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**An Assessment of Supermax Prisons
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ABSTRACT

In recent years, states have invested heavily in super-maximum (“supermax”) security prisons, yet critical questions about them remain unaddressed. In this paper, I examine these prisons through an evaluation research framework, focusing on five questions: (1) Are supermaxes needed? (2) Do they rest on sound theory? (3) Are they typically implemented as intended? (4) Do they achieve their intended goals (i.e., impacts)? (5) Are they cost-efficient? This paper argues that investigation of each question reveals substantial research gaps that raise significant questions about whether supermaxes are warranted, effective, or efficient. It then discusses a range of research and policy implications.

KEY WORDS: supermax prison evaluation impacts effectiveness

INTRODUCTION

Research on supermaximum (“supermax”) security prisons—which entail single-cell, 23-hour-per day confinement, and minimal services or visitation—is minimal despite the rapid growth in and costs of such facilities nationally (Wells et al., 2002). Twenty-five years ago, the only supermax facility in the United States was one in Marion, Illinois, operated by the Federal prison system (Kurki and Morris, 2001:385). By 1996, 34 states had one or more supermaxes, holding 19,630 inmates, or roughly 2 percent of all prison inmates (National Institute of Corrections, 1997; King, 1999). As of 2004, 44 states reportedly had supermax prisons, collectively housing approximately 25,000 inmates (Mears, 2006:40). In short, supermax prisons now constitute a common feature of the corrections landscape and yet remain largely unexamined. The limited research to date is remarkable given the substantial costs of these prisons and the fact that they have been lightning rods for controversy, including domestic and international criticisms that they are inhumane and unconstitutional (Miller, 1995; King, 1999; Haney, 2003; Collins, 2004; Sullivan, 2006).

Juxtaposed against this situation stands a large body of commentaries on supermaxes, analyses of their theoretical logic, and qualitative accounts of supermax inmate experiences (e.g., Toch, 2003; Pizarro and Stenius, 2004; Rhodes, 2004). In addition, several recent studies and reviews investigate different aspects of supermax prisons, including their impacts on violence, unintended effects, and cost-benefit analysis issues (e.g., Kurki and Morris, 2001; Briggs et al., 2003; Ward and Werlich, 2003; Mears and Watson, 2006; Pizarro et al., 2006). However, there have been no attempts to place such work squarely within an evaluation research framework. Such a perspective is warranted when examining any social policy of consequence, but is all the more so when the policy requires considerable up-front and ongoing resource investments, risks diverting resources from potentially more effective and cheaper alternatives, and when, as has been the case, policymakers and corrections officials have called for more evidence-based, cost-efficient approaches to managing offenders (Riveland 1999a; Campbell, 2003; Preer, 2004).

Building off of these observations, this paper employs an evaluation research framework to examine supermax prisons. Specifically, it focuses on the five major types of policy evaluation questions (Rossi et al., 2004): (1) Are supermaxes needed? (2) Do they rest on sound theory? (3) Are they typically implemented as intended? (4) Do they achieve their intended goals (i.e., impacts)? (5) Are they cost-efficient? As the paper will argue, based on a review of research that bears on these questions, supermax prisons represent a questionable corrections policy—they constitute an investment in a costly and potentially harmful policy that would appear to have little evidence-based justification or prospects for substantially achieving the goals expected of them, and do so while diverting attention and resources away from the types of strategies that might more effectively and cheaply achieve similar goals. The paper concludes by discussing such policy implications as well as the types of research needed to place the use of supermax prisons on a more defensible foundation.

BACKGROUND

Recent decades have witnessed a “get tough” trend in criminal justice (Garland, 2001). One prominent marker of that trend is the emergence of supermax prisons (Toch, 2001). Such prisons have been described as places suitable for the “worst of the worst” inmates, typically holding them for an indefinite period of time in single-cell confinement for 23 hours each day, and offering little to no privileges, programming, or services (Riveland, 1999b; Stickrath and Bucholtz, 2003). In fact, there is some inconsistency in definitions of supermaxes (King, 1999). Nonetheless, this description largely reflects the one used in a 1996 National Institute of Corrections (1997) survey of state correctional systems and, based on a 2004 national survey, accords with the views of most state prison wardens (Mears and Castro, 2006). Notably, the courts have no role in making such designations or in the concomitant placement of such inmates in supermaxes. Rather, corrections administrators make such assessments and decisions, with the criteria for supermax placement varying among states (Riveland, 1999b). In general, prison conduct serves as a primary criterion, but behavior outside of prison (e.g., belonging to a gang)

can lead to supermax confinement (Toch, 2001; Mears, 2006; Pizarro et al., 2006).

Solitary confinement as a concept and practice has been a central feature of American corrections since the emergence of penitentiaries in the early 1800s. In 1829, for example, Eastern State Penitentiary in Cherry Hill, Pennsylvania, relied on such confinement in the belief that, among other things, silent contemplation would help inmates reform (Morris and Rothman, 1995). Since that time, most prison systems have had special cells or prisons devoted to managing the most serious inmates (Pizarro et al., 2006). As Riveland (1999b:5) has emphasized, however, “seldom have those prisons operated on a total lockdown basis as normal routine. Even prisons designated as maximum security have generally allowed movement, inmate interaction, congregate programs, and work opportunities.”

In the twentieth century, Alcatraz, which opened in 1934 and closed in 1963, stands as the forerunner of today’s supermax prisons and is emblematic of the “concentration” approach to managing troublesome inmates. Subsequently, a “dispersion” approach—in which the most violent and disruptive inmates were distributed to different prisons—was adopted, under the logic that such inmates would have little leverage to create problems if they had few counterparts with whom to join forces (Riveland, 1999b). In 1983, the Federal Marion facility went into permanent lockdown mode after rioting and murders. Thereafter, states began investing in supermax prisons modeled after the Marion reincarnation of the concentration approach to managing difficult inmates (Kurki and Morris, 2001; Ward and Werlich, 2003).

