



National Institute of Justice

Restrictive Housing in the U.S.

Issues, Challenges, and Future Directions

CHAPTER 7

Critical Research Gaps in Understanding the Effects of Prolonged Time in Restrictive Housing on Inmates and the Institutional Environment

Daniel P. Mears, Ph.D.

The following chapter was originally published in *Restrictive Housing in the U.S.: Issues, Challenges, and Future Directions* (NCJ 250315). For more information about that volume, visit www.NIJ.gov/restrictive-housing-book.

Cite this chapter as: Mears, D.P. (2016). Critical Research Gaps in Understanding the Effects of Prolonged Time in Restrictive Housing on Inmates and the Institutional Environment. NCJ 250322. In *Restrictive Housing in the U.S.: Issues, Challenges, and Future Directions*. Washington, D.C.: U.S. Department of Justice, National Institute of Justice.

**U.S. Department of Justice
Office of Justice Programs
810 Seventh St. N.W.
Washington, DC 20531**

Loretta E. Lynch

Attorney General

Karol V. Mason

Assistant Attorney General

Nancy Rodriguez, Ph.D.

Director, National Institute of Justice

This and other publications and products of the National Institute of Justice can be found at:

National Institute of Justice

Strengthen Science • Advance Justice

<http://www.NIJ.gov>

Office of Justice Programs

Innovation • Partnerships • Safer Neighborhoods

<http://www.ojp.usdoj.gov>

The National Institute of Justice is the research, development and evaluation agency of the U.S. Department of Justice. NIJ's mission is to advance scientific research, development and evaluation to enhance the administration of justice and public safety.

The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance; the Bureau of Justice Statistics; the Office for Victims of Crime; the Office of Juvenile Justice and Delinquency Prevention; and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking.

Opinions or conclusions expressed in this volume are those of the authors and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

CHAPTER 7

Critical Research Gaps in Understanding the Effects of Prolonged Time in Restrictive Housing on Inmates and the Institutional Environment

Daniel P. Mears, Ph.D.

Florida State University College of Criminology and Criminal Justice

Introduction

This white paper reviews the state of research on the effects of prolonged time in restrictive housing on inmates and the institutional environment of prison systems. It then identifies prominent research gaps that warrant attention in efforts to guide future policy. The summary assessment is that there exists too little credible research to state with confidence the effectiveness of restrictive housing. The practice may produce benefits, such as improved inmate behavior and reduced recidivism. It also may produce harms, including worsened inmate behavior and mental health and higher rates of recidivism. Additional benefits and harms may exist, but extant research has not provided a consistent scientific basis for establishing them.

What is the context for evaluating the effects of restrictive housing? Prison systems seek to incapacitate and rehabilitate individuals who have committed crimes and to do so in a way that protects society, prison personnel, and inmates. Achieving these goals is challenging. Those who go to prison do not want to be there and may be prone to violence and violating rules. They also may act violently or break rules in response to prison conditions. How prisons are run may affect inmates as well. In addition, the prison system may implement rules, programs, services, vocational training, educational training, and other measures that may decrease or increase misconduct. When prison systems work well, inmates, officers, and other staff are safe; programming, services, and treatment are provided; and inmates returned to society are less likely to reoffend. When these systems do not work well, inmates and officers are harmed; programming, services, and treatment are minimal; and recidivism rates are high.

Corrections officials employ different strategies for promoting safety and order. One strategy is restrictive housing, which typically involves confining inmates who may pose a threat to prison safety and order alone in a single cell for varying periods of time. Various terms have been used to capture this idea — supermaximum (“supermax”) housing, administrative segregation, extended isolation, restrictive housing, and so on. Inmates housed in this way may be confined to their cells for up to 23 hours per day and have few privileges. This housing is costly to build and operate, and yet may be critical to maintaining safety and order. Alternatively, it may be ineffective, harmful, or less cost-efficient than alternative strategies for managing inmates and prison systems.

The use of restrictive housing increased dramatically in recent decades. Its use was justified in part by the idea that it would help manage disruptive and violent inmates (King, 1999; Riveland, 1999; Briggs et al., 2003; Neal, 2003; Bruton, 2004; Browne et al., 2011; Mears, 2013; Ross, 2013; Baumgartel et al., 2015; Richards, 2015). In this time, concerns have been raised about the need, effectiveness, or appropriateness of this type of housing. These concerns have escalated in recent years, centering on its potential harms and overuse. A recent national estimate indicates that as many as one in five inmates in prison or jail spend time in restrictive housing (Beck, 2015:1). Members of the U.S. Supreme Court and Congress have called for reforms, as have the President and the Federal Bureau of Prisons. In response, state departments of corrections have begun reviewing their policies for placing inmates in restrictive housing (Durbin, 2012, 2013; Goode, 2012; Mears, 2013; U.S. Government Accountability Office, 2013; McGinnis et al., 2014; Baker & Goode, 2015; Baumgartel et al., 2015; Obama, 2016; U.S. Department of Justice Work Group, 2016). Central to discussions about this type of prison housing are questions about the conditions under which it is appropriate (leading to improved outcomes) and the conditions under which it is inappropriate (potentially leading to adverse outcomes).

Table 1. The State of Research on Restrictive Housing's Impact on Inmates, Prisons, and Society

Question	Answer
1. Definition?	Varied; no clear consensus.
2. Goals?	Varied; no clear consensus.
3. Need?	Unclear.
4. Theory?	Unclear and varied.
5. Implementation?	Largely unknown.
6. Impacts?	Largely unknown; adverse effects on inmate mental health seem likely.
7. Cost-efficiency?	Unknown relative to various other approaches for achieving system goals.
8. Critical research gaps?	Many.

The limited evidence of restrictive housing's effectiveness stems from the fact that few credible studies of impact exist. It also stems from more fundamental issues — a lack of consensus about the definition of such housing, ambiguity about its goals, a lack of coherent theory underlying its use, and limited assessment of how it is used. Clarity and information about each of these dimensions is essential for understanding and evaluating the impact of restrictive housing (e.g., goals dictate which outcomes matter). Accordingly, this paper discusses these topics before reviewing what is known about the impacts of restrictive housing and, in turn, the cost-efficiency of such housing relative to other strategies for managing prisons and inmates. It then identifies critical gaps in the present research and addresses questions that remain unanswered. Table 1 summarizes the state of research across all of these dimensions.

To arrive at this assessment, the paper discusses the following topics:

1. Definitional challenges associated with discussions of and research on restrictive housing and, by extension, with evaluations of its impacts.
2. The goals of restrictive housing and their importance for conducting and interpreting research on it.
3. The need for restrictive housing and the relevance of need for assessing impact.

4. The theory behind such housing and its relevance for anticipating and identifying its impact on inmates and their families, as well as on officers, prisons, and communities.
5. The implementation of restrictive housing and its relevance for creating beneficial or harmful impacts.
6. The impacts of restrictive housing on inmates and their families, as well as on officers, prisons, and communities.
7. The cost-efficiency of restrictive housing.
8. Critical research gaps and questions that ideally will be addressed to advance science, promote accountability, and place prison system management strategies on a more evidence-based foundation for achieving a variety of prison system goals.

The first five topics to be discussed dictate the outcomes that are relevant for evaluating the impact of restrictive housing. When research is limited or absent for any of these factors, there is a direct ripple effect for interpreting impact evaluation findings. For example, if a study shows that a prison system consistently employs restrictive housing for “nuisance” inmates, it would raise questions about how to interpret a finding that such housing reduces prison system violence. With the final three topics, the paper turns to discussing impacts, cost-efficiency, gaps in the research, and questions that remain unanswered.

The methodology for the literature review was guided by several considerations. First, given the broad scope, the paper focused on identifying general findings, patterns, and issues that have been identified in the empirical literature on restrictive housing. To this end, published empirical research, as well as reviews of research, on various aspects of restricted housing were reviewed (e.g., who is sent to such housing, its effects on recidivism). Second, primary emphasis was given to works published in peer-reviewed academic journals, though reports published by public and private research organizations were also reviewed. Third, works were consulted that may not have specifically used the term “restrictive housing” but nonetheless focused on what amounts to such housing. Fourth, the review primarily examined empirical research that emphasized the long-term effects of restrictive housing on inmates.

Definitions

Discussions of restrictive housing are plagued by inconsistencies in defining exactly what constitutes such housing. This issue is described here to establish the foundation on which any account of restrictive housing descriptions, estimates, uses, goals, or impacts rests.

What Is Restrictive Housing?

“Restrictive housing” does not refer to a single type of correctional housing design. Broadly, it involves the isolation of some inmates in single-cell confinement with little or no access to services, programming, privileges, or other people, regardless of the particular goal of such confinement. Additionally, a variety of terms are used to describe that situation. In some cases, one term appears to describe different types of housing and goals, while in other cases, different terms may describe similar housing and goals. In addition, there can be considerable variation in the precise conditions or experiences that constitute restrictive housing.

Accordingly, before discussing the state of empirical evidence on restrictive housing, this paper reviews the variation in terminology, goals, and the “nuts and bolts” of what counts as restrictive housing. The bottom-line assessment, though, is that differences in terminology make it difficult to arrive at clear or definitive statements about the state of empirical research on restrictive housing.

The Problem of Varying Terminology

One source of confusion in discussing restrictive housing is the varying terminology used by federal and state governments to describe what appears to be the same thing — extended isolation in single-cell confinement with limited access to programming, services, treatment, visitation, or the like, which has been a mainstay of prison systems for many decades (National Institute of Corrections, 1997; Henningsen et al., 1999; King, 1999; Naday et al., 2008; Mears, 2013; Ross, 2013; Frost & Monteiro, 2015; Richards, 2015). This variation in terminology may indicate important differences in the goals or design of specific housing. It may also mask similarities. For example, a study undertaken at the behest of the National Institute of Corrections found that states used the following terms to describe what appeared to be similar housing: “special housing unit, maxi-maxi, maximum control facility, secure housing unit, intensive management unit, and administrative maximum penitentiary” (Riveland, 1999:5). That report described all such housing as “supermax housing.” In the past two decades, increased attention has turned to supermaximum (supermax) security housing, in large part because many states used this terminology (Mears, 2006).

More recently, however, attention has centered on the term “solitary confinement,” in part because of calls by some legislators for reforms in the use of inmate isolation (Sen. Dick Durbin 2012, 2013; Shames et al., 2015). Despite this shift toward “solitary confinement” and “isolation” terminology, many policymaker, advocacy, and scholarly accounts appear to refer to the same underlying phenomenon of extended stays in single-cell confinement for up to 23 to 24 hours per day. At the same time, there continue to be widespread references to supermax housing and to various other terms, such as “administrative

segregation” and “segregated housing,” that denote extended isolation in such confinement for months or years. The terms segregation, solitary confinement, and isolation all underscore that a central feature of this type of housing experience is that inmates typically reside alone in a cell, rarely leaving it except for an hour or two each day, depending on the inmate’s behavior.

Most recently, another term — restrictive housing — has come into use (Kane et al., 2013; McGinnis et al., 2014; Baumgartel et al., 2015; Beck, 2015). It, too, is defined as an extended stay in, typically, single-cell confinement with limited access to programming, services, treatment, and so on. However, this term has the potential virtue of avoiding some ideological connotations that other terms, such as supermax housing, may convey. In addition, the Association of State Correctional Administrators (ASCA) uses this term and has emphasized that it covers a range of housing conditions captured by various prison classification systems, though it states that the term should not be used to include protective custody (Association of State Correctional Administrators, 2013:1). Other reports use restrictive housing to refer to administrative segregation but not to segregation that is used for punishment or protective custody (Baumgartel et al., 2015:11).

This definitional ambiguity is amplified by the lack of clear operational definitions and by state administrators and researchers who use the different terms interchangeably. It is amplified, too, by the fact that inmates may experience lengthy stays in single-cell housing regardless of whether they were placed there for protective custody, punishment, or management goals.

The Problem of Varying Goals

Another source of confusion is that the goals associated with restrictive housing (or analogous terms) vary. The following three-category typology, based on different goals, is frequently used to distinguish different types of restrictive housing (Mears & Watson, 2006; Shalev, 2009; McGinnis et al., 2014; Shames et al., 2015).

The first goal is restrictive housing to protect an inmate, which is known as protective custody housing. It provides temporary protection of an inmate. Typically, inmates would not be housed for an extended stay in isolation merely for their protection; however, inmates may well serve many months in such housing for this purpose.

The second goal is restrictive housing to punish an inmate, which is known as punishment or disciplinary custody. Here, again, lengthy stays in isolation should be unusual, but lengthy stays may occur. Prison system rules may prohibit stays of more than a set period of time (e.g., 30 days), but exceptions exist. Inmates, for example, might violate rules or act violently while in punitive segregation, thereby activating a new or extended stay. Alternatively, inmates’ status might

change; they may transition from punitive segregation to segregation for the purpose of achieving some management goal. Once again, the frequency of such extended stays is largely unknown.

The third goal is restrictive housing to isolate inmates for some management reason. There is no specific naming convention for this sort of isolation beyond suggesting that it serves managerial purposes. Restrictive housing may be used, for example, to manage the “worst of the worst” inmates (Henningens et al., 1999; King, 1999; Riveland, 1999; Mears, 2006, 2008b, 2013; Mears & Watson, 2006; Shalev, 2009; Butler et al., 2012; Richards, 2015). The meaning of “manage” frequently is not clear. The term might refer to any of a range of possible goals. One national study of supermax housing, for example, asked corrections officials and wardens for their views of the goals of such housing. The respondents reported that the goals included (Mears & Castro, 2006; Mears & Watson, 2006) —

- Increasing prison safety systemwide.
- Increasing prison order systemwide.
- Reducing the likelihood of prison riots.
- Incapacitating violent inmates.
- Improving the behavior of inmates who experience supermax confinement.
- Reducing the influence of gangs in prisons.
- Increasing public safety.

The Problem of Varying Designs

Yet another source of confusion in discussions about restrictive housing is variation in the nuts-and-bolts design of the housing (National Institute of Corrections, 1997; Riveland, 1999; King, 1999; Toch, 2003; Pizarro & Stenius, 2004; Naday et al., 2008; Shalev, 2009; Butler et al., 2012; Ross, 2013). The following questions illustrate this confusion. What building structures are considered restrictive housing — a separate housing unit, a wing of a building, a set of designated restrictive housing cells? Is technology of some type required? Does such housing always entail single-cell confinement or can it include housing two inmates in the same cell for extended periods? Does the duration of the stay matter? Does the inmate need to spend 23 hours per day in the cell, or would 16 or 22 hours per day suffice? Does an individual need to be held in such housing for a minimum number of days? Does the precise goal matter in identifying housing? For example, does confining an inmate in isolation for 36 hours to help him or her to “cool down” count as restrictive housing? Is it necessary that inmates have limited privileges, including limited access to

programming, services, treatment, visitation, and so on? Just how intense do the limitations need to be to create conditions that amount to restrictive housing?

No agreement exists about such issues. The reality is that restrictive housing refers to a highly heterogeneous set of conditions. In many cases, the heterogeneity may mask a core commonality: extended isolation with little or no access to programming, services, treatment, or visitation. In other cases, the heterogeneity may signal important nuances that differentiate the experience of restrictive housing from one facility or state to another.

The Relevance of Varying Definitions, Goals, and Design

These sources of confusion have compromised the ability of different parties — policymakers, practitioners, advocates, researchers, and so on — to talk meaningfully or accurately about restrictive housing. In some cases, these groups may be discussing the same phenomenon, but in others they may be discussing different phenomena. Conversely, it may appear that the same phenomenon is under discussion when in reality different phenomena are being compared. The situation is unfortunate because definitions, goals, and prison design matter.

First, definitions — If different housing types are being compared using similar terminology, then the risk is that incorrect inferences will be drawn about the effects of a given housing type. Similarly, if two types of housing share important similarities, then differing terminology may create the impression that the two types are fundamentally different from one another.

Second, goals — Goals matter greatly for evaluating the need, theory, use, impact, and efficiency of restrictive housing. If the goal is to punish inmates, then an assessment of the extent to which punishable behavior warrants restrictive housing should be undertaken. An assessment of the extent to which the punishment in fact constitutes punishment, on theoretical grounds, also should be undertaken. In addition, an assessment of impact is needed. (Some inmates may seek to be placed in restrictive housing, which highlights the fact that such housing is not intrinsically punishment (Lovell et al., 2000; Mears & Watson, 2006; Mears, 2013). Not least, the extent to which restrictive housing results in greater benefits than costs — ideally more so than some alternative strategy — should be assessed. Similar assessments are needed for each goal of restrictive housing.

Third, design — The conditions of restrictive housing also matter for evaluating its impact. Different combinations of restrictive housing features or experiences may result in varying effects on inmates or prisons. For example, a prison system in which restrictive housing involves stays of four to six months with as much programming, services, and treatment as can be provided may well result in different effects on inmate mental health, misconduct, or recidivism compared to

a system where restrictive housing involves much longer stays and limited or no programming, services, or treatment.

Restrictive Housing Defined

For this white paper, restrictive housing is defined as single-cell confinement for relatively extended periods with limited or no access to programming, services, treatment, visitation, and the like. Goals for its use are protective custody, punishment, or any of a range of specific management objectives. This definition recognizes that lengthy stays in restrictive housing may occur regardless of whether inmates are placed there for protective custody, punishment, or a managerial reason. It also recognizes that some restrictive housing may allow for two inmates per cell. The primary commonality in discussions about extended isolation is that inmates are isolated from others, so this paper defines restrictive housing as single-cell confinement.

