administrative data in nine US jurisdictions. *Public Health Reports* 116:344-352.
- Michaels, David, Stephen R. Zoloth, Phil Alcabes, Charles A. Braslow, and Steven Safyer
 1992 Homelessness and indicators of mental illness among inmates in New York City's correctional system. *Hospital and Community Psychiatry* 43:150-155.
- Nelson, Marta, Perry Deess, and Charlotte Allen
 1999 *The First Month Out, Post-Incarceration Experiences in New York City*. New York: Vera Institute of Justice.
- O'Flaherty, Brendan
 1997 *Making Room: The Economics of Homelessness*. Cambridge, Mass.: Harvard University Press.
- Peters Roger H., Paul E. Greenbaum, John F. Edens, Chris R. Carter, and Madeline M. Ortiz
 1998 Prevalence of DSM-IV substance abuse and dependence disorders among prison inmates. *American Journal of Drug and Alcohol Abuse* 24:573-587.
- Petersilia, Joan
 2001 Prisoner re-entry: Public safety and reintegration challenges. *The Prison Journal* 81:360-375.
- Richman, Barry J., Antonio Convit, and Daniel A. Martell
 1992 Homelessness and the mentally ill offender. *Journal of Forensic Sciences* 37:932-937.
- Schlay, Anne B. and Peter H. Rossi
 1992 Social science research and contemporary studies of homelessness. *Annual Review of Sociology* 18:129-160.
- Snow, David A. and Leon Anderson
 1993 *Down on Their Luck: A Study of Homeless Street People*. Berkeley: University of California Press.

- Snow, David A., Susan G. Baker, and Leon Anderson
1989 Criminality and homeless men: An empirical assessment. *Social Problems* 36:532-549.
- Solomon, Phyllis and Jeffrey Draine
1995 Issues in serving the forensic client. *Social Work* 40:25-33.
- Travis, Jeremy, Amy L. Solomon, and Michelle Waul
2001 The Dimensions and Consequences of Prisoner Reentry. Washington, D.C.: Urban Institute.
- United States Department of Justice
2002 Prisoners in 2001. Washington, D.C.: Author.
- Vitelli, Romeo
1993 The homeless inmate in a maximum security prison setting. *Canadian Journal of Criminology* 35:323-331.
- Wacquant, Loic
2000 Deadly symbiosis: When ghetto and prison meet and mesh. *Punishment and Society* 3:95-134.
- Western, Bruce and Katherine Beckett
1999 How unregulated is the US labor market? The penal system as a labor market institution. *American Journal of Sociology* 104:1030-1060.

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