Against this backdrop, two points bear emphasis concerning the recent expansion of supermax prisons nationally. First, one of the primary justifications of such prisons is that they make prison systems more orderly and safe. As will be discussed below, this justification has critical implications for how most appropriately to assess supermaxes. Second, these prisons constitute a considerable investment of scarce corrections resources—they typically are two to three times more costly to build and operate than other types of prisons, due primarily to the heavy reliance on sophisticated technologies, housing only one inmate per cell, and having a higher staff-to-inmate ratio (Lawrence and Mears, 2004). For this reason, as well as the concerns

about their constitutionality and humanity, supermax prisons arguably merit greater scrutiny than less costly correctional policies that raise fewer concerns. They also merit investigation because state governments, as well as correctional systems, have increasingly called for greater accountability and reliance on evidence-based practices (MacKenzie, 1997; Cullen, 2005).

EVALUATION RESEARCH AND SUPERMAX PRISONS

Applying an evaluation research framework to supermax prisons affords the opportunity to provide a systematic assessment of what is known about these prisons. It is not necessary that each of the five major types of evaluations have been conducted to determine if supermax prisons are warranted. However, collectively such evaluations provide a more evidence-based foundation for supporting or opposing such prisons as well as improving their operations. Below, I discuss the state of research as it applies to each of the five major types of evaluations. Table 1 provides a summary of the bottom-line assessment in each case.

Are Supermax Prisons Needed?

What exactly drove states to invest in supermax prisons? Was it, for example, politically expedient or possibly a fad-like investment that could be used to demonstrate the professionalism and sophistication of a given correctional system (King, 1999; Mears, 2006; Mears and Reisig, 2006; Pizarro et al., 2006)? To date, no studies empirically account for the rise of supermaxes (see, however, Henningsen et al., 1999; King, 1999; Riveland, 1999b; Mears and Castro, 2003; Toch, 2003; Ward and Werlich, 2003). It appears likely that a complete explanation would need to reference crime trends and changing social and political conditions, as has been the case with studies of other “get tough” policies (e.g., Beckett, 1997; Caplow and Simon, 1999; Garland, 2001; Irwin, 2005). Regardless, what King (1999:164) observed seven years ago remains largely true today—“We know all too little of the politics of proliferation for supermax [prisons]” (see Kurki and Morris, 2001; Pizarro et al., 2006; Sullivan, 2006).

Of course, one obvious reason that states may have invested in supermax prisons is that there was a perceived need for them. The larger question is whether there was an objective need for

almost all states to invest in them. Put simply, no evidence exists that states undertook any rigorous assessment of need, even though such assessments typically constitute a critical first step before deciding to invest in a policy. As Rossi et al. (2004:102) have emphasized: “Needs assessment is fundamental because a program cannot be effective at ameliorating a social problem if there is not problem to begin with or if the program services do not actually relate to the problem.” Indisputably, prison systems have increased in recent decades (Harrison and Beck, 2005), but such growth is not a priori an indicator of need.

When assessing need, it helps to know the goal of a given policy. In the case of supermax prisons, the overriding goals have been to increase systemwide order, safety, and control (National Institute of Corrections, 1997; Riveland, 1999b; Pizarro and Stenius, 2004). However, other goals—such as improving systemwide inmate behavior, decreasing riots, the influence of gangs, and prison escapes, punishing inmates, reducing recidivism among violent and disruptive inmates, rehabilitating inmates, and deterring crime in society—have also been associated with these prisons (Mears and Castro, 2006; Sullivan, 2006).

In each instance, before investing in supermax prisons, states ideally would have assessed the extent of the particular problems. For example, how much disorder was there throughout the state prison system or how frequently did riots occur? Observe that answering such questions is no small matter. To illustrate, disorder can be defined many different ways, referencing such dimensions as the amount of violence, rule compliance, program participation, or physical conditions and appearances of facilities (Mears and Reisig, 2006). Violence alone can be operationalized in various ways, including, most notably, homicides and assaults. Even in such cases, many variations exist. Assaults may or may not include injury, for example (Briggs et al., 2003). And regardless of the variant used, the reliability of such measures frequently is minimal. As Mears and Reisig (2006:37) have noted, “official records regarding nonlethal forms of inmate violence are sources of information plagued by measurement error” (see, generally, Reisig, 1998; Light, 1990; Logan, 1993; Bottoms, 1999).

Even if the reliability and validity of disorder measures were not an issue, a basic question

would remain. Specifically, what level of disorder (or any other problem for which supermax prisons are deemed to be a solution) is sufficient to establish a “need” for one or more supermaxes? Texas experienced close to fifty homicides in its prison system over a two-year period and supermaxes were built to respond to this situation (Crouch and Marquart, 1989; Mears, 2006). Implicitly, then, the criterion there would appear to be 25 or more homicides annually. But why that threshold? Why not one that is higher or lower? More importantly, what about thresholds for the range of other measures of violence that could be used, such as assaults that result in injuries or inmate compliance with rules or participation in programming?

Notably, states have not systematically documented the goals of their supermax prisons (Mears and Watson, 2006). Thus, by extension, they can not say what precise problems the prisons were designed to alleviate (see, however, Stickrath and Bucholtz, 2003). Indeed, even if we accept order and safety as the primary goals, which accords with the view of the vast majority of state prison wardens nationally (Mears and Castro, 2006), no published accounts exist that establish the precise amount of need in each state prior to, during, and after supermaxes opened their doors. The same can be said for the other problems for which supermax prisons serve as solutions. And yet, without assessing need, there otherwise is little rational basis—other than political expediency (Pizarro et al., 2006)—for investing in a costly correctional policy.

Do Supermax Prisons Rest on Sound Theory?