An advantage of this definition is that it accords with many sorts of restrictive housing — administrative segregation, supermax prisons, extended isolation, and so on — as well as with the 2015 Bureau of Justice Statistics (BJS) national study of restrictive housing (see, generally, National Institute of Corrections, 1997; Beck, 2015; Riveland, 1999; King, 1999; Rhodes, 2004; Naday et al., 2008; Shalev, 2009; Association of State Correctional Administrators, 2013; Mears, 2006, 2013; U.S. Government Accountability Office, 2013; Kane et al., 2013; Ross, 2013; Gendreau & Labrecque, 2015; Labrecque, 2015a; Morris, 2015). In addition, it recognizes that restrictive housing may begin for one purpose (e.g., management) but continue to be used for another (e.g., punishment). Even so, a disadvantage of this definition is that it obscures the fact that extended isolation may vary greatly with respect to factors such as goals, design, and operations. The only alternative to consistently using “restrictive housing” or some other term is to standardize a typology of housing that all prison systems might agree to use and follow. Such a typology does not currently exist (Beck, 2015).

In the end, the general concern appears to center around extended isolation, regardless of the particular goals or characteristics of facilities, and the need to ensure that it is used only when necessary.

Restrictive Housing Inmate Estimates

Prior to the 2015 BJS study, estimates of the prevalence of inmates in restrictive housing varied considerably and did so based on less credible sources of information than the data obtained from the large survey sample of inmates who were interviewed for the study. Before discussing the BJS estimates, several previous sources of information warrant discussion.

In 1996, the National Institute of Corrections examined the prevalence of supermax housing. The Institute's definition of supermax housing was as follows:

In this survey, 'supermax' housing is defined as a free-standing facility, or a distinct unit within a facility that provides for the management and secure control of inmates who have been officially designated as exhibiting violent or serious and disruptive behavior while incarcerated. Such inmates have been determined to be a threat to safety and security in traditional high-security facilities, and their behavior can be controlled only by separation, restricted movement, and limited direct access to staff and other inmates (National Institute of Corrections, 1997:2).

The Institute excluded from consideration protective custody and disciplinary segregation. Even so, it found that supermax housing is sometimes used for "routine segregation purposes (e.g., discipline, protective custody, and program segregation)" (National Institute of Corrections, 1997:3). The Institute provided no national estimate, though its report indicated that "there are at least 57 supermax facilities/units nationwide . . . providing a total of more than 13,500 beds" (National Institute of Corrections, 1997:3).

In 1999, Roy King used the Institute's information to estimate that in 1998 there were 20,000 inmates — approximately 2 percent of all state and federal inmates — serving time in supermax housing (King, 1999). Two-thirds of states had such housing and others had plans for building it (King, 1999; Riveland, 1999).

In 2006, drawing on a national survey of prison wardens, an Urban Institute study undertaken by Daniel P. Mears estimated that, in 2004, 44 states had supermax housing. The definition used was similar to that used in the National Institute of Corrections study:

For the purposes of this survey, a supermax is defined as a stand-alone unit or part of another facility and is designated for violent or disruptive inmates. It typically involves up to 23-hour-per-day, single-cell confinement for an indefinite period of time. Inmates in supermax housing have minimal contact with staff and other inmates (Mears, 2005:49).

Using this information and that of the King estimate, the Mears study estimated that approximately 25,000 inmates served time in such housing, and emphasized both that the number was a rough approximation and that it likely underestimated the true prevalence of supermax incarceration (Mears, 2005:40).

In 2008, Alexandra Naday and colleagues estimated that the number of inmates in supermax housing nationally ranged from a low of 5,000 to a high of 100,000, with the most frequently cited estimate being around 20,000 (Naday et al., 2008:77). In recent years, the 2004 estimate of 25,000 from the Urban

Institute study has prevailed and, for example, surfaced in the *Davis v. Ayala* 2015 U.S. Supreme Court decision.¹ Naday and colleagues examined the basis for the counts of supermax housing provided in these sources and argued “that disagreements about definitions, changing policies and court decisions, reporting and recording errors, and different counting procedures have led to a lack of reliable and valid data on supermax” housing (Naday et al., 2008:69). They noted, for example, that the National Institute of Corrections study expressly excluded any segregation housing used for protective custody or disciplinary segregation (Naday et al., 2008:72). They also observed that the count estimates provided by the American Correctional Association and the Criminal Justice Institute stemmed from a definition that focused on the conditions of supermax housing and largely ignored the various uses for solitary confinement, thus creating a discrepancy between this definition and that of the National Institute of Corrections (Naday et al., 2008:72). The authors then identified marked inconsistencies in the security-level status of many facilities throughout the country, noting that various studies used operational capacity rather than actual utilization rates, thereby creating different estimates. The authors concluded that such variation, as well as inconsistent definitions across states and in studies, made it difficult to arrive at a valid estimate of the number of inmates who experienced supermax housing.

In 2014, Yale Law School, in conjunction with ASCA, conducted a survey of state and federal corrections administrators about the use of administrative segregation (Baumgartel et al., 2015). The results suggested that 66,000 prisoners in the 34 jurisdictions that provided counts were “in some form of restricted housing — whether termed ‘administrative segregation,’ ‘disciplinary segregation,’ or ‘protective custody’” (Baumgartel et al., 2015:ii). The report then noted, “If that number is illustrative of the whole, some 80,000 to 100,000 people were, in 2014, in segregation.” The numbers did not include individuals in restrictive housing in jails or juvenile custodial facilities (Baumgartel et al., 2015:ii). This estimate was based on self-reports from corrections administrators, so its accuracy is unknown (Baumgartel et al., 2015:12).

The BJS study was published in 2015. Based on a national survey sample of 91,177 inmates in state and federal prisons and jails, the study provides, arguably, the most accurate current estimate of restrictive housing prevalence nationally. It bears emphasizing, however, that prior studies used varying definitions and data sources. As a result, anyone comparing the estimates should be aware of

¹ *Davis v. Ayala*, 135 S. Ct. 2187, decided on June 18, 2015, concerned a case involving peremptory challenges that were alleged by Ayala to have been race-based; the Court reversed the judgement of the Court of Appeals for the Ninth Circuit. The legal aspects of the case did not involve restrictive housing. However, Justice Kennedy, in a concurring opinion, took note of the fact that the respondent, Ayala, had spent the bulk of his term of incarceration, since receiving a death penalty sentence in 1989, in solitary confinement. Justice Kennedy then noted that 25,000 inmates were estimated to be serving their sentence in solitary confinement and criticized the use of such confinement, arguing that it was overused and caused harms to inmates.

those differences. The National Institute of Corrections study and the Mears/Urban Institute study, for example, used supermax terminology and thus focused primarily on the subset of inmates placed in restrictive housing for managerial purposes. Accordingly, the studies underestimated prevalence for all forms of restrictive housing. Conversely, the Yale/ASCA study focused on restrictive housing, defined as segregation that might include managerial purposes but also protective custody and punishment. The BJS survey asked inmates directly whether they were, or had spent time, in disciplinary or administrative segregation or solitary confinement (Beck, 2015:16).

According to the BJS study, the following prevalence estimates can be generated from its National Inmate Survey:

- An estimated **4.4 percent of state and federal inmates and 2.7 percent of jail inmates** were in restrictive housing on an average day in 2011-2012.
- An estimated **20 percent of prisoners and 18 percent of jail inmates** spent time in such housing in the prior year or since arriving at the facility where they were surveyed.
- An estimated **10 percent of prisoners and 5 percent of jail inmates** spent 30 days or longer in some form of restrictive housing (Beck, 2015:1).

BJS did not include counts of inmates. If the percentages above were applied to the year-end 2013 prison and jail population counts nationally, they would suggest the following:²

- An estimated **90,000 inmates** (70,000 prisoners and 20,000 jail inmates) reside in restrictive housing on an average day.
- An estimated **447,000 inmates** (315,000 prisoners and 132,000 jail inmates) spent time in restrictive housing in the past year or since arriving at their current facility.
- An estimated **195,000 inmates** (158,000 prisoners and 37,000 jail inmates) spent 30 days or longer in restrictive housing.

Several observations about these estimates warrant discussion. First, the percentages suggest that restrictive housing is used far more frequently than past estimates indicate. Given that prison populations have greatly increased in recent decades, restrictive housing is used for many more inmates than in prior years, and thereby may have greater effects on prisoners than previously thought.

Second, the fact that in one 10 inmates reports having spent at least 30 days in restrictive housing suggests that prior studies substantially undercounted inmates

² Glaze and Kaeble (2015:2) reported that, at year-end 2013, 1,574,700 individuals were incarcerated in state or federal prisons and that 731,200 individuals were incarcerated in jails.

in supermax housing. Inmates might well serve 30 days or more for protective custody or disciplinary confinement; however, this confinement may well be restricted primarily to situations in which an inmate is placed in isolation for a broader managerial purpose, which would fit more with the goal of supermax housing. If so, the estimate is, again, substantially greater than what has been suggested in prior studies of supermax incarceration.

Third, restrictive housing is common in jails. Accordingly, national discussions about restrictive housing should focus on both prisons and jails.

Fourth, if the percentages identified in 2011-2012 hold for current prison and jail populations, then prior counts of inmates in restrictive housing — including those held for protective custody, disciplinary segregation, and managerial segregation — are substantially underestimated. Upper-end estimates have indicated that 100,000 inmates are in solitary confinement. The estimates based on applying the BJS percentages to current (year-end 2013) prison and jail populations suggest that 195,000 inmates spent 30 days or more in restrictive housing, and that 447,000 inmates spent some time in such housing.

Fifth, restrictive housing exists in many other countries, but the United States appears to employ it more than other countries. However, little is known empirically about country-by-country differences in the design, uses, or effects of such housing (Ross, 2013; Richards, 2015).

Finally, it is unlikely that agreement about whether such housing is ever appropriate on moral grounds will occur (Mears & Castro, 2006; Mears & Watson, 2006; Mears et al., 2013). Regardless, it may be possible to garner agreement about its appropriateness based on whether its benefits exceed its costs and do so to a markedly greater degree than other approaches to achieving prison and jail goals.

Goals

Evaluation of a policy's impacts begins with clarity about its goals. There is, in fact, little clarity about the precise goals of restrictive housing. Instead, a range of goals for its use can be and have been articulated, which has greatly impeded progress in evaluating the impacts of restrictive housing. The lack of consistent, precise goals across studies is one reason that so little is known about its effectiveness. The different goals, and their implications for research on and discussions about restrictive housing, are discussed below.

Diverse Goals

Accounts of restrictive housing consistently identify that it can serve three goals: to protect some inmates, to punish others, or to achieve management goals, such

as incapacitating out-of-control inmates or creating more systemwide safety and order. Although protection and punishment appear to be straightforward goals, they are not. For example, it is not clear that isolation provides better protection than some other strategy or that it achieves some desired level of retribution. In addition, the management goals that might be achieved through segregation vary. The following goals associated with restrictive housing were identified by drawing on prior studies, particularly the Urban Institute study of supermax housing.³

Goal 1 — Increased systemwide prison safety, including fewer riots, murders, and assaults.

This requires improved conduct among inmates living in or released from restrictive housing and among general population inmates.

Goal 2 — Increased systemwide prison order.

Although safety and order are often viewed as a single concept, the two words represent distinct phenomena.⁴ Whereas safety involves preventing violence or injury, order centers on the extent to which inmates adhere to rules, procedures, policies, and everyday routines. Disorder in a prison system might contribute to violence, but it need not do so. Conversely, an orderly prison system might experience violence. In any case, prison systems view order as a priority, one that they hope improves safety. Greater order may stem from inmates who experience restrictive housing, from all other inmates, or both.

Goal 3 — Increased control of prisoners.

Many accounts observe that restrictive housing serves to control certain prisoners. The meaning of control varies. For example, control can mean incapacitating an inmate who poses an immediate and pressing threat to safety, reducing an inmate's ability to instigate others, or providing an inmate with a setting in which to cool down before potentially harming themselves or others (Burt, 1981; DiIulio, 1987; Logan, 1993; Sparks et al., 1996).

³ Analysis indicates that restrictive housing serves many different goals in other countries as well (Ross, 2013; Richards, 2015).

⁴ Full discussion of the results is provided in Mears (2005, 2006), Mears and Castro (2006), and Mears and Watson (2006). The identified goals are not necessarily prioritized by each state, and some states may prioritize one or more of them. They are ones that the Urban Institute study identified from interviews with state legislators and corrections officials and staff, a survey of state prison wardens, and from articles and reports on supermax housing (e.g., National Institute of Corrections, 1997; Stickrath & Bucholtz, 2003; Pizarro & Stenius, 2004; Shalev, 2009; Richards, 2015). Some states may prioritize one or more or all of the goals. In the Urban Institute study, supermax housing was defined in such a way as to include protective custody, punishment, and management goals. Analysis indicates that restrictive housing serves many different goals in other countries as well (Ross, 2013; Richards, 2015).

Goal 4 — Improved behavior of violent and disruptive prisoners (Stickrath & Bucholtz, 2003).

Improved behavior among this population should contribute to greater prison safety. With restrictive housing, however, the emphasis is on safety that results from rehabilitation or some other change in the inmate, as opposed to safety that results solely from incapacitating the inmate. Corrections officials in the Urban Institute study who emphasized this goal also emphasized the goal of successfully reintegrating inmates from restrictive housing back into the general prison population (Atherton, 2001). From this perspective, success includes not only incapacitating the inmate from engaging in or inciting violence or misconduct but also promoting successful reentry into general population facilities.

Goal 5 — Reduced gang influence.

Many accounts point to restrictive housing as a way to reduce gang influence in prisons (Mears & Watson, 2006; see also Ward & Werlich, 2003). This outcome can be viewed as a goal in and of itself or as a means to achieve other goals, such as improved systemwide prison safety or order.

Goal 6 — Protection of certain inmates.

Some inmates may be at risk of victimization and may warrant special housing to protect them. In such cases, such housing would not necessarily need to be restrictive (e.g., 23 hours per day in solitary confinement) unless a particular need for certain restrictions existed. Stays in such housing typically would not be extended, though it is possible that inmates placed in restrictive housing for protection may reside there for extended periods. Such circumstances may stem from the need for further protection, misconduct committed while in restrictive housing, or some other reason.

Goal 7 — Punishment.

Restrictive housing may be used to punish inmates. Punishment can be viewed as a goal in and of itself — in such cases, it constitutes retribution. How much retribution is appropriate within prisons for various infractions or crimes is not well-established. Since no clear consensus exists, prison systems institute sanctions, within legal limits, that become established practice. Punishment can also implicate several related goals. It can be viewed as a means to other ends, such as public safety. For example, it can serve to deter an inmate from engaging in problem behavior again. It can also serve as a general deterrent that reduces the likelihood that other inmates will engage in violent or disruptive behavior.

Goal 8 — Increased public safety.

Restrictive housing can be viewed as a strategy for increasing public safety. A legislator in one study commented, for example, that a low escape rate might serve to show a supermax prison's effectiveness (National Institute of Corrections, 1997; Austin et al., 1998; Grann, 2004; Pizarro & Stenius, 2004; Reiter, 2012). Recidivism is, in general, a metric that has been used to measure the effectiveness of corrections.

Goal 9 — Improved correctional system efficiency.

There are several strategies for achieving various prison system goals. Restrictive housing can be viewed as a cost-effective strategy for achieving these goals (Mears & Watson, 2006). For example, instead of dispersing violent or disruptive inmates throughout the prison system, concentrating them in one place creates potential economies of scale, including reduced transportation and staff training costs (Hershberger, 1998).

Evaluating Restrictive Housing — Need, Theory, Use, Impact, and Efficiency

Identification of relevant goals is essential for evaluating the need for restrictive housing, the theory that guides its use, whether its use is appropriate, its impacts, and its efficiency. These dimensions — need, theory, use, impact, and efficiency — collectively constitute what Peter Rossi and colleagues call “evaluation hierarchy,” which provides a foundation on which to systematically assess a policy (Mears & Reisig, 2006; Mears & Watson, 2006).

Some examples might illustrate how evaluation hierarchy might work. If the goal is to punish certain inmates using restrictive housing, then information is needed about how many inmates engage in punishable behavior that warrants placement in such housing. Research is also needed on the theory underlying restrictive housing as punishment, the extent to which restrictive housing is used appropriately, and whether it in fact achieves a desired level of retribution.

By contrast, if the goal is to reduce prison riots, a parallel set of questions arises that center not on punishment but on riots. For example, to what extent do riots occur and to what extent are they caused by individual inmates? How many such inmates exist? By what logic will restrictive housing reduce their ability to cause riots? Are the inmates most at risk of inducing riots placed in restrictive housing, or are nuisance inmates placed in such housing instead? Does restrictive housing reduce riots? If so, does it do so more cost-efficiently than some other alternative?

These questions — those focused on need, theory, use, impact, and efficiency — are all specific to the particular goals associated with restrictive housing (Rossi

et al., 2004; Mears 2010). For example, if restrictive housing is used to improve systemwide prison safety and order, then evaluations that address each of these dimensions must be undertaken (Mears & Reisig, 2006). How much violence and disorder exists? What causes violence and disorder? Are a select few inmates the primary cause? How exactly will brief, intermediate, or long-term stays in restrictive housing improve safety and order? Are the inmates who contribute most to violence and disorder in fact in restrictive housing? How much systemwide safety and order result from the use of restrictive housing? What is the cost-benefit ratio? Is it greater than what might arise from other strategies for improving systemwide safety and order?