For any policy or program to be effective, it helps considerably if it rests on a well-supported theory that “explains why [it] does what it does and provides the rationale for expecting that doing so will achieve the desired results” (Rossi et al., 2004:134). By contrast, when policies or programs lack such a foundation, “there is little prospect that [they] will be effective” (p. 135). Certainly, the prevalence of a policy provides no guarantee of a well-developed theoretical logic. For example, drug courts of various types have burgeoned over the past 15 years, yet many of them, including those that have opened their doors in recent years, have not articulated their theoretical underpinnings (Butts and Roman, 2004). The same can be said of supermax prisons.

Indeed, to date, few detailed attempts to explicate the theoretical foundation of these prisons exist, and those that do have focused solely on one goal—increasing systemwide prison order. The notion of increasing order by targeting the most disruptive inmates is an approach generally consonant with the new penology’s emphasis on managing risk (Feeley and Simon, 1992; Pizarro et al., 2006). But that description leaves open the question of whether supermaxes can be expected, on theoretical grounds, to improve systemwide order. Pizarro and Stenius’ (2004) theoretical analyses suggest that they do not and can not. For example, the authors have argued that general deterrence constitutes a weak causal mechanism: “It is unlikely that supermax facilities serve as a [general] deterrent because of the certainty of punishment, [given that] placement in these facilities is relatively rare and often based on administrative decisions using risk factors over which inmates have little control” (p. 258).

Extending Pizarro and Stenius’ (2004) assessment, Mears and Reisig (2006) have noted that other theoretical arguments for supermax prisons improving systemwide order have little merit on logical or empirical grounds. For example, they emphasized that specific deterrence appears to be an unlikely mechanism through which supermaxes produce systemwide order, noting that the supermax inmates, putatively the “worst of the worst,” may be among the least likely to be influenced by severe sanctions. Moreover, unless such inmates contribute to most disorder, any specific deterrent effect, as well as any incapacitative effect (wherein supermax inmates are prevented both from committing disruptive acts and from inciting others to commit such acts), would have a negligible impact on aggregate amounts of disorder. In addition, the assumption that supermaxes “normalize” the general prison system environment (Sheppard et al., 1995; Hershberger, 1998; Kurki and Morris, 2001) appears tenuous given that removing disruptive inmates would not necessarily or even likely free staff time to focus on the remaining inmates or make these inmates more inclined to follow rules or participate in programs (Mears, 2006).

Additional theoretical analyses suggest that supermax prisons may, if anything, increase disorder. Pizarro and Stenius (2004) have argued that disorder may worsen both through “experiential effects,” wherein the failure to follow through with threats to place inmates in

supermax confinement increases misconduct, and through inmate perceptions that such confinement is illegitimate and unfair (p. 259). Similarly, the “rage hypothesis”—largely untested empirically—suggests that supermax inmates, upon release to general prison facilities, will be so angry that they attack staff and other inmates (Haney, 2003; Ward and Werlich, 2003). Consider, for example, the state of mind of an inmate Rhodes (2004:55) interviewed who had been confined in a control unit:

If I’m being good and they don’t give me nothing, I can’t take that kind of rejection . . . I just went off, spitting, urinating, tearing up my cell, the whole nine yards . . . If they feel like I’m gonna be a badass, why not be one? . . . They think they can control me, but I’m gonna be the one in control.

More generally, as Mears and Reisig (2006) have emphasized, supermax prisons do little to address the structural conditions that research has shown contributes to disorder (Adams, 1992; McCorkle et al., 1995; Bottoms, 1999; King, 1999; Austin and Irwin, 2001; Kurki and Morris, 2001; Irwin, 2005). In Sparks et al.’s (1996:313) words, policies like supermax prisons, which target specific types of individuals, cannot “magically . . . unlock the problem of order for a prison system as a whole.” For example, such prisons do not target maladaptive systemwide inmate social norms or the general deprivations that most inmates face (Sykes, 1958); they could be argued to contribute to the problems that arise when inmates perceive prison systems to be operating in an unjust manner (Useem and Kimball, 1991; Irwin, 2005); and they do not in any obvious way contribute to improved managerial efficiency or effectiveness (DiIulio, 1987).

Supermax prisons have been associated with other goals, such as reducing prison escapes and improving public safety, and similar theoretical assessments have yet to be rendered. Some preliminary appraisals suggest that analogous problems exist, however (Mears and Watson, 2006). For example, given that the certainty of placement in a supermax is low (Pizarro and Stenius, 2004), few would-be offenders in the general population can be expected to refrain from criminal activity through a general deterrence process. Also, inmates in supermax confinement receive little to no programming or services over several years and then may be released outright

into society with no supervision. In such cases, individuals might be expected to have higher rates of recidivism than if they had received services (Haney, 2003; King, 2005).

Some might argue that supermax prisons constitute an effective crisis management tool—certainly, that expectation is logical and comports with the approach undertaken at the Marion facility (Ward and Werlich, 2003) and in many states, such as Texas (Crouch and Marquart, 1989), and countries, such as the Netherlands (Boin, 2001). But solutions to crises represent unlikely solutions to non-crisis situations (Mears and Watson, 2006). To illustrate, if an individual comes down with an infection, a doctor might prescribe an antibiotic as a short-term “crisis” management solution. But use of the antibiotic on a regular basis would not be indicated and would not address such factors as exercise, nutrition, and the like, that may contribute to illness. Similarly, supermax facilities may enable prison systems to gain control when riots or extreme amounts of violence or disruptions occur, but that would not mean that they necessarily nor even likely are effective over the long term.

To be clear, policies whose theoretical foundation remains unarticulated may nonetheless have positive impacts, but the likelihood of such impacts declines substantially in such cases (Rossi et al., 2004). Moreover, failure to understand the precise mechanisms through which policies give rise to certain impacts makes it difficult to modify the policy in ways that might increase these impacts (Mears and Reisig, 2006).

Are Supermax Prisons Typically Implemented as Intended?

For a policy to be effective, “it must actually carry out its intended functions in the intended way” (Rossi et al., 2004:170). From an implementation perspective, a central issue affecting the potential effectiveness of supermax prisons is whether the inmates most appropriate for supermax confinement are identified and placed in a supermax. Apart from concerns about effectiveness, failure to adhere to rules and procedures for placement in and operation of supermaxes can violate agency policy and the constitutional rights of inmates (Collins, 2004).

In defining who is appropriate for supermax confinement, we must first specify the goals

associated with supermax facilities. For example, if these facilities are supposed to prevent escapes, then escape-prone inmates must be identified. Similarly, if supermaxes are supposed to decrease systemwide disorder, then the most disruptive inmates must be identified and placed in them. Where states have multiple goals for their supermaxes, diverse criteria must be applied to determine whether supermax placements consist of those most “suited” for such confinement.

In fact, ambiguity about the goals of supermax prisons, as discussed above, has been paralleled by ambiguity about who should and does reside in these prisons (Riveland, 1999b; Mears and Watson, 2006). The most typical reference in the literature is to the idea that supermaxes should and do house the “worst of the worst.” However, as King (1999:164) has emphasized, “it is by no means clear what is meant by expressions such as . . . ‘worst of the worst.’” Indeed, no systematic empirical research describes the profile of inmates in supermax confinement (see, however, Lovell et al., 2000; Irwin, 2005; Cloyes et al., 2006; Mears and Castro, 2006). Kurki and Morris’ (2001:392) observation remains true today—in the absence of empirical research, “it is difficult to be sure who is assigned to supermax prisons, why they go, who gets out, when they get out, and how they get out.”

At a minimum, it appears likely that supermax prisons house many different types of inmates. For example, a national survey of state prison wardens revealed considerable variation in who was considered to be an appropriate target for supermax confinement. A majority agreed or strongly agreed that the following types of inmates should be targeted—inmates who assault staff repeatedly or cause injury, assault other inmates repeatedly or cause injury, instigate other inmates to be violent, or who are prison gang leaders, an escape risk, drug dealers while in prison, or chronic rule-violators (Mears, 2005:45). Wardens also mentioned other types of inmates, including those are gang members, “high profile,” or at risk of being attacked, have been incarcerated for a serious offense or have a serious mental illness, are sexual predators, terrorists, or on death row, or have killed others while in prison or who make or possess weapons (pp. 45-46). Similar views existed among supermax wardens, who presumably have greater knowledge about the types of inmates actually placed in supermax facilities.

Other studies have documented that a diverse range of inmates reside in supermaxes. For example, a study conducted by Lovell et al. (2000) identified seven types of inmates—including socially inept inmates who were unable to adjust to life in traditional prisons and inmates who actively sought supermax confinement for the greater protection it afforded—who had been placed in Washington’s supermax facility (see also Cloyes et al., 2006). Such variation in the types of inmates placed in supermaxes does not mean that implementation problems necessarily exist. However, if this spectrum of inmates truly merits supermax confinement, substantial questions arise about the criteria for placement given that most prison systems have many more inmates who fit these descriptions than can be accommodated by existing supermax bed space.

Juxtaposed against the “black box” of supermax placement decisions, and the criteria used for such placement, stand many accounts of mentally ill inmates residing in supermaxes, often in disproportionate numbers relative to traditional prisons (Kurki and Morris, 2001; Haney, 2003). Of course, it may be that mentally ill inmates contribute disproportionately to a variety of problems, including the maintenance of systemwide order, and so targeting them for placement might conceivably contribute to improved management of prison systems. However, research does not support that assumption (Mears, 2006). More to the point, state policies and court decisions, such as the 1995 *Madrid v. Gomez* case, which dealt with Pelican Bay (Collins, 2004:9), frequently prohibit the placement of mentally ill inmates in supermax confinement. By design, then, supermax facilities typically should not house mentally ill inmates. The issue is complicated by the fact that supermax prisons may cause mental illness (Haney, 2003; Cloyes et al., 2006). In this case, and in so far as mentally ill inmates contribute to prison disorder, supermaxes, when they release such inmates back into traditional prison facilities, actually may contribute to a central problem that they are designed to alleviate.

The placement of mentally ill inmates in supermaxes illustrates the more general issue of improper placement of inmates into these facilities. Riveland (1999b) and Lovell et al. (2000) have emphasized that some inmates in supermax facilities arrive there for rule violations rather than commission of violent or highly disruptive acts (see also Kurki and Morris, 2001). To the

extent the assessment is true, it would reflect poor implementation of the underlying idea of supermaxes, especially as concerns the focus on systemwide order and violence. If other goals are considered, improper placement of inmates would almost certainly appear likely to occur with regularity, given that few states systematically rely on well-validated instruments for classifying high-risk inmates (Bottoms, 1999; Austin and McGinnis, 2004). In addition, placing inmates not obviously suitable for extended solitary confinement in supermaxes may undermine the effectiveness of these prisons by supporting general inmate population perceptions that such placements are abusive and unfair (Pizarro and Stenius, 2004).

Another prominent implementation issue—related to that of identifying appropriate inmates for supermax confinement—concerns consistent adherence to the rules and procedures (where such exist) for placement and release. Once, again, theory considerations inescapably arise. For example, how long should an inmate reside in a supermax to achieve the goal of increased systemwide order? If the belief is that general deterrence creates such order, we might answer the question differently than if the belief is that specific deterrence creates order. Regardless, states have supermax prisons and therefore, if only implicitly, must have ideas about how long inmates should be in supermax confinement to achieve a given goal. And since each state's goals for its supermaxes varies, states must develop research protocols for assessing "how much is enough." To date, however, there have been no published accounts of such efforts and no evidence exists that states have undertaken them. Until these issues are clarified, the standard for assessing how well supermaxes are implemented will remain ambiguous.