A Balanced Assessment of the Impact of Restrictive Housing

A balanced assessment of the impact of restrictive housing requires evaluation of the extent to which it contributes to its different goals. It also requires subjective assessments about which particular goals are most important. States may vary, for example, in the extent to which they use restrictive housing for one goal rather than another (Mears & Castro, 2006; Mears & Watson 2006). Accordingly, impact evaluations should assess how well restrictive housing achieves various goals and weight these goals against a state's stated goals for the housing.

In addition, even if restricted housing seeks to achieve only one goal, unintended impacts, whether positive or negative, should be considered in arriving at a balanced assessment of impact (Mears & Watson, 2006). For example, no state uses restrictive housing with the intended goal of worsening inmate mental health or recidivism outcomes, yet such housing may do so.

Need

Restrictive housing may be needed and may serve a critical role in achieving prison system goals. Alternatively, it may not be needed, and some other strategy may be more appropriate for achieving these goals or addressing specific problems. Accordingly, clarity about the need for restrictive housing is critical for understanding the extent to which it achieves various goals. The state of evidence to date provides little credible empirical basis for knowing whether or how much restrictive housing has been or is needed.

The Need for Restrictive Housing Depends on the Goal

Is restrictive housing needed? The answer depends on the goal. If restrictive housing serves to control especially dangerous, violent, or disruptive inmates, then there may be a need if such inmates exist. They assuredly do, and so need would be based on assessing how many such inmates warrant restrictive housing.

However, the situation is complicated by other goals that exist for restrictive housing. For each goal, a prison system will want to understand the prevalence of a particular problem that restrictive housing is intended to address. For example, if restrictive housing serves to punish inmates, how many individuals commit the kinds of acts that warrant placement in restrictive housing? How long can inmates be expected to reside in restrictive housing? By answering such questions, prison system officials might begin to determine how many restrictive housing beds it needs. Whatever the final answer may be, it will differ from the number arrived at if the focus is on a different goal, such as protecting inmates or reducing gang influence in prisons.

The Need for Restrictive Housing Depends on the Causes of Particular Problems

Whether restrictive housing is needed depends on the causes of the problems it is intended to address — perhaps an inmate cannot be protected through any other approach, perhaps an inmate committed an act that warrants punishment, or perhaps an inmate engaged in activities that somehow created problems that posed a risk to the prison system. In each instance, many facilities might determine that restrictive housing is needed. Typically, their focus would then shift to how many inmates fit these different profiles to determine how much restrictive housing should be built. However, this straightforward approach would be inappropriate for several reasons. Two examples illustrate why.

First, the need may not be for restrictive housing; rather, it may be for efforts that target the causes of the inmate behaviors. Poor staff professionalism or limited rehabilitative programming at a given facility, for example, might result in some inmates not receiving the protection they may need. These conditions also might contribute to other problems such as violence and infractions. Accordingly, in such situations, the need is not for restrictive housing. Instead, the facility may need to institute efforts that improve staff professionalism and increase rehabilitative programming opportunities (Sykes, 1958; DiIulio, 1987; Cooke, 1989; Sparks et al., 1996; Kassel, 1998; Reisig, 1998; Bottoms, 1999; Toch, 2003; Rhodes, 2004; French & Gendreau, 2006; Mears & Reisig, 2006; Mears, 2008a, 2013; Useem & Piehl, 2008; Browne et al., 2011; Cullen et al., 2014).

Second, the need may not be for restrictive housing; rather, it may be for first employing a continuum of alternative and less costly strategies. Restrictive housing has been described by corrections officials as a “last resort” option (Mears, 2013) — the equivalent of an emergency room in a hospital. Long before using this option, other, less costly options — such as promoting greater staff professionalism, ensuring fair and consistent enforcement of rules, improving officer and inmate culture, providing targeted programming that addresses each inmate’s individual risks and needs, relying on evidence-based behavioral

interventions, and so on — should be considered (Sykes, 1958; DiIulio, 1987; French & Gendreau, 1996; Sparks et al., 1996; Reisig, 1998; Bottoms, 1999; Riveland, 1999; Gendreau & Keyes, 2001; Briggs et al., 2003; Mears & Watson, 2006; Shalev, 2009). In many instances, there may not be a need for restrictive housing but instead for more and better implementation of other options. If such options have been exhausted and behavior still falls short, then there may be a need for restrictive housing as another tool for addressing a particular problem.

In short, empirical assessment of the need for restrictive housing requires going well beyond identifying a certain number of inmates for protection, punishment, or some management goal. It requires explicit description of the precise problems that restrictive housing is intended to address and the goals that it is intended to achieve. It also requires empirical evaluation of the causes of these problems and the extent to which those causes can be addressed through less costly options. Not least, it requires evaluating the extent to which such options have been pursued in sufficient doses, or with sufficient fidelity, to reduce a particular problem. If they have not, then attention presumably should focus on improving the options, not in taking recourse in a more expensive one. With such analyses in place, the focus logically would turn to examining the need for restrictive housing.

Although there is little empirical evidence in the published literature that restrictive housing is needed, it appears likely that prisons do need some such housing. What is lacking, however, are empirically based evaluations that document the need for restrictive housing relative to the need for a range of other approaches that address the problems that restrictive housing is supposed to address. Instead, states by and large appear to have focused on forecasting based on current use. For example, if 500 inmates were in restrictive housing in a given year, a state might assume that the use was needed and would continue to incarcerate these inmates in restrictive housing. The state then might forecast a need to increase the number of restrictive housing beds based on an expected increase in the general inmate population. This approach largely sidesteps the issues of whether the actual use was needed in the first place or what the current need may be.⁵

The Need for and Impact of Restrictive Housing Depends on the Point of Comparison

Restrictive housing, especially when used for management purposes, may be viewed from at least two vantage points. The first is that such housing is rarely

⁵ An illustration of the potential problems with this approach can be found in a National Public Radio (2012) interview with Walter Dickey, who was the director of the Wisconsin Division of Corrections from 1983-1987 and subsequently the Federal Monitor for the supermax prison at Boscobel, Wisconsin: "I think one of the things that's happened, at least in a lot of states, Wisconsin's one of them, is I think we grossly exaggerated the need for the supermax prison and overbuilt it, and I think, not surprisingly, when you've got empty cells in a crowded prison system, you tend to fill them up."

used. This characterized most state prison systems in the United States in the 1970s and early 1980s. When restrictive housing was rarely used, the question for many states would have been, “To what extent is restrictive housing needed in a context where it rarely is used?” Given the marked growth in restrictive housing in subsequent decades, states clearly viewed restrictive housing as greatly needed. However, there is little evidence that states systematically and empirically assessed the need for this growth.

The second vantage point is that such housing is used relatively frequently. This characterizes most states in contemporary America. The question for many such states is, “To what extent is the current level of restrictive housing needed?” Without a needs evaluation of the various problems that such housing is intended to address, as well as the options available to address them, it will remain difficult to answer that question.

Distinguishing between these scenarios is important, primarily to highlight that current use should not necessarily be viewed as appropriate or needed. Indeed, it may well be that past use consistently well exceeded the need or, in some states, fallen short of the need. In both scenarios, research would document the need empirically.

Theory

Theory, whether explicitly articulated or not, guides any policy or program.⁶ Restrictive housing is no different (Mears & Watson, 2006; Mears, 2013.) It involves a causal logic: By changing some set of conditions or factors, restrictive housing creates improvement in outcome. Any policy or program that lacks a clear causal logic built on credible theory and research risks failure. A well-designed policy or program that builds on credible theory is more likely to provide clear guidance about implementation and to be effective. This axiom applies to all social policy arenas, including criminal justice and corrections (Rossi et al., 2004; Mears, 2010; Latessa et al., 2014). As discussed below, the theory guiding restrictive housing is unclear; ambiguity in the theory complicates evaluation of implementation and impact. It is a central reason why so little is known about the impacts of restrictive housing or what contributes, in extant studies, to any identified impact.

Ambiguity in the Theoretical Foundations of Restrictive Housing

Several ambiguities lie in the theoretical foundations of restrictive housing. The diverse goals associated with such housing create ambiguity because a single

⁶ Theory guides research as well. Ideally, researchers and policymakers explicitly articulate the theory that guides their efforts. Doing so identifies potentially problematic assumptions as well as important information about how exactly a given phenomenon, or policy, contributes to a given outcome (Rossi et al., 2004; Mears, 2010).

treatment — restrictive housing — is unlikely to achieve each goal through the same causal pathways. Another source of ambiguity is the lack of clarity about how restrictive housing might achieve any particular goal. This paper describes prominent ambiguities in the theoretical or causal logic of restrictive housing.

First, with rare exception, the causal logic for restrictive housing has not been formally articulated. Exceptions exist, such as a theoretical analysis of supermax housing and how it might affect prison system safety and order (Mears & Reisig, 2006). However, states have not undertaken such analyses for particular housing goals that they seek to achieve through restrictive housing (e.g., increasing prison system safety or order, increasing control of prisoners, improving behavior of violent or disruptive inmates, reducing gang influence, protecting certain inmates, punishing certain inmates, increasing public safety, and improving correctional system efficiency) (Mears & Reisig, 2006).

Second, the theory by which restrictive housing might achieve certain goals rests on questionable assumptions. Several examples illustrate this issue.

Increasing systemwide safety and order. Restrictive housing has been viewed as a primary strategy for increasing systemwide safety and order. One theory is that inmates in restrictive housing, as well as those in the general population, will be deterred from misconduct. However, any such effect depends on restrictive housing meeting certain conditions required for deterrence to occur, including objective and perceived certainty, celerity, and severity of punishment (Paternoster, 2010). For example, inmates in restrictive housing must view it as punishment; the fact that inmates sometimes seek to be placed in restrictive housing suggests that it is not always viewed as punishment (Suedfeld, 1974; Suedfeld et al., 1982; Lovell et al., 2000; Singer, 2003; Mears & Watson, 2006; Richards, 2015). At the same time, inmates in the general prison population may take stock of precisely what behaviors must occur to be placed in restrictive housing and engage in only those that stop short of what is likely to result in such placement (Pizarro & Stenius, 2004). In addition, perceived prison system misuse or abuse of restrictive housing may engender ill will among inmates directly or indirectly exposed to it. From the perspective of defiance theory, restrictive housing may contribute to more rather than less violence and disorder (Sherman, 1993; see also Ward & Werlich, 2003, regarding the “rage hypothesis”).

Decreasing prison riots. In a number of states, restrictive housing increased in response to prison riots; in turn, its use was justified on the grounds that it could prevent riots from occurring. Riots in fact may stem from many causes, only one of which is a set of violent or disruptive inmates (Martin & Zimmerman, 1990; Boin & Rattray, 2004; Mears, 2008a). Officer professionalism and interactions with inmates, consistent rule enforcement, provision of various types of programming, and so on, all may contribute to reducing riots, while their absence may contribute to increasing riots (Useem & Kimball 1991; Sparks et al., 1996; Reisig, 1998; Bottoms, 1999; Gendreau & Keyes, 2001; Mears, 2008a;

Useem & Piehl, 2008; Morris et al., 2012). Restrictive housing does little to address these root causes of riots. Instead, its use proceeds from the assumption — one not supported by research — that a certain group of inmates constitutes the primary if not exclusive cause of riots.

Punishment. When the goal of restrictive housing is retribution, the assumption is often that inmates experience placement in such housing as punishment. However, it is unclear precisely which theory of punishment suggests that isolation constitutes a sanction that individuals experience as punishment or that agrees with societal views about appropriate levels of punishment. This observation underscores a more general issue: Punishment can consist of any of a wide range of possibilities in prisons (e.g., restricted privileges, transfer to a less desirable work assignment, fines, transfer to another facility). The manner in which restrictive housing fits within this range of possibilities, or which theory guides these possibilities, typically has not been articulated by prison systems. More generally, systems tend not to address the following questions: How does restrictive housing result in a desired level of retribution? What level of retribution is desired? How much time in restrictive housing achieves that level of retribution? A theory might shed light on such questions. The absence of such a theory implies that restrictive housing does not achieve in any obvious way intended levels of retribution for society or correctional systems.

The theoretical logic for how restrictive housing might achieve these and any of its other intended goals remains uncertain. Also uncertain is the extent to which the different assumptions underlying the logic are correct. For example, to what extent does incarcerating security threat group (gang) leaders prevent them from communicating with other gang members? If they are able to communicate despite segregation, then a central theoretical argument for restrictive housing would be undermined (Grann, 2004; Preer, 2004; Mears & Watson, 2006). Conversely, if restrictive housing does inhibit communication, and if no members “step up” to replace a gang leader placed in such housing, then it may be reasonable to expect gang violence to decline. In a related vein, placing an inmate in protective custody might reduce opportunities for victimization, but doing so depends on at least two factors: credible information about the risk to inmates, and other inmates not viewing protective custody as a negative signal about that inmate’s character. In addition, protective custody itself does not target the prison conditions that might contribute to victimization of certain inmates.

Third, credible theoretical arguments that restrictive housing worsens a range of outcomes can be and have been articulated. A theoretical argument that restrictive housing worsens outcomes is not necessarily accurate, any more than the argument that restrictive housing improves outcomes. An ideal scenario for any policy, however, is when the theoretical arguments for it rest on credible theory and research, while the arguments against it do not. That scenario does not characterize restrictive housing. For example, restrictive housing does little to address known causes of inmate misconduct, recidivism, riots, or the like.

It potentially diverts resources and attention away from approaches that may be more effective and may create conditions that worsen inmate behavior. It reduces opportunities for inmates in restrictive housing to receive effective drug or mental health treatment and to maintain ties with family or friends. Use of restrictive housing also largely precludes provision of cognitive-behavioral counseling and other interventions that can improve inmate behavior and reduce recidivism. In addition, the sensory deprivation and isolation from others that occurs with restrictive housing may contribute to mental illness. In these instances and in others, scholars have traced theoretical mechanisms through which restrictive housing may create adverse outcomes (Sykes, 1958; McCorkle et al., 1995; Bottoms, 1999; Kurki & Morris, 2001; Haney, 2003; Rhodes, 2004; Irwin, 2005; King, 2005; Cloyes et al., 2006; Mears & Watson, 2006; Smith, 2006, 2008; Kupers, 2008; Kupers et al., 2009; Gawande, 2009; Shalev, 2009; Haney et al., 2015).

Fourth, restrictive housing does not address a variety of potential causes of inmate violence, prison disorder, gang influence, victimization of certain inmates, and so on. Focusing in particular on systemwide safety and order, Richard Sparks and colleagues noted that “what [special prison units] cannot do is magically to unlock the problem of order for a prison system as a whole” (Sparks et al., 1996:313). Some accounts depict state prison wardens as enthusiastically embracing restrictive housing because of the control that it affords over some inmates.⁷ Others, however, suggest that wardens’ views about the appropriateness and effectiveness of restrictive housing vary (Mears, 2006; Mears & Castro, 2006; Mears & Watson, 2006). Support for and perceptions of restrictive housing as a solution to prison problems⁸ may stem from the fact that wardens often confront and must manage extremely dangerous individuals. Yet, restrictive housing in and of itself does not directly address the causes of a particular individual’s behavior or, more generally, the causes of systemwide operations, safety, and order. Accordingly, on theoretical grounds, it is unclear whether restrictive housing can achieve many of the goals associated with it (King, 1999, 2007; Mears & Reisig, 2006).

Theory and Its Relevance for Evaluating Implementation and Impact

Advances in the theory underlying restrictive housing are directly relevant to evaluating its implementation and impact. For example, if restrictive housing is expected to achieve systemwide safety and order through specific deterrence, it should be used in such a way that this goal is achieved. That might include using restrictive housing only for those inmates who in fact may be deterred from bad behavior by placement in it. Similarly, if restrictive housing is expected to reduce

⁷ Ward and Werlich (2003:59) reported that state prison wardens who visited the federal supermax facility at Marion, Illinois, indicated that they “had died and gone to heaven” because of the extensive control that the staff had over inmates.

⁸ Lorna Rhodes (2004:36) has noted, for example, that “the dream of the perfect prison has deep historical roots.”

gang influence, then it is important that only the most influential gang members are placed in it. Theory identifies, too, the intermediate outcomes that may be relevant to evaluating impact. In these and other instances, appropriate implementation requires clarity about the goals of restrictive housing, the types of inmates for whom it is appropriate, the “dose” of restrictive housing that may be most efficacious, and the treatment and services that may achieve the intended goals.

Credible theory is also relevant for increasing intended benefits and reducing unintended harms. For example, general deterrence does not require specific lengths of stay. Accordingly, it may be that placing more inmates in restrictive housing for short durations may be more effective than segregating fewer inmates for longer durations. Crime theories suggest that severing inmates’ social ties and failing to address their criminogenic needs may contribute to more offending rather than less (Latessa et al., 2014; Mears & Cochran, 2015). From this perspective, greater gains in reducing misconduct or recidivism may arise either from not using restrictive housing or from combining its use with a variety of rehabilitative interventions.

Similar illustrations exist for the other goals associated with restrictive housing. In each instance, theory is needed that can guide evaluation of implementation and impact. Such theory can be used to identify aspects of restrictive housing that might be modified to maximize its beneficial impacts and minimize its harms.