Finally, as noted at the outset, implementation issues involve considerations of compliance with the law and the U.S. Constitution. Here, the "theory" of supermax operations—and, thus, criteria for evaluating the extent to which practice accords with theory—lies less with explicit blueprints associated with supermaxes than with state policies and court decisions that provide guidance about what is permissible. Court decisions alone address a range of dimensions, including: religious practices; medical care and definitions of "serious medical care" and "deliberate indifference"; screening, monitoring, and care of the mentally ill; provision of

services to address basic human needs (e.g., safety, food, clothing, shelter, sanitation, exercise); use of force; due process and supermax placement; and access to the courts (Collins, 2004).

Notably, no systematic empirical evidence exists about the extent to which supermax operations consistently accord with state policies, court decisions, or national or international standards of humane treatment of inmates (Haney, 2003; King, 2005). Indeed, what occurs within supermax facilities—how they are operated—remains largely a “black box” (Riveland, 1999b; Wells et al., 2002), though evidence clearly indicates that a non-trivial number of inappropriate placements (e.g., the mentally ill, nuisance inmates) are placed in them and that abuses occur (Austin et al., 1998; DeMaio, 2001; Kurki and Morris, 2001; Rhodes, 2004; Cloyes et al., 2006; Mears and Watson, 2006; Sullivan, 2006). Similarly, limited information exists about staff-to-inmate ratios, staff quality, or employment conditions (Toch, 2001; King, 2005; Sullivan, 2006), though recently considerable attention has focused on what has been perceived as limited staffing, allegedly resulting in increased violence, at the Federal supermax facility in Florence, Colorado (Foster, 2006; Finley, 2007).

Do Supermax Prisons Achieve Their Intended Goals?

Many goals have been associated with supermax prisons and so any appropriate assessment of impact must make reference to all of them, or to some weighted combination of them, depending on the goals each state associates with its supermax housing (Mears and Watson, 2006). For example, if a particular state sets reduced escapes as a goal of such housing, then an evaluation should focus on whether escapes have been reduced or are lower than they otherwise would be. If, however, another state does not include escapes as one of the goals associated with its supermax housing, an evaluation should not focus on escapes. This situation—in which many different goals can be articulated for supermaxes and in which states vary in the emphasis they place on these goals—creates a fundamental barrier to any attempt to provide a simple assessment of supermax effectiveness.

Even if one were to ignore the problem of diverse and differently weighted goals, the fact

remains that supermax prisons have not been subject to rigorous impact evaluations. Counterfactual logic is the hallmark of impact evaluations. As Rossi et al. (2004:235) have observed, “the critical issue in impact evaluation . . . is whether a program produces desired effects over and above what would have occurred without the intervention or, in some cases, with an alternative intervention” (emphasis added). With respect to supermaxes, the question is whether these prisons produce more order, safety, and control (ignoring other possible goals) than would have occurred in their absence or in lieu of an alternative intervention. With the exception of the Briggs et al. (2003) study, analyses of supermaxes have not relied on a counterfactual research design. Not surprisingly, then, various reviews all arrive at the same assessment—namely, no one knows if supermax prisons effectively achieve any of their stated goals, including those, such as order, safety, and control, presumed to be the most important (Kurki and Morris, 2001; Briggs et al., 2003; Ward and Werlich, 2003; Lovell and Johnson, 2004; Rhodes, 2004; King, 2005; Pizarro et al., 2006).

The Briggs et al. (2003) study stands out because it employed a potentially quite powerful type of research design, an interrupted time series analysis, useful for assessing the impact of social policies. The authors focused on four states, three of which had supermaxes (Arizona, Illinois, and Minnesota) and one that did not (Utah). They analyzed institutional data on inmate-on-inmate and inmate-on-staff assaults and found little evidence that violence abated after the opening of supermax facilities, though in one state, Illinois, there appeared to be a reduction in assaults on staff (Briggs et al., 2003:1367). Notably, in one state, Arizona, there was evidence of a temporary increase in assaults on staff (p. 1365). The expected finding in Illinois suggested support for supermaxes, but, as the authors emphasized, the finding actually raised more questions than it answered. Why, for example, would a supermax reduce inmate-on-staff assaults but not inmate-on-inmate assaults (Briggs et al., 2003:1368)? More critical, though, is the fact that the research design assumes that Utah, the reference for making comparisons, is comparable along dimensions that might influence systemwide violence (e.g., amount of prison violence, causes of such violence, management strategies and approaches, staffing, programs and

services). In reality, as the authors stressed (p. 1352), variations likely exist that threaten the study's external validity. Even so, their study constitutes perhaps the most rigorous evaluation to date on the impact of supermaxes, and notably the results are at best mixed. Just as notably, the study does not address the full range of supermax goals.

Several other studies bear mention because they either attempt to measure the impact of supermax prisons or illustrate the problems associated with such attempts. Bidna's (1975) analysis of California prisons showed that after the state tightened security at its then twelve adult prisons and implemented lockdowns, which entail supermax-like conditions, at four maximum security facilities, inmate stabbings declined. (Notably, violence in the lockdown facilities increased.) Similarly, a study of Texas prisons suggested that systemwide violence, measured by numbers of homicides, in the mid-1980s declined after the opening of supermax-like facilities (Crouch and Marquart, 1989).

These studies are notable in that they provide suggestive evidence that supermax facilities may help promote systemwide safety. However, the Bidna (1975) study echoes that of Briggs et al. (2003) in illustrating that supermaxes may actually increase violence, if not systemwide then in the supermaxes themselves. In addition, the Crouch and Marquart (1989) study highlights a problem confronting Briggs et al. (2003) and others—namely, the inability to control for systemwide changes occurring when supermaxes were introduced (e.g., new leadership, management, and staffing) that might have caused observed reductions in murders (see Bottoms, 1999; Pizarro et al., 2006). Here, again, the studies rely on measures of the most extreme type of violence and do not speak to the range of other acts that are part of safety but also those that reflect order, control, and the other goals associated with supermax facilities. As but one example, corrections officials frequently argue for supermaxes as a means by which to control gangs, yet many accounts suggest that gang influence both in supermax and general population prisons continues largely unabated (Grann, 2004; Montgomery, 2005; Mears, 2006).