Implementation

A necessary condition for restrictive housing to achieve its intended goals is that it house appropriate inmates and be operated according to design. Typically, full and quality implementation should be established prior to evaluating policies and programs and estimating their impact. Otherwise, failure to achieve intended goals may be due to poor implementation rather than poor program design (Rossi et al., 2004; Mears, 2010). To date, however, there are no systematic empirical accounts, by year, that document the extent to which the housing is used according to design (King, 1999; Kurki & Morris, 2001; Shalev, 2009; Mears & Bales, 2010; Browne et al., 2011; Katel, 2012; Mushlin, 2012; Reiter, 2012; Mears, 2013; U.S. Government Accountability Office, 2013; McGinnis et al., 2014). It is therefore not possible at present to know how (if at all) restrictive housing has contributed to the benefits or harms that have been ascribed to it.

Appropriate Implementation Depends on Goals

Determining the appropriate inmate population and operations of restrictive housing depends entirely on the goals associated with it. The ambiguity about the precise goals of restrictive housing — or the weighting of multiple goals — makes such determinations difficult. In addition, many states lack clear restrictive

housing designs or blueprints that detail the theory or causal logic that guides its use. Such blueprints would include information about the following: specific goals, types of inmates who warrant placement in restrictive housing, the length of time in restrictive housing necessary to achieve the goals, and the precise operations, services, and treatment that are collectively expected to achieve these same goals. Ambiguity about the goals, theory, or design of restrictive housing creates ambiguity about assessing implementation. By extension, ambiguity in assessing the extent to which restrictive housing is used appropriately — that is, as intended — creates ambiguity in determining how to interpret its estimated or assumed impacts (Mears, 2006, 2008b, 2013).

Appropriate Implementation of Protocols, Rules, and Procedures

The federal government and states have protocols, rules, and procedures for restrictive housing (National Institute of Corrections, 1997; Austin et al., 1998; Riveland, 1999; Neal, 2003; Bruton, 2004; Collins, 2004; Mears, 2006; Shalev, 2009; Butler et al., 2012; Association of State Correctional Administrators, 2013; U.S. Government Accountability Office, 2013; McGinnis et al., 2014; Richards, 2015). A review by Kenneth McGinnis and colleagues, for example, provided an extensive description of the Federal Bureau of Prisons' special housing units (McGinnis et al., 2014). They found substantial gaps in documentation assessing whether the Bureau's housing is used appropriately and with fidelity to its design. The review also found that although the "general conditions of confinement in restricted housing units are consistent with national regulations and standards, the Bureau does not have adequate non-punitive protective custody housing units that have equivalent levels of programs and privileges as general population inmates." They also found that "backlogs in inmates awaiting transfer to the next program level negate the intent of the program design and decrease the motivation to change behavior." In addition, the team found that "mental health services in restrictive housing require improvement in three specific areas: (1) proper mental health diagnoses, (2) more effective treatment, and (3) providing sufficient psychiatric staffing." The team concluded that "the lack of time parameters for completion of disciplinary hearings results in substantial variation among facilities in the amount of time served in segregation for similar offenses, and can result in disproportionately long sanctions" (McGinnis et al., 2014). It is likely that comparable reviews of state prison systems would identify similar gaps between intended and actual operations of restrictive housing (Riveland, 1999; Briggs et al., 2003; Pizarro & Stenius, 2004; Mears, 2006, 2013; Mears & Watson, 2006; Reiter, 2012; Labrecque, 2015b; Richards, 2015).

Appropriate Dose of Restrictive Housing

The proper amount, or dose, of any intervention or policy requires an explicit articulation of the theory and research that justify a given level of treatment.

Too little intervention may result in no improvement, and too much may be unnecessary and harmful. What dose of restrictive housing is required to protect or punish an inmate? What dose is required to deter both inmates who experience restrictive housing (specific deterrence) and general population inmates (general deterrence)? Finally, what dose is required to improve systemwide safety and order, reduce gang influence, or improve correctional system efficiency or public safety?

To date, few studies have documented the precise lengths of stay that inmates in restrictive housing experience, the frequency of their placement in such housing, or the percentage of all prison system inmates placed in restrictive housing at some point or another. Those few studies suggest that terms of confinement in restrictive housing can range from days, weeks, or months to 10 or more years; that inmates can cycle into and out of restrictive housing repeatedly; and that prison systems devote widely varying percentages of bed space to restrictive housing (Barak-Glantz, 1983; National Institute of Corrections, 1997; King, 1999, 2007; Mears & Bales, 2010; Reiter, 2012; U.S. Government Accountability Office, 2013; Beck, 2015; Shames et al., 2015). However, no clearly articulated theory exists that establishes the precise durations needed in restrictive housing, or the number of inmates who need to be placed in it, to achieve its various intended goals.

Appropriate Inmates for Restrictive Housing

Whether an inmate is an appropriate candidate for restrictive housing depends first on the goals and design of the housing. For example, if it is used for protective custody, then inmates should be placed in restrictive housing when they meet a predefined set of criteria that indicate they need protection that cannot be provided through less costly or intrusive strategies. If punishment is the goal, then only those inmates who engage in acts that warrant punishment should be placed in restrictive housing. Not least, if restrictive housing serves any of a range of more general managerial goals, then these goals — and the types of inmates whose placement in restrictive housing could achieve these goals — must be explicitly articulated. As discussed above, the varying goals and the ambiguity in the theory or design of restrictive housing complicate any assessment of its implementation. Some studies have described random (representative) samples or non-random (nonrepresentative) samples of inmates in restrictive housing, as well as reports about the characteristics of individuals in such housing (Suedfeld, 1974; Suedfeld et al., 1982; Haney, 2003; Mears & Castro, 2006; Mears & Watson, 2006; Shalev, 2009; Mears & Bales, 2010; Reiter, 2012; O’Keefe et al., 2013; McGinnis et al., 2014; Baumgartel et al., 2014; Beck, 2015; Helmus, 2015; Labrecque, 2015; Richards, 2015). These studies do not, however, establish clearly whether appropriate inmates have been placed into restrictive housing.

Perhaps the only clear area of agreement in the literature is that nuisance inmates and the seriously mentally ill should not reside in restrictive housing. Yet, nuisance inmates clearly can and do get placed in restrictive housing (Riveland, 1999; Lovell et al., 2000; Kurki & Morris, 2001; Pizarro & Stenius, 2004; Mears, 2006, 2013; O’Keefe, 2008; Shalev, 2009; Browne et al., 2011; Richards, 2015), as do seemingly large numbers of inmates with serious mental disorders (Kurki & Morris, 2001; Haney, 2003; Cloyes et al., 2006; Mears, 2006; Smith, 2006, 2008; Kupers, 2008; Lovell, 2008; O’Keefe, 2008; Kupers et al., 2009; Shalev, 2009; O’Keefe et al., 2011; Beck, 2015; Richards, 2015). The precise prevalence of nuisance inmates or the seriously mentally ill in restrictive housing — by state and over time — is unknown. However, a large number of studies and reviews have found that many inmates who are not appropriate for restrictive housing reside in it and may do so for extended periods of time, suggesting that facilities may not be using restrictive housing as an option of last resort (Riveland, 1999; Lovell, et al., 2000; DeMaio, 2001; Kurki & Morris, 2001; Haney, 2003; Pizarro & Stenius, 2004; Cloyes et al., 2006; Mears, 2006, 2013; Smith, 2006; Kupers, 2008; Lovell, 2008; Kupers et al., 2009; Shalev, 2009; Mears & Bales, 2010; Browne et al., 2011; O’Keefe et al., 2011; Baumgartel et al., 2015; Beck, 2015; Labrecque, 2015a; Richards, 2015; Shames et al., 2015).

Implementation and Impact

Appropriate implementation can be viewed as an important goal in its own right. From this perspective, state and federal prison systems ideally can provide empirical research that documents fidelity to the protocols, rules, and procedures for restrictive housing. Full and appropriate implementation is important, too, for determining whether restrictive housing can or is likely to produce intended outcomes. Accordingly, the absence of systematic empirical research on the implementation of restrictive housing means, by extension, that it will remain difficult to determine whether restrictive housing can be credited with achieving the goals set forth for it.

Impacts

Research on restrictive housing impacts can be summarized briefly. First, extant research does not provide a credible foundation on which to assert with confidence the impacts of restrictive housing in general or in specific prison systems. Second, few empirical studies of restrictive housing impacts have been undertaken. Third, extant studies examine only a small number of relevant outcomes. Fourth, these studies typically have not relied on strong methodological designs — including the use of relevant comparison groups or conditions — which makes it difficult to know whether restrictive housing causes observed outcomes. Fifth, even if many credible evaluations of impacts across a

range of outcomes existed, questions would remain about how to interpret them because the need for and the theory and implementation of restrictive housing have not been well established empirically. For example, if an evaluation found that restrictive housing failed to improve systemwide safety and order, that failure might be due to faulty design (e.g., restrictive housing simply does not work) or poor implementation (e.g., the inmates most appropriate for such housing were not placed in it).

Collectively, these limitations underscore the considerable need for caution in drawing conclusions about the impacts of restrictive housing. The discussion below identifies potential impacts, intended or not, of restrictive housing (Mears & Watson, 2006). Because impact assessments hinge entirely on identifying the appropriate counterfactual — that is, what would have happened had restrictive housing not been used — this issue is discussed first. The discussion then turns to the potential impact of restrictive housing on prison safety and order, inmates during and after release (including re-entry to society), retribution, gang influence, society, and prison system operations. The discussion also describes potential impacts of not using restrictive housing when it may be needed and, conversely, of using it when it may not be needed.

Impacts and Counterfactuals

A valid evaluation of the impact of restrictive housing requires information about what a prison system would have done instead of using restrictive housing. Unfortunately, it frequently is not clear what the counterfactual condition entails. Would a prison system have continued to employ its typical array of strategies for addressing a particular problem? Invested more in one particular strategy, such as strategically dispersing inmates throughout the prison system? Built a new maximum security prison? Increased treatment and rehabilitative programming? Improved officer training? Promoted cultural change among officers and inmates?

In each instance, what the prison system would have done likely depends on which problem it sought to solve. There might have been a greater need for punishing inmates, protecting them, or reducing gang violence or prison riots. Each need entails different potential sets of responses.

To further complicate the situation, researchers typically do not know what would have happened had restrictive housing not been an option. Identifying the relevant counterfactual requires guidance from corrections officials about what they would have done. Consider a situation in which inmates released from restrictive housing are compared with inmates from a prior time period who seem to be similar in all respects but could not be placed in such housing. The assumption here is that the prison system would have continued in a business-as-usual mode had it not built restrictive housing. That assumption might be correct. However, officials might have invested in other strategies to address a

particular perceived problem if they could not rely on restrictive housing. Here, then, using “matched” inmates from a prior time period would be inappropriate.

The lack of clarity about the most appropriate or relevant counterfactual to use when estimating restrictive housing impacts undermines almost all extant empirical studies of the effects of restrictive housing. These studies still can and do offer insight into the impacts of restrictive housing, but the insight ultimately is about potential impacts as compared to a largely unknown counterfactual. This issue also confronts any attempt to estimate the impact of reducing restrictive housing. What is the impact of reducing the use of restrictive housing? The answer depends greatly on what the prison system otherwise would do.

Impacts on Prison System Safety and Order

Few studies have empirically examined the effects of restrictive housing on systemwide safety and order. A study by Howard Bidna in the 1970s found little evidence that a lockdown of many of California’s maximum-security prisons affected stabbings in high-security units but some evidence that it reduced stabbings in other units (Bidna, 1975). Research by Ben Crouch and James Marquart suggested that Texas’ use of supermax housing may have reduced prison system homicides in the 1980s (Crouch & Marquart, 1989). Neither study included comparison sites or examined a diverse range of measures of violence or disorder. In what remains the strongest evaluation of supermax prison effects to date, Chad Briggs and colleagues compared three experimental sites (Arizona, Illinois, and Minnesota) and one comparison site (Utah) and then sought to determine whether systemwide levels of inmate-on-inmate and inmate-on-staff assaults declined more in the experimental sites (Briggs et al., 2003; see also Sundt et al., 2008). Little evidence of a consistent or appreciable beneficial impact of supermaxes surfaced; most of the analyses identified null effects, some pointed to modest reductions in violence, and one pointed to an increase. Beyond such studies, there exist primarily anecdotal accounts (including interviews with non-random samples of staff or inmates) that suggest a range of possible benefits and possible harms (Kurki & Watson, 2001; Briggs et al., 2003; Haney, 2003; Bruton, 2004; Rhodes, 2004; Mears, 2006; Mears & Watson, 2006; Shalev, 2009; Mears, 2013; Richards, 2015; Valera & Kates-Benman, 2015).

In short, there remain almost no strong evaluations of the systemwide impacts of restrictive housing on inmate or staff safety or on the orderly operations of prison systems. Indeed, there are virtually no methodologically rigorous studies that examine the effects of restrictive housing on order alone; that is, the extent to which restrictive housing improves the amount and quality of inmate rule compliance and the day-to-day operations of prison systems.

Some qualitative research accounts suggest that restrictive housing may be helpful in managing a crisis, such as a prison riot (Crouch & Marquart, 1989;

Ward & Werlich, 2003; Mears, 2008a; Austin & Irwin, 2012). However, there remains little methodologically rigorous empirical research to support that claim or to suggest that restrictive housing prevents riots.

Restrictive housing may seem to incapacitate inmates from contributing to violence or disorder. However, inmates can and do affect both while in such housing (Austin et al., 1998; Preer, 2004; Mears & Watson, 2006; Mears, 2013). On theoretical grounds, restrictive housing might contribute to improved systemwide safety and order through incapacitation, deterrence, and normalization of prison environments, but it might as easily worsen these outcomes. For example, use of restrictive housing might divert resources from more effective strategies and better prison management, and it may antagonize inmates in restrictive housing and in other prison facilities (Briggs et al., 2003; Mears & Reisig, 2006). Such possibilities remain largely unexamined empirically.

Impacts on Inmates While in Restrictive Housing

Considerably more research has focused on the impact of restrictive housing on individuals while they reside in restrictive housing rather than after they leave it. This research has tended to focus almost exclusively on mental health. A range of outcomes is relevant to assessing the impact of restrictive housing on inmates.

Protection — Less Victimization

A goal of restrictive housing is to protect inmates from victimization. Any such benefit depends on placing individuals most at risk of victimization in the housing. It also depends on the duration of the placement. A temporary stay in restrictive housing might prevent victimization during that stay, but it would do nothing to protect the inmate upon release. Little systematic empirical research has been undertaken to document the prevalence of restrictive housing for the purpose of protecting an inmate, the extent to which only highly at-risk individuals experience protective custody housing, the extent to which they are victimized upon release, and whether the rate of victimization declined after such custody. It may be safe to assume that certain inmates are victimized less often while in restrictive housing. However, it is possible, if not likely, that protective custody placement may increase victimization once the inmate is released back into general population facilities. It is also possible that some inmates are placed in restrictive housing under the auspices of seeking to protect them when in reality the primary goal is to remove nuisance inmates from these facilities (Lovell et al., 2000; Richards, 2015).

Misconduct

Inmates can and do engage in misconduct while in restrictive housing; indeed, some accounts suggest that housing design may directly induce violent behavior

(Austin et al., 1998; Bruton, 2004; Preer, 2004; Rhodes, 2004; Mears & Watson, 2006; King et al., 2008; Richards, 2015). The precise prevalence of misconduct among inmates in restrictive housing is not known. It also is not known how much the type or rate of misconduct decreases when an inmate is placed in restrictive housing.

Mental Health

Since the 1970s, a large number of studies have suggested that restrictive housing may harm inmates' mental health. In fact, mental illness is substantially more prevalent in the inmate population than in society at large (Mears, 2004; Mears & Cochran, 2012, 2015; Prins, 2014). Accordingly, inmates with mental illness can and do get placed in restrictive housing, despite legal challenges to this practice (Haney, 2003; Smith, 2006; Kupers et al., 2009; Beck, 2015; Haney et al., 2015). Whether restrictive housing causes mental illness or exacerbates existing mental illness is less clear. On the one hand, numerous studies document that inmates in restrictive housing have a mental illness and report that restrictive housing appears to contribute to the illness. This view is supported by the argument that humans fundamentally are social beings and that depriving them of social contact for extended periods contributes to mental illness, self-harm, and possibly suicide (Grassian, 1983; Haney, 2003; Smith, 2006; Dye, 2010; Kaba et al., 2014; Lanes, 2015; Shames et al., 2015). On the other hand, few studies exist that include appropriate, matched comparison groups to document the effect of restrictive housing on inmates with mental illness relative to what otherwise would happen to these inmates (Smith, 2006; Mears, 2008b, 2013; Gendreau & Labrecque, 2015). An exception is a study by Maureen O'Keefe and colleagues that found little evidence that restrictive housing caused mental illness (O'Keefe et al., 2011, 2013). This finding was echoed by a meta-analysis of prior published work (Gendreau & Labrecque, 2015).

The effect of restrictive housing on an inmate's mental health likely varies depending on a variety of factors. These factors include the extent to which inmates actively seek placement in restrictive housing, the duration of exposure to it, the ability of certain individuals to cope with isolation, and the conditions of confinement, such as the availability of treatment and programming and the quality of inmate and staff relationships (Lovell et al., 2000; Kurki & Morris, 2001; Mears & Watson, 2006; O'Keefe et al., 2011, 2013; Mears, 2013; O'Donnell, 2014; Gendreau & Labrecque, 2015; Morris, 2015; Richards, 2015; Valera & Kates-Benman, 2015). The effect likely varies, too, depending on the counterfactual condition, such as transfer to or placement in a maximum-security prison or mental health facility. Such possibilities have not been subjected to empirical analysis.

Physical Health

No systematic empirical research has been undertaken to document changes in the physical health of individuals placed in restrictive housing. However, confinement to a small cell likely contributes to minimal active movement or exercise and, by extension, associated harms (Booth et al., 2012).