A different type of study was conducted by Ward and Werlich (2003), who examined the Marion and Alcatraz federal prisons. The authors did not directly examine systemwide levels of

violence but rather inferred systemwide effects from information about inmates released from and then returned to these supermax facilities. Their assessment was that released inmates returned at relatively low rates—3.1 percent of Alcatraz inmates returned for disciplinary reasons and 16 percent of Marion inmates returned for some reason (Ward and Werlich, 2003:62-63). This study, too, constitutes an important advance over the limited body of empirical research on supermax prisons. Unfortunately, it is difficult to know how to know what a “low” rate is, especially in the absence of a basis for comparison, as the authors themselves noted (p. 69). In addition, the measure itself may not provide an accurate portrait of the violence or disruption such inmates might contribute in general population prisons, given that only the most extreme acts would likely result in a return to supermax confinement.

Another indirect assessment of the impact of supermax prisons comes from a national survey of state prison wardens, who were asked whether supermax prisons are effective. Notably, 90 percent or more of the wardens—presumably the very people best positioned to comment on the impacts of these prisons on management of general population facilities—thought that supermaxes improved systemwide order, safety, and control (Mears, 2005:45). Even those who headed non-supermax facilities, and who therefore might be less prone to want supermaxes to be effective, expressed highly favorable views about the impacts of these prisons. Of course, the wardens’ views could be wrong, but the overwhelmingly positive assessment raises, at a minimum, the question of whether well-designed research studies might support their views.

Juxtaposed against the dearth of rigorous impact evaluations stand a plethora of studies that point to many potential unintended effects of supermax prisons, effects that any balanced assessment would need, as Mears and Watson (2006) recently have argued, to take into account. Such prisons might contribute to greater disorder and violence (Bottoms, 1999), increase or aggravate mental illness among supermax inmates (Haney, 2003; Rhodes, 2004; King, 2005; Cloyes et al., 2006), and decrease the likelihood of positive post-release outcomes, including increasing rather than decreasing offending among supermax and non-supermax inmates (Mears and Watson, 2006; Pizarro et al., 2006; Sullivan, 2006). Indeed, motivated by the question of

whether supermax confinement might worsen post-release outcomes, one recent study found that violent offending indeed was worse among supermax inmates as compared with a matched comparison group of inmates from general population facilities (Lovell and Johnson, 2004). Why supermax prisons might negatively affect prison system and post-release outcomes remains uncertain. Supermax prisons might, for example, be viewed by inmates as unjustified, excessive, and illegitimate, and in turn lead to less inmate compliance and greater violence systemwide. They might, as discussed already, enrage inmates held in them, or contribute to mental illness by imposing extreme solitude and limiting the type and amount of care that can be provided. In addition, failure to receive treatment, vocational, or reentry services might disadvantage supermax inmates upon release relative to inmates who receive such programming. Supermaxes also they might divert resources away from other, potentially more effective inmate management and prisoner reentry strategies. These and other possibilities exist, but have yet to be subjected to empirical study.

The logic of impact evaluations requires a comparison, whether that be the absence of a policy or of other potentially effective interventions. As the discussion to this point has highlighted, the central flaw with almost every extant study of supermax prisons is that we do not know what would have happened in the absence of such prisons. But an equally critical problem is that no studies exist comparing the effectiveness of supermaxes to alternative approaches for achieving such goals as order and safety. Yet, as Briggs et al. (2003:1371) have emphasized, “viable alternatives to supermax do exist. Moreover, many of these approaches to social control do not have the dubious moral qualities, legal uncertainties, and costs that are associated with supermaxes.” To illustrate, in a national survey of state prison wardens, Mears and Castro (2006) found that over half of the wardens felt that staff training, segregation cells in each prison (rather than segregation cells concentrated in one facility), and rehabilitative services would be effective alternatives to supermaxes, and roughly one-third felt that “transfer-and-trade” and dispersion policies would be effective (p. 419). A recent meta-analysis by Gendreau and Keyes (2001) echoes these views, finding that a diverse range of treatment and behavioral

programs as well as management styles can improve prison order and safety (see also French and Gendreau, 2006). More generally, studies suggest that changing the environment in prisons—how they look, how they are operated, the programs and services they offer—can have potentially greater long-term impacts on inmate behavior than lockdowns (Sparks et al., 1996; Bottoms, 1999; Irwin, 2005; Mears and Watson, 2006). This body of work suggests, among other things, that lockdown approaches, the essence of a supermax, arguably are best-suited as short-term strategies for managing crises, not long-term solutions to prison order.

Are Supermax Prisons Cost-Efficient?

Establishing that a policy is needed, developing its theoretical logic, implementing it well, and showing that it indeed achieves its desired goals are all central to any evidence-based policy endeavor. Should these bars be cleared, one final question remains—is the policy cost-efficient? Efficiency assessments typically involve cost-effectiveness analyses or cost-benefit analyses, both of which “provide a frame of reference for relating costs to program results” (Rossi et al., 2004:332). Whereas cost-effectiveness analyses produce estimates of the dollars required to achieve a given outcome, cost-benefit analyses produce estimates of the dollars of benefit achieved for a given amount of dollars expended. By monetizing outcomes, cost-benefit analyses enable policymakers to compare the relative benefits of investing in social policies that target different social goals, such as one aimed at reducing teen pregnancy and another aimed at reducing crime. Cost-effectiveness analyses allow for comparisons as well, but only when different policies strive to achieve the same goals or outcomes.