Participation in Rehabilitative Programming

Studies show that inmates receive little or no rehabilitative programming, and services and treatment more generally, while in restrictive housing, and such programming is or may be of low dose and quality (Kurki & Morris, 2001; Haney, 2003; Mears & Watson, 2006; O’Keefe et al., 2011; Gendreau & Labrecque, 2015; Haney et al., 2015; Richards, 2015). However, the precise magnitude of difference between programming, or its effects, in restrictive housing and the general prison population is unknown and has not been documented for individual states or over time.

Ties to Family, Friends, and Communities

Inmates typically fear the loss of ties to family, friends, and their home communities (Adams, 1992). The fear is justified — few inmates receive visitors or sustain contact with their social networks outside the prison walls (Bales & Mears, 2008; Cochran & Mears, 2013). This separation may weaken ties to family and contribute to inmate misconduct, recidivism, and poor re-entry outcomes (Mears & Bales, 2008; Cochran, 2012; Mears et al., 2012; Cochran & Mears, 2013; Cochran et al., 2014; Siennick et al., 2013). Inmates in restrictive housing typically cannot or do not receive visits or telephone calls. However, the precise effect of restrictive housing, and its varying duration, on social ties to others remains largely unstudied.

Risk of Misconduct and Reoffending

While inmates reside in restrictive housing, they may change in ways that contribute to the likelihood of a specific deterrent effect upon release from the housing. At the same time, they are unlikely to receive rehabilitative programming, services, or treatment, which means that restrictive housing does little to address criminogenic factors that contribute to misconduct and recidivism. To date, however, no studies have systematically examined the change in an inmate’s propensity to engage in misconduct from the time of entry into restrictive housing to release from it.

Impacts on Inmates During Re-entry Into General Population Prisons

Restrictive housing may affect inmates while they are confined to it, but it also may affect them after they return to the general prison population. Here, again, a range of outcomes may be relevant to evaluating the impacts of restrictive housing.

Protection — Less Victimization

There are no systematic or rigorous research studies that have documented the effect of restrictive housing on victimization of inmates after they leave it. Some research indicates that inmates may seek to be placed in restrictive housing for their own safety (Lovell et al., 2000; Mears & Watson, 2006; Gendreau & Labrecque, 2015). Indeed, it is also possible that placement in restrictive housing may signal to other inmates that a particular inmate is vulnerable or a problem. One inmate's account indicates, for example, that "convicts look down on 'checking in [to restrictive housing]'" for protection or to detox, avoid paying a gambling debt, or to "take a break" (Ferranti, 2015:55). It is also possible that placement in restrictive housing may give an inmate a reputation as someone who is tough and warrants challenging, or it may reduce the inmate's ability to cope with other people, thereby increasing the risk of victimization (Haney, 2003; Mears & Watson, 2006). However, no studies yet have empirically evaluated possibilities.

Misconduct

A stay in restrictive housing may deter inmates from future misconduct. Conversely, it may antagonize them — what has been referred to as the "rage hypothesis" (Ward & Werlich, 2003) — or increase their risk of misconduct. Few studies have tested this idea. One study of inmates, which used a matching design, found that short-term stays in solitary confinement as punishment did not appear to increase infractions (Morris, 2015). The study has its limitations; it focused on one large southern state, did not examine protective custody or administrative management segregation, and excluded gang members and inmates sentenced to capital punishment or life without parole. Accordingly, its generalizability to other states or other uses of restrictive housing is unknown. A separate study examined adult inmates in Ohio who were serving at least one year in prison and were placed in solitary confinement for punishment. This study, too, found no robust evidence that restrictive housing contributed to subsequent misconduct (Labrecque, 2015).⁹ There was, however, some evidence that, among mentally ill inmates and gang members, solitary confinement might be associated with subsequent nonviolent or drug misconduct (Labrecque, 2015:113). Both studies stand out because they constitute the only studies to

⁹ The motivation for the Morris (2015) paper stemmed in part from the fact that no published empirical study had examined the impact of restrictive housing, among the individual inmates exposed to it, on their subsequent in-prison behavior. Labrecque's (2015) study was undertaken after the Morris (2015) study was published.

date to employ strong research designs to examine restrictive housing effects on misconduct. Their generalizability to other populations (e.g., inmates in restrictive housing for non-punitive reasons or for extended periods) or states is unknown.

Mental Health

The inference from extant research is that restrictive housing may adversely affect inmate mental health prior to and after release from restrictive housing. However, recent work and a meta-analysis raise questions about such claims (O’Keefe et al., 2011; Gendreau & Labrecque, 2015). Research on the effects of restrictive housing on inmate mental health has focused primarily on the period of time in which the inmates reside in the housing. Many studies proceed from the assumption that restrictive housing creates near-instantaneous effects on mental health (O’Keefe et al., 2011; Gendreau & Labrecque, 2015). The effect of restrictive housing on subsequent in-prison mental health outcomes has not been systematically evaluated using “apples to apples” comparisons between inmates exposed to restrictive housing and similar inmates who were not. Some researchers have suggested that, though restrictive housing may have harmful effects on inmate mental health, longer exposure to restrictive housing is required (Kupers, 2008; O’Keefe et al., 2013). Research has not examined the range of restrictive housing stays and conditions across different populations and prison systems using matched comparison groups to assess such possibilities.

Physical Health

Studies have not systematically evaluated the effects of restrictive housing on inmates’ physical health during or after release from it. Some commentaries and qualitative accounts involving nonrepresentative samples suggest that placement in restrictive housing might lead to a greater risk of victimization after release. For example, an inmate may have acquired or reinforced an affiliation as a gang member while in restrictive housing, or alternatively, that inmate may have denounced an affiliation and so exposed himself or herself as a potential snitch (Hunt et al., 1993; Kassel, 1998; Kurki & Morris, 2001; Briggs et al., 2003; Mears & Watson, 2006; King et al., 2008; Richards, 2015).

Participation in Rehabilitative Programming

Little is known about the extent to which inmates released from restrictive housing engage in or receive rehabilitative programming and whether receipt of programming varies from what it otherwise would be if inmates had not been placed there. To the extent that restrictive housing adversely affects mental health, there would seem to be a need for more such programming. To the extent that it contributes to increased misconduct, inmates may be more likely to be returned to restrictive housing, thereby reducing their opportunities for rehabilitative intervention even more. This possibility, however, remains largely unexamined empirically.

Ties to Family, Friends, and Communities

Restrictive housing — particularly lengthy stays — may weaken or sever inmates' ties to other inmates and to family members, friends, and others in their home communities. To the extent that social ties are helpful in navigating and coping with prison life, and that restrictive housing stays degrade these ties (Adams, 1992; Bottoms, 1999; Cochran, 2012; Mears & Cochran, 2015), inmates may be more likely to experience adverse outcomes when they return to general population facilities. This possibility, too, has not been examined empirically.

Risk of Reoffending

An inmate's risk of recidivism might increase or decrease as a result of time in restrictive housing, and this change might be greater among inmates who have greater exposure — whether through total duration or frequency of placement — to restrictive housing. Although several studies have examined restrictive housing and recidivism, none has estimated changes in the risk of reoffending at the point of release from restrictive housing to general population facilities or to society.

Impacts on Inmates During Re-entry Into Society

Recidivism

Few studies exist that use methodologically strong research designs, such as matching analyses, to examine restrictive housing impacts on recidivism.¹⁰ One exception is a study of supermax inmates in Washington state. David Lovell and colleagues found that supermax incarceration was not associated with recidivism; however, inmates released directly from supermax incarceration were more likely to recidivate compared to inmates with supermax stays that entailed first returning to a general inmate population facility before release (Lovell et al., 2007). A related study of Washington state inmates that employed a weaker research design found that restrictive housing was associated with a greater likelihood of violent recidivism (Lovell & Johnson, 2004). Another study examined supermax incarceration among Florida inmates. Using propensity score matching, the study found a positive effect of supermax incarceration on violent recidivism but no effect on general recidivism (Mears & Bales, 2009). It also found no evidence that time in supermax housing or direct-release from it to society exerted a greater effect on reoffending. Finally, a study by Daniel Butler and colleagues found no significant effect of supermax housing on recidivism (Butler et al., forthcoming, as reported in Steiner & Beard, 2015).

¹⁰ The motivation for the Morris (2015) paper stemmed in part from the fact that no published empirical study had examined the impact of restrictive housing, among the individual inmates exposed to it, on their subsequent in-prison behavior. Labrecque's (2015) study was undertaken after the Morris (2015) study was published.

Collectively, these few studies suggest that restrictive housing may increase violent recidivism. Whether the total duration in or timing of release from restrictive housing matters is unclear. Indeed, the main conclusion mirrors that for other outcomes — too few methodologically strong studies have been conducted to state with confidence the effect of restrictive housing. Extant studies not only are few in number, but they also do not systematically evaluate the impact of various dimensions of restrictive housing, such as the effects of using restrictive housing for protective custody or punishment or the potential for effects to vary according to the characteristics of inmates or the conditions in restrictive housing.

Employment

Prison may adversely affect the employment prospects of individuals (Mears & Cochran, 2015). Empirical research has not systematically examined how different types of prison experiences may differentially influence employment outcomes upon release. Short-term stays in restrictive housing would appear, on the face of it, to exert little appreciable effect on such outcomes. Longer-term stays, however, might do so by limiting participation in vocational and educational programming as well as in re-entry planning. Restrictive housing also might affect employment outcomes by adversely affecting inmates' mental health. Regardless, to date only one study has examined restrictive housing's effect on employment; it found no evidence that such housing harmed employment after an inmate is released into society (Butler et al., forthcoming, as reported in Steiner & Beard, 2015). It is presently unknown what would be found in state-by-state studies of varying doses of restrictive housing and of different approaches to the design and operation of restrictive housing.

Mental Health

Research that examines mental health outcomes among inmates during their stays in restrictive housing has been hampered by methodological limitations, and few studies have examined mental health outcomes among inmates after they leave restrictive housing and return to general population facilities. No methodologically rigorous studies have examined the long-term effects of restrictive housing on inmate mental health during incarceration and after re-entry into society.

Physical Health

No empirical research has used strong study designs to systematically examine the impacts of restrictive housing on the physical health outcomes of inmates when they return to society. The accounts of gang members suggest the possibility, one not evaluated empirically, that placement in restrictive housing may increase the risk of victimization when inmates return to society (Hunt

et al., 1993; Kassel, 1998; Kurki & Morris, 2001; Briggs et al., 2003; Mears & Watson, 2006; King et al., 2008; Richards, 2015).

Ties to Family, Friends, and Communities

Here, again, there is no empirical research that draws on strong methodological research designs to estimate the effect of restrictive housing on ties to family, friends, and communities.

Impacts on Punishment (Retribution)

One of the central justifications for, or goals of, restrictive housing is to punish inmates (King, 1999; Riveland, 1999; Lovell et al., 2000; Kurki & Morris, 2001; Neal, 2003; Shalev, 2009; Browne et al., 2011; Mears, 2013; Beck, 2015; Morris, 2015). Such punishment can be viewed as instrumental in promoting specific or general deterrence. However, it also clearly has been and is viewed as a goal in and of itself. Whether restrictive housing achieves a desired level of retribution has not, to date, been empirically evaluated by researchers. To do so would require an empirically based, explicitly articulated calculus of a given set of sanctions, including restrictive housing. This type of “science of punishment” — or, more specifically, science of retribution — has not been developed (Mears et al., 2015:706). If applied to restrictive housing, any such science would need to examine the amount of perceived punishment among those sent to restrictive housing as well as the amount of perceived punishment among other inmates and the prison administration. In so doing, it would need to take into account the fact that some inmates may seek placement in restrictive housing, while others may be greatly harmed by it. Without such information, the extent to which restrictive housing achieves the goal of retribution will remain unclear — both conceptually and empirically.

Impacts on Gang Influence

Some prison systems have used restrictive housing as a means by which to control gangs and reduce their influence on prison operations and violence (Ralph & Marquart, 1991; National Institute of Corrections, 1997; Ward & Werlich, 2003; Pizarro & Stenius, 2004; Mears & Castro, 2006; Mears & Reisig, 2006; Shalev, 2009; Mears & Watson, 2006; Naday et al., 2008; Sundt et al., 2008; Butler et al., 2012; Reiter, 2012; Mears, 2013; McGinnis et al., 2014; Richards, 2015). To date, there are no methodologically rigorous evaluation of the impact of restrictive housing on gang influence. Such studies would need to examine rates of misconduct before and after the use of restrictive housing or in relation to changes in how much it is used, and they should address potential confounding from other strategies that prison systems simultaneously employed to address gang activity. The latter issue is critical because when prison systems face a crisis of any kind — such as riots or a

dramatic increase in violence or disorder — they will employ a range of strategies. That approach is understandable but makes it difficult to isolate the unique effects of restrictive housing.

Existing accounts point to ways in which restrictive housing may decrease or increase gang influence and violence. Beneficial effects may arise when restrictive housing allows prison officials to inhibit gang leadership. Harmful effects may arise when the leadership is replaced, new gangs emerge to fill a void, reliance on restrictive housing distracts officials from focusing on potential root causes of gang problems or prison violence, and so on. However, extant research has not addressed these methodological issues and, therefore, provide little credible basis on which to claim that restrictive housing affects gang activity in either the short term or long term.¹¹

Impacts on Society

Restrictive housing might benefit society by improving re-entry outcomes and by enabling the prison system to operate more effectively and efficiently. For example, if staff can better perform their roles and obligations and rehabilitative programming can be better implemented, an improvement might occur in aggregate inmate behavior and recidivism, as well as housing, mental health, and employment outcomes (Mears & Reisig, 2006). Such benefits might arise from improvements among inmates sent to restrictive housing or general population inmates.

Conversely, restrictive housing may harm society by worsening outcomes for segregated housing and general population inmates and officers.¹² It might distract officials and divert funding from the causes of the problems that restrictive housing seeks to address such as violence, disorder, and gangs.

¹¹ Thoughtful attempts to study restrictive housing impacts on gang activity exist and paint a mixed portrait. Ward and Werlich's (2003) account suggests that prison wardens view restrictive housing as effective in controlling gangs (see also Mears & Castro, 2006). Paige Ralph and James Marquart (1991) examined whether use of Texas supermax facilities to house gang leaders affected gang violence; they found little evidence that it did so (as compared to Austin et al., 1998). Geoffrey Hunt and colleagues (1993) interviewed ex-prisoners who reported ways in which placing gang members in restrictive housing might increase prison violence. One mechanism is that doing so may create a "vacuum" of power in the inmate culture that allows new and potentially more dangerous prison gangs to emerge. The study did not directly examine systemwide effects of restrictive housing on gang-related activity. Other empirical accounts that rely on non-random samples or qualitative research methodologies exist and identified mixed findings (see, generally, Kassel, 1998; Bottoms, 1999; Briggs et al., 2003; Mears & Watson, 2006; Pizarro & Narag, 2008; Austin & Irwin, 2012; O'Donnell, 2014; Richards, 2015).

¹² "[Solitary confinement] is not solely a corrections issue; the overwhelming majority of people incarcerated will be released, and the impact of long periods of isolation on their health, employability, and future life chances will be felt in the families and communities to which they return. It is important to understand the health impacts of the widespread use of segregation at the population level, in addition to assessing the effect of time spent in solitary confinement on individual health outcomes" (Cloud et al., 2015:21; see also Mears, 2013).

It also might engender a culture of abuse among officers and of defiance among inmates. In addition, it might harm inmates' families by eliminating or greatly reducing contact between families and inmates. Finally, use of restrictive housing might harm society by releasing inmates to communities who are less equipped to succeed than they otherwise might be.

These potential benefits and harms are speculative. No systematic, methodologically rigorous evaluations have examined their existence or magnitude. What is known is that prison-based behavioral programs can reduce inmate misconduct and that this benefit can be sustained during their transition into the community (French & Gendreau, 2006). Accordingly, the benefits or harms of restrictive housing may have effects on inmates that also extend into the community.

Impacts of Not Using Restrictive Housing When Needed

When restrictive housing may be needed but is not used, the clear risk of harm arises. For example, if such housing serves as the only viable option for preventing or halting a prison riot, the failure to use it — or to have it available to use — may enable a riot to happen or lead to longer riots. Presently, there is no clear empirical basis for establishing when or how much restrictive housing is needed to achieve various goals. Accordingly, there is no clear basis on which to estimate the harms that may arise from having no — or enough — restrictive housing, or from failing to use it at all or using it in an insufficient dose to achieve a particular goal.

This situation applies to virtually all of the goals associated with restrictive housing. For example, if the goal is to punish inmates, there may be a consequence of not using restrictive housing, but that consequence is not clear. Many options exist for punishing inmates. In such a context, the only basis on which to estimate the impacts of not having restrictive housing is to determine precisely which punishments are available and which are appropriate for various acts of misconduct. Prison systems may designate and follow a hierarchy of sanctions, but that practice merely affirms a policy; it does not establish empirically the extent to which restrictive housing is needed or, in turn, the impacts of not employing the housing.

Similarly, if the goal is to protect certain inmates, there may be a consequence of not having or using restrictive housing. However, the consequence cannot be established empirically without first knowing what factors contributed to the need to protect inmates and what other approaches can be adopted to address the problem.

Impacts of Using Restrictive Housing When It May Not Be Needed

When restrictive housing is used but not needed, a range of potential harms may arise, including the diversion of resources from more cost-effective approaches to managing prison systems and inmates, creation of a culture of abuse among officers, and emergence of a culture of inmate hostility and defiance. Other possibilities include greater harm to officers, higher rates of mental illness among inmates, more inmate misconduct, and worse re-entry outcomes for all inmates, especially for those who have experienced restrictive housing. There is no empirical research that directly identifies the extent of such harms or the extent to which restrictive housing is not used as an option of last resort (Mears, 2013). Studies have documented potential harms of restrictive housing, but they have not systematically and simultaneously evaluated the range of benefits and harms associated with its use. Accordingly, those studies primarily draw attention to a particular benefit or harm without demonstrating the net benefit or harm relative to a particular counterfactual (Mears & Watson, 2006).

Cost-Efficiency

Impacts alone are irrelevant if they are small, are offset by substantial financial costs, or could be achieved more effectively through alternatives. To date, no research documents the effect of the cost-efficiency of restrictive housing on the overall efficiency of jails and prison systems (Lawrence & Mears, 2004; Pizarro & Stenius, 2004; Mears, 2006, 2008b, 2013; Shalev, 2009). Two important conceptual issues, discussed below, bear on evaluating cost-efficiency.

Restrictive Housing as Presumptive Policy or as Alternative

In the early 1980s, prior to the expansion of restrictive housing, a central policy question was “What is the effect of increasing the use of restrictive housing?” That question remains relevant in contemporary times. However, the widespread use of restrictive housing also raises a related question: “What is the effect of decreasing the use of restrictive housing?” The first question examines the effects of increasing restrictive housing in a context where such housing is little used; the second examines the effects of decreasing restrictive housing in a context where it is widely used. Two implications flow from these opposing circumstances.

First, in both instances, research on the effectiveness of restrictive housing is lacking. Second, the most relevant research question is not necessarily whether restrictive housing should be retained until evidence emerges that more effective and cost-efficient alternatives exist. That question makes restrictive housing appear to constitute the presumptive policy. The equally relevant question begins with presuming that restrictive housing constitutes an alternative to other

policies for protecting, punishing, and managing inmates, and for achieving prison system goals.

The Cost-Efficiency of Restrictive Housing and Other Approaches

Prison systems seek to achieve a range of goals (e.g., protecting, punishing, and managing inmates, and creating a safe and orderly environment) that not only minimizes harms to inmates and staff but also prepares inmates for re-entry into society. Prison systems can employ a wide range of approaches to achieve these goals. Approaches include —

- Better inmate classification.
- Dispersing certain inmates strategically throughout the prison system.
- Increasing and improving staff training, education, and professionalism.
- Improving inmate culture.
- Improving officer culture.
- Ensuring fair and consistent enforcement of rules.
- Implementing and using incentives to motivate inmates to comply with prison rules.
- Providing evidence-based cognitive-behavioral treatment and rehabilitative, vocational, and educational programming.
- Structuring the prison environment and activities in ways that reduce opportunities for misconduct and promote rule conformity and participation in programming (DiIulio, 1987; Logan, 1993; Sparks et al., 1996; Gendreau et al., 1997; Reisig, 1998; Bottoms, 1999; Gendreau & Keyes, 2001; Kurki & Morris, 2001; Briggs et al., 2003; Irwin, 2005; French & Gendreau, 2006; Mears, 2008a, 2008b, 2013; Pizarro & Narag, 2008; Sundt et al., 2008; Useem & Piehl, 2008; Cullen et al., 2014; Browne et al., 2015; Wooldredge & Steiner, 2015).

How cost-efficient is each approach, or combination of approaches, to achieving prison system goals? That question remains largely undetermined. Instead, research documents that some approaches effectively improve certain outcomes in certain contexts. No rigorous comparative empirical analyses of the effects of the different approaches exist. Yet, the fact that such a diversity of approaches exists highlights the problem of assuming that restrictive housing is needed or that it is more effective and cost-effective than other approaches at achieving various prison system goals.

Critical Research Gaps and Questions

An abundance of research gaps and questions on restrictive housing have been identified by researchers.¹³ Addressing them presents many opportunities to advance science and policy. For example, knowledge about the conditions that create safe and orderly prisons would contribute to theory and scholarship aimed at understanding how organizations operate. It also would contribute to corrections officials' efforts to improve safety and order in their prison systems.

Below are some of the most critical empirical research gaps and questions that bear directly or indirectly on efforts to understand the impacts of restrictive housing on inmates and the institutional environment of prison systems. The gaps and questions can be organized broadly into five categories: need, theory, implementation, impacts, and cost-efficiency. They include, however, additional areas that relate to restrictive housing impacts and efforts to improve the science and policy on this housing.

Restrictive Housing Classification

Restrictive housing discussions are severely hampered by inconsistent definitions of the housing and its design and goals. Definitions and classifications are not correct or incorrect, but rather more or less useful. Which definitions and classifications are most useful in ensuring that appropriate inmates are sent to restrictive housing to achieve particular goals?

Clarification of the Goals and Need for Restrictive Housing

The goals relate directly to the need for restrictive housing. Clear goals have ripple effects along many dimensions, including identifying appropriate inmates for restrictive housing, the design of the housing, and its impacts. Thus, what are the precise goals of restrictive housing? Which goals should be weighted more heavily than others? For each goal, how many inmates fit the profile of those who require restrictive housing?

¹³ A non-exhaustive listing includes the following: Cooke (1989); Ward (1995); King (1999, 2005, 2007); Rivel & (1999); Lovell & colleagues (2000); Kurki & Morris (2001); Briggs & colleagues (2003); Henningsen & colleagues (2003); Haney (2003); Neal (2003); Toch (2003); Ward & Werlich (2003); Pizarro & Stenius (2004); Mears (2005, 2006, 2008a, 2008b, 2013); Cloyes et al. (2006); Mears & Castro (2006); Mears & Reisig (2006); Mears & Watson (2006); Smith (2006, 2008); Lovell & colleagues (2007); King & colleagues (2008); Kupers (2008); Naday & colleagues (2008); Pizarro & Narag (2008); Sundt & colleagues (2008); Kupers & colleagues (2009); Mears & Bales (2009, 2010); Shalev (2009); Browne & colleagues (2011); Butler & colleagues (2012); Reiter (2012); Mears & colleagues (2013); McGinnis & colleagues (2014); O'Donnell (2014); Pizarro & colleagues (2014); Baumgartel & colleagues (2015); Cloud & colleagues (2015); Frost & Monteiro (2015); Gendreau & Labrecque (2015); Labrecque (2015a); Morris (2015); Richards (2015); Valera & Kates-Benman (2015); U.S. Department of Justice Work Group (2016).

Effective Use of Steps to Reduce the Need for Restrictive Housing

Inmates do not act in isolation. Their behavior typically derives from their individual characteristics and the settings in which they reside. Ignoring the effects of these settings — including the composition of the inmate population and prison conditions, programming, staffing, and management — contributes to inmate misconduct. This in turn creates an apparent need to seek recourse with incapacitating measures, such as restrictive housing. For any given goal associated with restrictive housing, to what extent have other approaches for achieving the goals been pursued? Have they been implemented well? If they have not been pursued or implemented well, then there is likely a need for improvements that target these approaches, rather than a need for restrictive housing.

The Theory of Restrictive Housing

The theory underlying the use of restrictive housing for any of a variety of goals remains poorly developed, which creates missed opportunities to use, design, and modify restrictive housing to maximize benefits and minimize harms. What, then, are the most credible theoretical grounds on which to anticipate that restrictive housing — or a particular design (e.g., duration, deprivations, programming) — will improve any given outcome (e.g., reduced gang influence, reduced violence among the most violent inmates, improved systemwide safety and order)?

Adherence to Protocols, Rules, and Procedures

Numerous protocols, rules, and procedures guide restrictive housing operations, in part to protect against lawsuits (Collins, 2004; Naday et al., 2008; Baumgartel et al., 2015). To what extent do states and the federal government — and various prison facilities — administer restrictive housing in ways that fulfill these different operational requirements and that comport with the Constitution and court rulings (King et al., 2008; Reiter, 2012; Mears, 2013)?

Amount and Quality of Services, Treatment, and Privileges in Restrictive Housing

Prison systems typically purport to offer services, treatment, and some privileges to inmates in restrictive housing. To what extent do these systems actually do so? What is, and what affects, the amount and quality of such amenities? What is the amount and quality of mental health counseling and treatment?

Admissions to and Releases From Restrictive Housing

Restrictive housing operates largely in the equivalent of a black box (Mears, 2005, 2006, 2013; Butler et al., 2012). Little systematic or comprehensive empirical analysis exists — by state or federal prison system and over time — in the actual use of restrictive housing. Some exceptions exist. For example, a study of Washington state inmates in restrictive housing found that they varied greatly in their characteristics. Some had extensive histories of violence and others did not. Approximately one-third had a serious mental illness. Many younger inmates appeared to behave in ways that would result in their placement in intensive management housing as a way to protect themselves. Some inmates spent little time in restrictive housing while others spent most of their total prison stay in it (Lovell et al., 2000).

A study of Florida supermax inmates found that 55 percent had experienced three or more stays in supermax housing (Mears & Bales, 2010). For 44 percent of supermax inmates, their time in restrictive housing constituted less than 15 percent of their total term of incarceration. Fourteen percent of the supermax inmates spent more than half of their incarceration in supermax housing. One inmate in four (28 percent) had been in supermax housing within three months of their release to society. The study also found that younger inmates and black inmates were more likely to be placed in supermax housing; this difference stemmed primarily from these groups engaging in more of the behaviors that lead to such confinement. (The study did not examine whether these inmates were differentially managed and treated by the prison system, which could contribute to such behavioral differences.)

A study of California supermax inmates identified similar variations and patterns (Reiter, 2012). These included widely variable durations — ranging from months to 10 years or more — spent in supermax housing. Other findings included a greater likelihood that Hispanic inmates resided in restrictive housing, approximately one-third or more of inmates being released directly from supermax housing to the streets, and considerable variability in patterns across supermax facilities.

In 2015, BJS released its national study of restrictive housing, which provided a one-time snapshot of restrictive housing in 2011-2012. The report provided more representative and extensive details about restrictive housing inmates than has ever been published (Beck, 2015). As with the 2014 Yale/ASCA survey of corrections administrators, the study documented considerable heterogeneity in the inmate population in restrictive housing and the use of restrictive housing across facilities (Baumgartel et al., 2015). Inmates who spent time in restrictive housing were more likely to be young, lesbian, gay, or bisexual; to have committed a violent offense; and to have a mental illness. Other studies point to additional factors associated with restrictive housing placement, such as gang membership, infractions, and prior stays in segregation (Motiuk & Blanchette

2001; O’Keefe et al., 2011; McGinnis et al., 2014; Helmus, 2015). Some prisons rarely place inmates in restrictive housing, while others do so frequently (King, 1999; Mears, 2006; Baumgartel et al., 2015).

These studies have advanced understanding about the use of restrictive housing — including who is admitted to and released from it — but they provide only one-time snapshots and leave many questions unaddressed. For states and the federal government, critical questions remain to be answered. In every instance, data are needed by year to establish changes in patterns and to explain what accounts for variations in the use of restrictive housing over time. For example, to what extent are policies for restrictive housing fully implemented? What are the demographic, social, criminal, and mental and physical health characteristics of individuals in restrictive housing? What characteristics or behaviors lead to such confinement? What other strategies or options are pursued with these inmates? How frequently and how long do individuals spend time there? To what extent are admission and release processes fair? Which facilities use restrictive housing more than others? Which inmates in restrictive housing experience more benefits and which experience higher rates of self-injury or harm? What factors explain variation across these different dimensions? For example, if minorities are more likely to be in restrictive housing, what explains the difference? How have patterns of restrictive housing use changed over time, and what factors explain such variation?

Impacts of Restrictive Housing

For state or federal prison systems, what are the impacts of restrictive housing for a range of outcomes? Few credible studies of impact exist, and those that do focus on one state, point in time, or outcome. What is needed are studies that employ rigorous research methodologies, including appropriate comparison groups or conditions identified through matching or related procedures, that estimate restrictive housing impacts on a range of outcomes. These include systemwide prison safety and order, gang influence, inmate protection, perceived and objective severity of punishment, and inmate outcomes during and after restrictive housing (e.g., misconduct, self-injury, mental and physical health, family ties). Also needed are reviews of inmate outcomes upon release from restrictive housing to society (e.g., recidivism, employment, reunification with family), as well as restrictive housing’s effects on the inmates’ families and on public health and safety. Other outcomes to be examined include prison system operations and staff (e.g., effects on available programming or on staff), the effects of not using restrictive housing when it is needed, and the effects of using restrictive housing when it is not needed.

In each instance, information is needed on the magnitude of the impacts and the features, including the dose and timing, of restrictive housing that create them. For example, does release directly from restrictive housing affect recidivism?

If so, is the effect greater than that on inmates who are first transitioned from restrictive housing to general population prison facilities before release into the community (Lovell et al., 2007; Mears & Bales, 2009; Reiter, 2012)? Research is also needed on how inmates perceive the experience of restrictive housing. What aspects of the experience — such as duration, staff-inmate interactions, treatment and services, re-entry preparation — might be changed to maximize benefits and minimize harms (Cooke, 1989; Crouch & Marquart, 1989; Bottoms, 1999; Kurki & Morris, 2001; Mears, 2008a, 2008b, 2013; Gendreau & Labrecque, 2015)?

Conditions Under Which Restrictive Housing Achieves Intended Goals

Impact evaluations provide an estimate of the effect of a given policy on one or more outcomes. They do not necessarily provide insight into why exactly the impacts arose. The more general research question, then, is: Under what conditions does restrictive housing achieve its various intended goals? For example, are there certain durations of exposure to restrictive housing that must occur for inmates to be protected or for systemwide safety and order to be increased? What percentage of inmates must be placed in restrictive housing to halt a riot or to prevent one? Under what conditions does litigation improve restrictive housing use and its impacts?

Conditions Under Which Unintended Harms Can Be Minimized

Restrictive housing may contribute to any of a range of unintended harms. For example, it may worsen inmate mental health and possibly contribute to recidivism and systemwide violence and disorder. A related question, then, is: Under what conditions can all appreciable unintended harms be minimized while maximizing any potential benefits?

Impacts of Duration, Frequency, and Recency of Restrictive Housing

The effect of time served in restrictive housing has gone largely unexamined. Time served constitutes a critical issue because it directly relates to cost. Holding inmates longer than necessary wastes scarce resources. If lengthier stays create more benefits, then longer stays may be warranted. Conversely, if they cause more harm, then two negative conditions occur — scarce resources are wasted and their expenditure causes more harm than benefit.

No clear theoretical basis exists for establishing a precise amount of time in restrictive housing that must occur to create particular outcomes. Accordingly, this lack of theoretical basis, along with the apparent heterogeneity in time served, gives rise to a series of questions. How long must individuals reside in restrictive housing to achieve a particular benefit or to produce harm? What are the minimum

durations necessary to achieve benefits? What are the effects of repeated restrictive housing placement? What are the effects on re-entry of the recency of placement in restrictive housing? From a more macro-level perspective, what prison-specific or systemwide numbers or percentages of inmates must be placed in restrictive housing to achieve particular impacts? What are the effects of dramatic increases or decreases in the use of restrictive housing?

Cost-Efficiency of Restrictive Housing Compared to Other Approaches

Restrictive housing stands as but one of myriad approaches that prison systems can use to achieve various goals (DiIulio, 1987; Sparks et al., 1996; Reisig, 1998; Bottoms, 1999; Gendreau & Keyes, 2001; Toch, 2003; French & Gendreau, 2006; King, 2007; Mears, 2008a, 2008b, 2013; Useem & Piehl, 2008; Shalev, 2009; Browne et al., 2011; Association of State Correctional Administrators, 2013; Ross, 2013; Baumgartel et al., 2014; Browne et al., 2015; Frakes, 2015; Shames et al., 2015). How cost-efficient is restrictive housing relative to the other approaches? Ideally, prison systems would have credible answers to this question prior to investing in any particular approach, including restrictive housing. When they already have these approaches and the housing, the relevant comparison can be challenging. What in fact is a prison system willing or able to implement? Can it build a new maximum-security facility? Hire more staff? Invest in more rehabilitative programming? Answers to such questions may be dictated by political considerations or management philosophies. In such instances, cost-efficiency analyses should focus on comparisons to approaches or changes that are most likely to be implemented.

Special Populations, Prison Contexts, and Restrictive Housing

Programs and policies may have different effects on certain groups or in certain contexts (Gendreau et al., 1997; Mears, 2010, 2013; Browne et al., 2015; Morris, 2015). The same possibility holds for restrictive housing, which may have more beneficial or harmful effects for certain groups (e.g., female inmates, inmates with mental illness, very young or older inmates). It also may have variable effects in different prison systems. For example, in a prison system where inmates view correctional administrators as wielding authority in a legitimate manner, restrictive housing may serve as a useful tool for improving safety and order. In a system where inmates view administrators as lacking in legitimacy, restrictive housing may serve primarily to antagonize inmates and reinforce their unwillingness to comply with rules. In short, what are the uses and effects of restrictive housing for different populations and prison system contexts?

Juveniles and Restrictive Housing

The extent to which the juvenile justice system uses restrictive housing or analogous housing is largely unknown. A study in California estimated that “between 10-12 percent of wards were housed in units in which they were confined to their rooms for 23 hours a day” (Krisberg, 2003:51; see, generally, Richards, 2015). The prevalence of restrictive housing since the time of that study or in other states, and the impact of restrictive housing on young people, their families, or the juvenile justice system, remains largely unknown.