Cost-efficiency represents an obvious concern for policymakers because it addresses the question of whether a policy provides a sufficient return—enough “bang for the buck”—for the investment. Notably, however, few crime policies are ever subject to cost-efficiency analyses (Cohen, 2000). As applied to supermax prisons, several questions arise. For example, is a supermax likely to produce the greatest gain in, say, systemwide order and safety, for the required investment as compared with other policy approaches? That question assumes our

perspective is that of corrections officials. If our interest lies with whether supermaxes cost-efficiently contribute to public safety, our perspective becomes that of society at large. In the latter instance, a cost-effectiveness analysis might be appropriate—for example, we might compare the costs of several policies and the extent to which each produces improvements in public safety. However, if we seek to determine whether society benefits more from a different social policy aimed at a different goal, a cost-benefit analysis would be indicated. Such an analysis would allow us to determine if the funds expended on a supermax produce benefits (expressed in dollars) that exceed the benefits (also expressed in dollars) of this other policy.

As these examples indicate, for a cost-efficiency analysis to be useful, many critical questions must be addressed. Recently, Lawrence and Mears (2004) identified some of the specific ones that arise when the focus is on supermax prisons. First, what exactly is the question to be addressed? To build a supermax at all? To build a supermax instead of funding another initiative aimed at the same goals? To build a supermax or fund another social policy with different goals? In each instance, the focus of a cost-efficiency analysis would differ substantially and, in turn, yield different results. Here, it bears emphasis that in many instances, the proper comparison in a cost-efficiency analysis of supermaxes likely is to policies aimed at achieving similar goals, not to other prisons. Put differently, it is not the case that in states where supermaxes now exist some kind of prison would have been built anyway; rather, correctional systems sought an approach that might influence systemwide outcomes as well as public safety (Mears and Watson, 2006; Pizarro et al. 2006).

Second, and related to the first question, what is the perspective of analysis—that of corrections officials, local communities, or society? In each instance, the goals and outcomes relevant to the analysis may vary, in turn influencing the results. To illustrate, a supermax might be cost-efficient for a correctional system but not for society. Such a situation might arise if supermaxes improve systemwide prison order and safety but do not influence the recidivism of supermax inmates or do not serve as a general deterrent to would-be offenders in society.

Third, what specific goals and attendant outcome measures should be included? If, for

example, we adopt the perspective of correctional systems, do we include systemwide order and safety only, or do we include other outcomes, such as reduced prison escapes and gang influence or increased rehabilitation of supermax and/or non-supermax inmates? Any assessment should include measures of unintended effects as well, especially those, such as increased mental illness among supermax inmates, that may potentially offset any putative benefits. The challenge in each instance lies not only in identifying benefits, as well as costs, that should be included, but then measuring each. The axiom “garbage in, garbage out” applies here no less than in other spheres of social life. That is, no matter how well-done or complex a cost-efficiency analysis, if key impacts are unmeasured or improperly measured, any results will be of questionable use. It bears recalling that there currently exist no rigorous impact evaluations that demonstrate whether supermax prisons achieve any of the range of goals commonly associated with them. At the same time, considerable evidence suggests that supermaxes create many unintended effects, some positive and some negative, that would directly influence a cost-efficiency assessment.

Fourth, what monetary values should be assigned to each cost and each benefit? Here, again, critical challenges arise. For example, what values do we assign to each averted prison homicide, assault, or infraction, respectively? Similarly, what value do we assign to an increase in inmate mental illness or a decrease in officer or staff satisfaction? In these instances, especially where no market-based source of valuation exists, reasonable people may disagree about whether any defensible basis exists for assigning specific monetary values. Ultimately, then, uncertainty attends to cost-efficiency analyses of supermaxes because of the diversity or relevant costs and benefits and the intrinsic difficulty of assigning monetary values to each.

Fifth, how much uncertainty should be attributed to various costs and benefits? Given that uncertainty will arise, it is important to quantify upper- and lower-bound values associated with particular costs and benefits to examine how much the overall results change under varying assumptions. This process, termed sensitivity analysis, allows policymakers and researchers to assess if a particular policy, such as a supermax, appears to be a reasonable investment or if its benefits appear to be highly contingent on questionable assumptions. As Lawrence and Mears

(2004) have shown, changing the parameters or values of even a small set of costs or benefits, or using different “discount rates” to take account of the fact that the value of money changes over time, can substantially influence whether a supermax is found to be cost-efficient.

Juxtaposed against these challenges lies the fact that to date no published cost-efficiency analyses of supermaxes exist. Moreover, even if one or more did exist, there would remain the question of whether the findings could be generalized to another state. For example, as King (1999) has emphasized, what a supermax “is” in terms of design, operations, and costs can vary substantially across states. Thus, a cost-efficiency analysis in one state might well not generalize to other states that have or are contemplating building supermax prisons.

Insert Table 1 about here

CONCLUSION AND IMPLICATIONS

Supermax prisons have emerged as one of the most symbolic and costly “get tough” criminal justice policies in the past twenty-five years. Despite their widespread adoption nationwide, they rest on little to no theoretical or empirical foundation. Indeed, when viewed through the prism of the five main types of research questions typically posed by evaluators (Rossi et al., 2004), the picture looks more bleak. Specifically, there is: (1) minimal indication that supermax prisons were needed as long-term solutions to any of a range of problems (e.g., order, safety, escapes, public safety); (2) no strong or consistent theoretical foundation for anticipating that they would exert any substantial effect on a range of outcomes, and, to the contrary, strong theoretical grounds to anticipate a worsening of these outcomes; (3) minimal documentation of their implementation, including the procedures, and adherence to these procedures, for admitting and releasing inmates, monitoring of inmate behavior, or compliance with state and federal laws as well as constitutional requirements, juxtaposed against accounts showing that mentally ill and other inmates inappropriate for extended solitary confinement reside in supermaxes; (4) minimal evidence of any positive impact on any of a range of outcomes, with considerable evidence of harmful unintended effects; and (5) no evidence that they are cost-efficient.