Jails and Restrictive Housing

The above-identified research gaps apply even more to the use of restrictive housing in jails, about which almost no empirical research exists. One national study found that the jail inmate population is as likely as the prison population to be placed in restrictive housing and that inmates in jail segregation or prison segregation share many characteristics (Beck, 2015). A study of Rikers Island, one of the largest jails in the country, found that restrictive housing was widely used and that its use often appeared to be inappropriate and harmful (Haney et al., 2015). In general, though, restrictive housing in jails has not been well studied, and it warrants attention because of the large numbers of individuals in jails and the unique challenges that jails face.

Views and Opinions From Corrections Officers and Administrators, Policymakers, and the Public

Restrictive housing is used in part because of the belief that the public supports it and that correctional system officers and administrators find it necessary and effective. Its use, too, stems from policymaker support. However, few studies have systematically examined the views and opinions of these groups. Extant studies suggest that uniform support for restrictive housing should not be assumed. Corrections administrators and wardens, for example, can and do disagree about the need for restrictive housing, its goals or effectiveness, and the conditions under which it is needed and helpful (Wells et al., 2002; Mears & Castro, 2006; Mears & Watson, 2006; Ferdik & McKee, 2015). Legislators, too, have varied understandings and opinions about it (Mears, 2005, 2006; Pizarro & Narag, 2008; Goode, 2012; Baumgartel et al., 2015). Similarly, public opinion varies. In a public opinion study of Floridians, 80 percent of adults expressed support for supermax housing (Mears et al., 2013). However, this support declined to 60 percent when respondents were asked whether they supported its use if no public safety benefit would occur. Approximately 30 percent of respondents viewed restrictive housing as inhumane, but most (70 percent) disagreed. Views about supermax housing varied among groups; for example, whites, men, political conservatives, and

individuals who strongly adhered to a philosophy of punishment as retribution were more likely to support the use of supermax incarceration.

The salience of examining the opinions of the public, prison officers and administrators, and policymakers stems from several considerations. Since restrictive housing constitutes an extreme form of incarceration that many view as inhumane, public opinion should perhaps be considered (Mears et al., 2013). Prison officers and wardens work “on the ground” and may have unique insights about particular inmates, the factors that contribute to particular problems, and how best to address them. Not least, policymakers may correctly or incorrectly understand public views and the problems that prison systems face; taking stock of the public’s or practitioner’s views thus provides a platform on which to ensure that policymakers more fully appreciate and understand the diverse set of considerations that attend the use of restrictive housing.

In short, how do the public, policymakers, and corrections officers and administrators view restrictive housing? What are their opinions about the causes of particular correctional system problems and how best to address them? What explains variation among these groups in their support for restrictive housing, their views about the conditions under which it may be used appropriately, and their opinion about its effectiveness in achieving various goals?

Ethical Concerns and How They Might Be Addressed

Restrictive housing has been criticized by many different groups and organizations, domestic and international, for being inhumane and for being operated in a procedurally unjust manner and in ways that harm inmates (Grassian, 1983; Kurki & Morris, 2001; Haney, 2003; Mears & Watson, 2006; Smith, 2006; King, 2007; King et al., 2008; Shalev, 2009; Katel, 2012; Mears et al., 2013; Amnesty International, 2014; O’Donnell, 2014; Baumgartel et al., 2015; Cloud et al., 2015; Haney et al., 2015; Richards, 2015; Valera & Kates-Benman, 2015). Although it has withstood legal scrutiny for several decades, lawsuits continue to be filed that challenge its use on constitutional grounds and as violating human rights (Collins, 2004; Amnesty International, 2014; Haney et al., 2015). Research is needed that systematically takes stock of the empirical grounds on which the ethical concerns exist. Some individuals may view restrictive housing as fundamentally unacceptable; conversely, others may view it as a moral imperative when inmates engage in certain activities. It is possible, however, that such views derive from misunderstandings about the need for restrictive housing; the theory, uses, impacts, and cost-efficiency of restrictive housing; and the variety of alternative sanctioning and management strategies available to corrections officials. What views, then, do various groups — the public, corrections officials, policymakers, advocacy organizations, and so on — hold about restrictive housing? Are their assumptions about it empirically supported? What steps can state or federal jails or prison systems take to address objective and perceived concerns

about the potential misuse, abuse, or harms of restrictive housing? How can they address disparities in its use among racial and ethnic minorities or other social and demographic groups (Mears & Bales, 2010; Reiter, 2012; Schlanger, 2013)?

How to Improve Research on Restrictive Housing

Conducting research on restrictive housing is not easy (Ward, 1995; Ward & Werlich, 2003; Mears, 2006; Baumgartel et al., 2014; Agha, 2015). A significant barrier to undertaking empirical studies and monitoring restrictive housing is the limited research infrastructure in jail and prison systems. Typically, research divisions in these settings are small and over-extended. They lack the time or resources required to regularly monitor restrictive housing or evaluate its uses, impacts, and efficiency; to conduct financial audits and case studies; or to survey officers, wardens, or inmates about their views of and experiences with restrictive housing. When outside researchers attempt to access jail or prison system data, they frequently confront closed doors. Even when data are made available, researchers typically confront a difficult situation — no codebook exists and the data are complicated to understand and use.

These and other barriers create a situation in which studies of restrictive housing necessarily either do not occur or occur rarely. In the latter instance, the studies typically have limited usefulness because they apply to only one prison or state at one point in time and illuminate only one particular issue. This situation can be remedied in part through federal funding for research. However, the only long-term viable solution for regular monitoring and assessment of the uses, impacts, and cost-efficiency of restrictive housing is to significantly increase the research capacity of states or state correctional systems.

The situation stands out in part because of longstanding calls for greater government accountability and evidence-based policy. Neither can occur without empirical research that continuously monitors and evaluates jail and prison operations. There are examples of states using the results of empirical research to modify their approaches to restrictive housing (Goode, 2012; Agha, 2015; Browne, 2015; Frakes, 2015), and, in general, corrections officials appear to embrace research that assists them in better understanding their facilities and how to improve their operations and effectiveness. These examples and the receptiveness to (useful) research, along with calls for government accountability and evidence-based corrections, lead to the question: Why have states not invested more in the kinds of research and research infrastructure necessary to create and support accountability and evidence-based practice in the use of restrictive housing?

A “Top 10” List of Critical Research Questions That Should Be and Can Be Addressed

Few, if any, of the research gaps and questions discussed in this paper can be justified in an era in which government accountability and evidence-based practice are promoted. Few, too, can be investigated without a substantial infusion of funds to create the research infrastructure necessary for monitoring and evaluating prison system operations. Even so, some research questions can be prioritized on the basis that (1) they involve a critical concern, (2) they can be evaluated, and (3) study results may be actionable in the near term. Any prioritization of research questions necessarily involves subjective judgment. Even so, the importance of these questions is reflected in the broader literature on restrictive housing.

Here, then, are 10 critical research questions that meet the above criteria and that hold considerable potential for improving accountability and creating more effective and efficient prison systems.

- 1. To what extent do states employ effective strategies for managing their prison systems and limiting the use of restrictive housing to situations in which it is most needed?*
- 2. What factors determine which inmates are placed in restrictive housing? To what extent is restrictive housing placement affected by variation in officer-, warden-, or facility-specific use of such housing? To what extent is such variation explained by inmate behavior?*
- 3. What are the most important causes of prison violence and disorder? Compared to these causes, what is the relative contribution of certain inmates to violence and disorder?*
- 4. To what extent do restrictive housing placements result from a propensity among some inmates to act violently or from poor administrative management practices or operations?*
- 5. How effective and cost-efficient is restrictive housing relative to other approaches to managing prisons and inmates?*
- 6. How effective and cost-efficient is restrictive housing relative to other approaches to punishing inmates?*
- 7. What frequency and duration of restrictive housing create the most benefits and harms for inmates? Which aspects of or experiences in restrictive housing contribute to these outcomes?*
- 8. What are the characteristics of inmates who most benefit from restrictive housing? Which inmates are most harmed by it? Why do these differences exist?*
- 9. What are the short-term effects of restrictive housing on inmates while they are incarcerated? What are the longer-term effects during re-entry? What is the cost-efficiency of these effects relative to other prison management strategies or inmate sanctions?*
- 10. To what extent do policymakers, the public, and prison administrators, staff, and officers support the use of restrictive housing? Which factors influence their support?*

Conclusion

Although research on restrictive housing has increased in recent decades, the overarching finding of this paper is that too little credible empirical research exists to state with confidence the need for such housing, its effects on inmates or prison systems, or its cost-efficiency. A balanced evaluation of the impacts of restrictive housing requires carefully examining the need for such housing, its implementation, its effects on inmates and other groups, its effects on the prison system at large, and its cost-efficiency.

Many critical research gaps exist along precisely these dimensions. Indeed, there is little about restrictive housing that has been consistently evaluated or well-evaluated using rigorous research methodologies, such as quasi-experimental designs that identify appropriate comparison groups or conditions. If the gaps remain unaddressed, jail and prison systems risk wasting their resources and missing opportunities to improve inmate, staff, and public safety. If appropriately addressed, restrictive housing policies — and jail and prison management policies, more generally — have the potential to rest on an evidence-based foundation. Doing so would help correctional systems to be more accountable, effective, and efficient.

References

- Adams, K. (1992). Adjusting to prison life. *Crime and Justice*, 16, 275-359.
- Agha, A. (2015). *Partnering with corrections systems to assess segregation/isolation in confinement*. Washington, DC: American Society of Criminology Annual Meeting.
- Amnesty International. (2014). *Entombed: Isolation in the U.S. federal prison system*. London, England: Amnesty International.
- Association of State Correctional Administrators. (2013). *Restrictive housing status policy guidelines*. Hagerstown, MD: Association of State Correctional Administrators.
- Atherton, E. (2001). Incapacitation with a purpose. *Corrections Today* 63(4), 100-103.
- Austin, J., & Irwin, J. (2012). *It's about time: America's imprisonment binge*. (4th ed.) Belmont, CA: Wadsworth.
- Austin, J., Repko, S., Harris, R., McGinnis, K., & Plant, S. (1998). *Evaluation of the Texas Department of Criminal Justice administrative segregation population*. Washington, DC: National Council on Crime and Delinquency.
- Baker, P., & Goode, E. (2015). Critics of solitary confinement are buoyed as Obama embraces their cause. *New York Times*, July 22, p. A16.

- Bales, W. D., & Mears, D. P. (2008). Inmate social ties and the transition to society: Does visitation reduce recidivism? *Journal of Research in Crime and Delinquency*, 45, 287-321.
- Barak-Glantz, I. L. (1983). Who's in the hole? *Criminal Justice Review* 8, 29-37.
- Baumgartel, S., Guilmette, C. Kalb, J., Li, D., Nuni, J., Porter, D., Resnik, J., Camp, C., & Camp, G. 2015. *Time-in-cell: The ASCA-Liman 2014 National Survey of Administrative Segregation in Prison*. New Haven, CT: Yale Law School Liman Program and the Association of State Correctional Administrators.
- Beck, A. J. (2015). *Use of restrictive housing in U.S. prisons and jails, 2011-12*. Washington, DC: Bureau of Justice Statistics.
- Bidna, H. (1975). Effects of increased security on prison violence. *Journal of Criminal Violence*, 3, 33-46.
- Boin, A., & Rattray, W. A. R. (2004). Understanding prison riots: Towards a threshold theory. *Punishment and Society*, 6, 47-65.
- Booth, F. W., Roberts, C. K., & Laye, M. J. (2012). Lack of exercise is a major cause of chronic diseases. *Comprehensive Physiology*, 2, 1143-1211.
- Bottoms, A. E. (1999). Interpersonal violence and social order in prisons. *Crime and Justice*, 26, 205-282.
- Briggs, C. S., Sundt, J. L., & Castellano, T. C. (2003). The effect of supermaximum security prisons on aggregate levels of institutional violence. *Criminology*, 41, 1341-1376.
- Browne, A. (2015). A systems approach to reducing the use of segregation in confinement. Washington, DC: American Society of Criminology Annual Meeting.
- Browne, A., Cambier, A., & Agha, S. (2011). Prisons within prisons: The use of segregation in the United States. *Federal Sentencing Reporter* 24, 46-49.
- Browne, A. Hastings, A., Kall, K., & diZerega, M. (2015). *Keeping vulnerable populations safe under PREA: Alternative strategies to the use of segregation in prisons and jails*. New York, NY: National PREA Resource Center.
- Bruton, J. H. (2004). *The big house: Life inside a supermax security prison*. Stillwater, MN: Voyageur Press.
- Burt, M. (1981). *Measuring prison results: Ways to monitor and evaluate corrections performance*. Washington, DC: National Institute of Justice.

- Butler, H., Griffin, D. O. H., III, & Johnson, W. W. (2012). What makes you the 'worst of the worst'? An examination of state policies defining supermaximum confinement. *Criminal Justice Policy Review* 24, 676-694.
- Butler, H. D., Steiner, B., Makarios, M., & Travis, L. (Forthcoming.) Assessing the effects of exposure to supermax confinement on offender post-release behaviors. *The Prison Journal*.
- Cloud, D. H., Drucker, E., Browne, A., & Parsons, J. (2015). Public health and solitary confinement in the United States. *American Journal of Public Health*, 105, 18-26.
- Cloyes, K. G., Lovell, D., Allen, D. G., & Rhodes, L. A. (2006). Assessment of psychosocial impairment in a supermaximum security unit sample. *Criminal Justice and Behavior*, 33, 760-781.
- Cochran, J. C. (2014). Breaches in the wall: Imprisonment, social support, and recidivism. *Journal of Research in Crime and Delinquency*, 51, 200-228.
- Cochran, J. C. (2012). The ties that bind or the ties that break: Examining the relationships between visitation and prisoner misconduct. *Journal of Criminal Justice*, 40, 433-440.
- Cochran, J. C., & Mears, D. P. (2013). Social isolation and inmate behavior: A conceptual framework for theorizing prison visitation and guiding and assessing research. *Journal of Criminal Justice*, 41, 252-261.
- Collins, W. C. (2004). *Supermax prisons and the Constitution: Liability concerns in the extended control unit*. Washington, DC: National Institute of Corrections.
- Cooke, D. J. (1989). Containing violent prisoners: An analysis of the Barlinnie Special Unit. *British Journal of Criminology*, 29, 129-143.
- Crouch, B. M., & Marquart, J. W. (1989). *An appeal to justice: Litigated reform of Texas prisons*. Austin, TX: University of Texas Press.
- Cullen, F. T., Jonson, C. L., & Stohr, M. K. (Eds.) (2014). *The American prison: Imagining a different future*. Thousand Oaks, CA: Sage.
- DeMaio, J. R. (2001). If you build it, they will come: The threat of overclassification in Wisconsin's supermax prison. *Wisconsin Law Review* 2001, 207-248.
- DiIulio, J. J., Jr. (1987). *Governing prisons*. New York, NY: Free Press.
- Durbin, D. (2013). Durbin statement on Federal Bureau of Prisons assessment of its solitary confinement practices. Washington, DC: United States Senate.

- Durbin, D. (2012). *Reassessing solitary confinement: The human rights, fiscal and public safety consequences*. Opening Statement of Senator Dick Durbin for the hearing before the United States Senate Committee on the Judiciary Subcommittee on the Constitution, Civil Rights and Human Rights, June 19.
- Dye, M. H. (2010). Deprivation, importation, and prison suicide: Combined effects of institutional conditions and inmate composition. *Journal of Criminal Justice*, 38, 796-806.
- Ferdik, F. V., & McKee, K. T. (2015). The relationship between correctional officer safety and wellness and administrative segregation. White paper. Washington, DC: National Institute of Justice.
- Ferranti, S. (2015). The realities of special housing units in the Federal Bureau of Prisons. In S. C. Richards (Ed.), *The Marion experiment: Long-term solitary confinement and the supermax movement* (pp. 35-58). Carbondale, IL: Southern Illinois University Press.
- Frakes, S. (2015). Reforming segregation by redefining prisons. Washington, DC: American Society of Criminology Annual Meeting.
- French, S. A., & Gendreau, P. (2006). Reducing prison misconducts: What works! *Criminal Justice and Behavior* 33, 185-218.
- Frost, N., and Carlos Monteiro, C. (2015). Administrative segregation in U.S. prisons. White paper. Washington, DC: National Institute of Justice.
- Gawande, A. (2009). Hellhole: The United States holds tens of thousands of inmates in long-term solitary confinement. Is this torture? *The New Yorker*, March 30, 36-45.
- Gendreau, P., Goggin, C. E., & Law, M. A. (1997). Predicting prison misconducts. *Criminal Justice and Behavior* 24, 414-431.
- Gendreau, P., & Keyes, D. (2001). Making prisons safer and more humane environments. *Canadian Journal of Criminology* 43, 123-130.
- Gendreau, P., & Labrecque, R. M. (2015). The effects of administrative segregation: A lesson in knowledge cumulation. In J. Wooldredge & P. Smith (Eds.), *Oxford handbook on prisons and imprisonment*. New York, NY: Oxford University Press.
- Glaze, L. E., & Kaeble, D. (2014). *Correctional populations in the United States, 2013*. Washington, DC: Bureau of Justice Statistics.
- Goode, E. (2012). Prisons rethink isolation, saving money, lives and sanity. *The New York Times*, March 11, p. A1.

- Grann, D. (2004). The brand: How the Aryan Brotherhood became the most murderous prison gang in America. *The New Yorker*, February 16, LXXX, 157-171.
- Grassian, S. (1983). Psychopathological effects of solitary confinement. *American Journal of Psychiatry*, 140, 1450-1454.
- Haney, C. (2003). Mental health issues in long-term solitary and 'supermax' confinement. *Crime and Delinquency*, 49, 124-156.
- Haney, C., Weill, J., Bakhshay, S., & Lockett, T. (2015). Examining jail isolation: What we don't know can be profoundly harmful. *The Prison Journal*, 96(1), 126-152. <http://dx.doi.org/10.1177/0032885515605491>.
- Helmus, L. M. (2015). Developing and validating a risk assessment scale to predict inmate placements in administrative segregation in the Correctional Service of Canada. White paper. Washington, DC: National Institute of Justice.
- Henningsen, R. J., Johnson, W. W., & Wells, T. 1999. Supermax prisons: Panacea or desperation? *Corrections Management Quarterly* 3, 53-59.
- Hershberger, G. L. (1998). To the max: Supermax facilities provide prison administrators with more security options. *Corrections Today* 60, 54-57.
- Hunt, G., Riegel, S., Morales, T., & Waldorf, D. (1993). Changes in prison culture: Prison gangs and the case of the 'Pepsi Generation.' *Social Problems* 40, 398-409.
- Irwin, J. (2005). *The warehouse prison: Disposal of the new dangerous class*. Los Angeles, CA: Roxbury.
- Kaba, F., Lewis, A., Glowa-Kollisch, S., Hadler, J., Lee, D., Alper, H., Selling, D., MacDonald, R., Solimo, A., Parsons, A., & Venters, H. (2014). Solitary confinement and risk of self-harm among jail inmates. *American Journal of Public Health*, 104, 442-447.
- Kane, M., Pierce, B., & Haynes, M. (2013). *Restrictive housing FAQ*. Boston, MA: The Crime and Justice Institute.
- Kassel, P. (1998). The gang crackdown in Massachusetts' prisons: Arbitrary and harsh treatment can only make matters worse. *New England Journal on Criminal and Civil Confinement*, 24, 37-63.
- Katel, P. (2012). Solitary confinement: Is long-term isolation of prisoners inhumane? *Congressional Quarterly* 22, 767-788.
- King, K., Steiner, B., & Breach, S. R. (2008). Violence in the supermax: A self-fulfilling prophecy. *The Prison Journal*, 88, 144-168.

- King, R. D. (2007). Imprisonment: Some international comparisons and the need to revisit panopticism. In Y. Jewkes (Ed.), *Handbook of prisons* (pp. 95-102). Portland, OR: Willan Publishing.
- King, R. D. (2005). Effects of supermax custody. In A. Liebling & S. Maruna (Eds.), *The effects of imprisonment* (pp. 118-145). Portland, OR: Willan Publishing.
- King, R. D. (1999). The rise and rise of supermax: An American solution in search of a problem? *Punishment and Society*, 1, 163-186.
- Krisberg, B. (2003). *General corrections review of the California youth authority*. Oakland, CA: National Council on Crime and Delinquency.
- Kupers, T. A. (2008). What to do with the survivors? Coping with the long-term effects of isolated confinement. *Criminal Justice and Behavior* 35, 1005-1016.
- Kupers, T. A., Dronet, T., Winter, M., Austin, J., Kelly, L., Cartier, W., Morris, T. J., Hanlon, S. F., Sparkman, E. L., Kumar, P., Vincent, L. C., Norris, J., Nagel, K., & McBride, J. (2009). Beyond supermax administrative segregation: Mississippi's experience rethinking prison classification and creating alternative mental health programs. *Criminal Justice and Behavior*, 36, 1037-1050.
- Kurki, L., & Morris, N. (2001). Supermax prisons. *Crime and Justice: A Review of Research* 28, 385-424.
- Labrecque, R. M. (2015a). *The effect of solitary confinement on institutional misconduct: A longitudinal evaluation*. Washington, DC: U.S. Department of Justice.
- Labrecque, R. M. (2015b). Who ends up in administrative segregation? A meta-analytic review. White paper. Washington, DC: National Institute of Justice.
- Lanes, E. C. (2011). Are the 'worst of the worst' self-injurious prisoners more likely to end up in long-term maximum-security administrative segregation? *International Journal of Offender Therapy and Comparative Criminology*, 55, 1034-1050.
- Latessa, E. J., Listwan, S. J., & Koetzle, D. (2014). *What works (and doesn't) in reducing recidivism*. Waltham, MA: Anderson Publishing.
- Lawrence, S., & Mears, D. P. (2004). *Benefit-cost analysis of supermax prisons: Critical steps and considerations*. Washington, DC: The Urban Institute.
- Neal, D. (Ed.). (2003). *Supermax prisons: Beyond the rock*. Lanham, MD: American Correctional Association.
- Logan, C. H. (1993). Criminal justice performance measures for prisons. In J. J. DiIulio, Jr., and James Q. Wilson (Eds.), *Performance measures for the criminal justice system* (pp. 15-59). Washington, DC: Bureau of Justice Statistics.

- Lovell, D. (2008). Patterns of disturbed behavior in a supermax population. *Criminal Justice and Behavior*, 35, 985-1004.
- Lovell, D., Cloyes, K., Allen, D., & Rhodes, L. (2000). Who lives in super-maximum custody? *Federal Probation*, 64, 33-38.
- Lovell, D., Johnson, L. C., & Cain, K. C. (2007). Recidivism of supermax prisoners in Washington State. *Crime and Delinquency*, 53, 633-656.
- Martin, R., & Zimmerman, S. (1990). A typology of the causes of prison riots and an analytical extension to the 1986 West Virginia riot. *Justice Quarterly*, 7, 711-737.
- McCorkle, R. C., Miethe, T. D., & Drass, K. A. (1995). The roots of prison violence: A test of the deprivation, management, and not-so-total institution models. *Crime and Delinquency*, 41, 317-331.
- McGinnis, K., Austin, J., Becker, K., Fields, L., Lane, M., Maloney, M., ... Felix, T. (2014). *Federal Bureau of Prisons: Special housing unit review and assessment*. Arlington, VA: CNA Analysis and Solutions.
- Mears, D. P. (2004). Mental health needs and services in the criminal justice system. *Houston Journal of Health Law and Policy*, 4, 255-284.
- Mears, D. P. (2005). A critical look at supermax prisons. *Corrections Compendium* 30, 6-7, 45-49.
- Mears, D. P. (2006). *Evaluating the effectiveness of supermax prisons*. Washington, DC: The Urban Institute.
- Mears, D. P. (2008a). Accountability, efficiency, and effectiveness in corrections: Shining a light on the black box of prison systems. *Criminology and Public Policy*, 7, 143-152.
- Mears, D. P. (2008b). An assessment of supermax prisons using an evaluation research framework. *The Prison Journal*, 88, 43-68.
- Mears, D. P. (2009). Supermax incarceration and recidivism. *Criminology*, 47, 801-836.
- Mears, D. P. (2010). *American criminal justice policy: An evaluation approach to increasing accountability and effectiveness*. New York, NY: Cambridge University Press.
- Mears, D. P. (2013). Supermax prisons: The policy and the evidence. *Criminology and Public Policy* 12, 681-719.
- Mears, D. P., & Bales, W. D. (2010). Supermax housing: Placement, duration, and time to reentry. *Journal of Criminal Justice*, 38, 545-554.

- Mears, D. P., & Castro, J. L. (2006). Wardens' views on the wisdom of supermax prisons. *Crime and Delinquency* 52, 398-431.
- Mears, D. P., & Cochran, J. C. (2012). U.S. prisoner reentry health care policy in international perspective: Service gaps and the moral and public health implications. *The Prison Journal*, 92, 175-202.
- Mears, D. P., & Cochran, J. C. (2015). *Prisoner reentry in the era of mass incarceration*. Thousand Oaks, CA: Sage Publications.
- Mears, D. P., Cochran, J. C., & Cullen, F. T. (2015). Incarceration heterogeneity and its implications for assessing the effectiveness of imprisonment on recidivism. *Criminal Justice Policy Review* 26, 691-712.
- Mears, D. P., Cochran, J. C., Greenman, S. J., Bhati, A. S., & Greenwald, M. A. (2011). Evidence on the effectiveness of juvenile court sanctions. *Journal of Criminal Justice*, 39, 509-520.
- Mears, D. P., Cochran, J. C., Siennick, S. E., & Bales, W. D. (2012). Prison visitation and recidivism. *Justice Quarterly*, 29, 888-918.
- Mears, D. P., Mancini, C., Beaver, K., & Gertz, M. (2013). Housing for the 'worst of the worst' inmates: Public support for supermax prisons. *Crime and Delinquency* 59, 587-615.
- Mears, D. P., & Reisig, M. D. (2006.) The theory and practice of supermax prisons. *Punishment and Society*, 8, 33-57.
- Mears, D. P., & Watson, J. (2006). Towards a fair and balanced assessment of supermax prisons. *Justice Quarterly*, 23, 232-270.
- Morris, R. G. (2015). Exploring the effect of exposure to short-term solitary confinement among violent prison inmates. *Journal of Quantitative Criminology*, 32(1). <http://dx.doi.org/10.1007/s10940-015-9250-0>.
- Morris, R. G., Carriaga, M. L., Diamond, B., Piquero, N. L., & Piquero, A. R. (2012). Does prison strain lead to prison misbehavior? An application of General Strain Theory to inmate misconduct. *Journal of Criminal Justice*, 40, 194-201.
- Motiuk, L. L., & Blanchette, K. (2001). Characteristics of administratively segregated offenders in federal corrections. *Canadian Journal of Criminology*, 43, 131-143.
- Mushlin, M. B. (2012). Unlocking the courthouse door: Removing the barrier of the PLRA's physical injury requirement to permit meaningful judicial oversight of abuses in supermax prisons and isolation units. *Federal Sentencing Reporter*, 24, 268-275.

- Naday, A., Freilich, J. D., & Mellow, J. (2008). The elusive data on supermax confinement. *The Prison Journal*, 88, 69-93.
- National Institute of Corrections. (1997). *Supermax housing: A survey of current practice*. Washington, DC: National Institute of Corrections.
- National Public Radio. (2012). The grim realities of life in supermax prisons. *Talk of the Nation*, hosted by Neal Conan, June 21. Washington, DC: National Public Radio.
- Neal, D. (Ed.). (2003). *Supermax prisons: Beyond the rock*. Lanham, MD: American Correctional Association.
- Obama, B. (2016). Why we must rethink solitary confinement. *The Washington Post*, January 25, p. A15.
- O'Donnell, I. (2014). *Prisoners, solitude, and time*. New York, NY: Oxford University Press.
- O'Keefe, M. L. (2008). Administrative segregation from within: A corrections perspective. *The Prison Journal*, 88, 123-143.
- O'Keefe, M. L., Klebe, K. J., Metzner, J., Dvoskin, J., Fellner, J., & Stucker, A. (2013). A longitudinal study of administrative segregation. *Journal of the American Academy of Psychiatry and the Law*, 41, 49-60.
- O'Keefe, M. L., Klebe, K. J., Stucker, A., Sturm, K., & Leggett, W. (2011). One year longitudinal study of the psychological effects of administrative segregation. White paper. Washington, DC: U.S. Department of Justice.
- Paternoster, R. (2010). How much do we really know about criminal deterrence? *Journal of Criminal Law and Criminology*, 100, 765-824.
- Pizarro, J. M., & Narag, R. E. (2008). Supermax prisons: What we know, what we do not know, and where we are going. *The Prison Journal*, 88, 23-42.
- Pizarro, J. M., & Stenius, V. M. K. (2004). Supermax prisons: Their rise, current practices, and effect on inmates. *The Prison Journal*, 84, 248-264.
- Pizarro, J. M., Zgoba, K. M., & Haugebrook, S. (2014). Supermax and recidivism: An examination of the recidivism covariates among a sample of supermax ex-inmates. *The Prison Journal*, 94, 180-197.
- Preer, R. (2004). The solitary men. *The Boston Globe Magazine*, April 4, pp. 30-37.
- Prins, S. J. (2014). Prevalence of mental illnesses in U.S. state prisons: A systematic review. *Psychiatric Services*, 65, 862-872.

- Ralph, P. H., & Marquart, J. W. (1991). Gang violence in Texas prisons. *The Prison Journal*, 71, 38-49.
- Reisig, M. D. (1998). Rates of disorder in higher-custody state prisons: A comparative analysis of managerial practices. *Crime and Delinquency* 44, 229-244.
- Reiter, K. A. (2012). Parole, snitch, or die: California's supermax prisons and prisoners, 1997-2007. *Punishment and Society* 14, 530-563.
- Rhodes, L. A. (2004). *Total confinement: Madness and reason in the maximum security prison*. Los Angeles, CA: University of California Press.
- Richards, S. C. (Ed.). (2015). *The Marion Experiment: Long-term solitary confinement and the supermax movement*. Carbondale, IL: Southern Illinois University Press.
- Riveland, C. (1999). *Supermax prisons: Overview and general considerations*. Washington, DC: National Institute of Corrections.
- Ross, J. I. (Ed.). (2013). *The globalization of supermax prisons*. New Brunswick, NJ: Rutgers University Press.
- Rossi, P. H., Freeman, H. E., & Lipsey, M. W. (2004). *Evaluation: A systematic approach*. 7th ed. Thousand Oaks, CA: Sage.
- Schlanger, M. (2013). Prison segregation: Symposium introduction and preliminary data on racial disparities. *Michigan Journal of Race and Law*, 18, 1-12.
- Shalev, S. (2009). *Supermax: Controlling risk through solitary confinement*. London, England: Willan Publishing.
- Shames, A., Wilcox, J., & Subramanian, R. (2015). *Solitary confinement: Common misconceptions and emerging safe alternatives*. New York, NY: Vera Institute of Justice.
- Sherman, L. W. (1993). Defiance, deterrence and irrelevance: A theory of the criminal sanction. *Journal of Research in Crime and Delinquency* 30, 445-473.
- Siennick, S. E., Mears, D. P., & Bales, W. D. (2013). Here and gone: Anticipation and separation effects of prison visits on inmate infractions. *Journal of Research in Crime and Delinquency* 50, 417-444.
- Singer, P. (2003). Warden: Inmates volunteer to stay at 'supermax' prison." *Associated Press*, March 3.
- Smith, P. S. (2008). 'Degenerate criminals': Mental health and psychiatric studies of Danish prisoners in solitary confinement, 1870-1920. *Criminal Justice and Behavior*, 35, 1048-1064.

- Smith, P. S. (2006). The effects of solitary confinement on prison inmates: A brief history and review of the literature. *Crime and Justice*, 34, 441-528.
- Sparks, R., Bottoms, A. E., & Hay, W. (1996). *Prisons and the problem of order*. Oxford, England: Oxford University Press.
- Steiner, B., & Beard, J. (2015). The relationship between institutional violence and administrative segregation. White paper. Washington, DC: National Institute of Justice.
- Stickrath, T. J., & Bucholtz, G. A. (2003). Supermax prisons: Why? In D. Neal (Ed.), *Supermax prisons: Beyond the rock* (pp. 1-14). Lanham, MD: American Correctional Association.
- Suedfeld, P. (1974). Solitary confinement in the correctional setting: Goals, problems, and suggestions. *Corrective Social Psychiatry*, 141, 10-20.
- Suedfeld, P., Ramirez, C., Deaton, J., & Baker-Brown, G. (1982). Reactions and attributes of prisoners in solitary confinement. *Criminal Justice and Behavior* 9, 303-340.
- Sundt, J. L., Castellano, T. C., & Briggs, C. S. (2008). The sociopolitical context of prison violence and its control: A case study of supermax and its effect in Illinois. *The Prison Journal*, 88, 94-122.
- Sykes, G. M. (1958). *The society of captives*. Princeton, NJ: Princeton University Press.
- Toch, H. (2003). The contemporary relevance of early experiments with supermax reform. *The Prison Journal*, 83, 221-228.
- U.S. Department of Justice Work Group. (2016). *U.S. Department of Justice report and recommendations concerning the use of restrictive housing*. Washington, DC: U.S. Department of Justice Work Group on Restrictive Housing.
- U.S. Government Accountability Office. (2013). *Improvements needed in Bureau of Prisons' monitoring and evaluation of segregated housing*. Washington, DC: U.S. Government Accountability Office.
- Useem, B., & Kimball, P. (1991). *States of siege*. New York, NY: Oxford University Press.
- Useem, B., & Piehl, A. M. (2008). *Prison state: The challenge of mass incarceration*. New York, NY: Cambridge University Press.
- Valera, P., & Kates-Benman, C. L. (2015). Exploring the use of special housing units by men released from New York correctional facilities: A small mixed-methods study. *American Journal of Men's Health*, March 10. <http://dx.doi.org/10.1177/1557988315569880>.

- Ward, D. A. (1995). A corrections dilemma: How to evaluate super-max regimes. *Corrections Today*, 57, 104-108.
- Ward, D. A., & Werlich, T. G. (2003). Alcatraz and Marion: Evaluating super-maximum custody. *Punishment and Society*, 5, 53-75.
- Wells, T. L., Johnson, W. W., & Henningsen, R. J. (2002). Attitudes of prison wardens toward administrative segregation and supermax prisons. In L. F. Alarid & P. F. Cromwell (Eds.), *Correctional perspectives* (pp. 171-180). Los Angeles, CA: Roxbury.
- Wooldredge, J., & Steiner, B. (2015). A macro-level perspective on prison inmate deviance. *Punishment and Society*, 17, 230-257.