This situation notwithstanding, supermaxes have been built and will likely remain a central feature of American corrections in the coming decades. For this reason, research is needed that can help improve the operations and potential impacts of these prisons and give officials the evidence they need to make informed decisions about continuing to invest in them. At the same time, the literature points to a series of policy implications that may improve supermaxes. Below, I detail some essential directions in research and policy suggested by the evaluation framework used in this paper, ones that arguably hold the greatest promise for informing debates about supermaxes and guiding policymaker decisions concerning their use and implementation.

Theory and Research Implications

First, as states continue to invest in new supermaxes, research is called for that both defines and measures need. When, for example, is there sufficient disorder or violence to require or be affected by a supermax? Just as important, when certain thresholds of need, however operationalized, are exceeded, can they be linked to causal factors that supermaxes putatively address? If, for example, violence in a certain prison system is primarily due to insufficient staffing or training, then supermax prisons likely are not needed. Of course, the ability to monitor need, such as escalating violence, also would create the ability to assess whether a given intervention, such as a supermax, affected that need.

Second, greater attention should be given to developing and testing the theory and design of supermaxes. Several accounts raise substantial questions about the theoretical foundation of these prisons as they relate to the goal of achieving greater systemwide prison order and safety (Mears and Reisig, 2006; Pizarro et al., 2006). For example, are specific or general deterrent, incapacitation, or normalization effects reasonable to expect in achieving these goals? Is it reasonable to anticipate rehabilitative influences on supermax inmates that reduces their recidivism upon release? How exactly, apart from putatively incapacitating gang leaders, can supermax prisons reduce systemwide gang activity? More generally, what are the diverse mechanisms through which supermaxes might achieve each of their stated goals, and how likely

are such mechanisms to operate as expected?

Third, studies should investigate the extent to which supermaxes operate as envisioned and in a way that accords with theory. For example, are the rules established for supermax placement and release followed, are services, to the extent possible, provided, and are abuses documented and addressed when they occur? And are the rules themselves consistent with theoretical expectations? The first question speaks both to issues of fairness and to consistency of implementation. The second speaks more directly to theory—if, for example, a supermax is argued to reduce the influence of disruptive inmates but the rules stipulate that only inmates who themselves commit violent acts can be placed in supermax confinement, then the rules undermine, at least in part, the theoretical logic. To illustrate, in some states, inmates who incite others to commit disorderly or violent acts cannot be placed in a supermax; rather, they must themselves commit such acts for such placement to occur (Mears and Watson, 2006).

Fourth, a range of impact evaluations should be undertaken that assess the extent to which supermaxes achieve the various goals associated with them and the types and amounts of unintended harmful impacts. Clearly, experimental designs do not appear to be a viable option, but different quasi-experimental designs are, as research by Briggs et al. (2003) attests. Even weak research designs would constitute an advance over a situation in which minimal evidence exists. For example, surveys of inmates and staff in general population prisons would provide an opportunity to investigate their views about the influence of supermaxes. Although such studies have their weaknesses and would be difficult to undertake (Ward, 1995), they can be done (see, e.g., Mears and Castro, 2006). Similarly, interviews and focus groups with supermax and non-supermax inmates and staff would provide opportunities to identify unintended impacts that merit policy attention (Mears and Watson, 2006). Such an approach would also be useful in exploring whether supermaxes exert a greater influence on sub-groups of inmates (Haney, 2003; Cloyes et al., 2006) or on behavior in certain types of facilities.

Finally, and echoing calls from other researchers, studies should investigate whether supermax prisons are, or are likely to be, cost-effective or cost-beneficial. Per Riveland (1999b),

Lawrence and Mears (2004), and Pizarro and Stenius (2004), there have been no documented cost-effectiveness or cost-benefit analyses of supermax prisons. It thus remains unknown whether, even if supermax prisons achieve some goals, their effectiveness is sufficient to offset their costs or whether, by extension, other strategies might achieve comparable gains at less cost.

Policy Implications

Given that most states now have supermax prisons, short-term policy implications should be emphasized. First, states should identify and quantify the needs that their existing or proposed supermaxes are supposed to achieve, if only to clarify what types of inmates should be housed in such facilities. These measures can also be used, eventually, to assess impact.

Second, at the same time, states should detail explicitly the goals of their supermaxes. It is these goals that determine the types of inmates most suitable for supermax confinement and that also determine what types of prison system needs should be monitored. The theory of supermaxes should be explicitly detailed as well to allow for better assessment of whether supermax implementation accords with the logic on which they are grounded. This step in turn can allow officials to identify ways in which supermax operations might be modified to yield greater returns. For example, if, indeed, rehabilitation is one goal of supermax confinement, then clearly some type of programming would need to be provided. In a similar vein, and as Riveland (1999b:22) has emphasized, policymakers can call for the development of “professional standards specific to extended control facilities [i.e., supermax prisons] that provide a template for agencies to follow in the areas of policies and procedures, training, staffing, and program and service provision” (see also Neal, 2003; Bruton, 2004).

Third, states should improve the classification procedures they use for admitting and releasing inmates from supermax facilities (Austin and McGinnis, 2004). Here, again, any such effort should be directly tied to documenting the need for and goals of supermax prisons. In addition, states should develop databases and systems of monitoring that enable them to document adherence to supermax rules and policies, provision of any services, treatment, or

programming, as well as descriptive information about inmate confinement histories and their behavior upon release. From a policy perspective, these steps should ensure that the “right” inmates get placed into supermaxes and problems can be easily identified and rectified. At the same time, such monitoring can help to identify and avoid harmful unintended impacts.

Fourth, policymakers and corrections officials should support efforts to evaluate the impacts of proposed or existing supermax prisons. Without such support, researchers face sufficiently daunting barriers to studying supermaxes that few advances will be made (Ward, 1995).

Fifth, in a similar vein, policymakers should promote efforts to assess the cost-efficiency of supermaxes and alternatives that might achieve comparable results at lower costs. One of the more striking findings in recent years is the fact that, as discussed earlier, a majority of state prison wardens believe there are many effective alternatives to supermaxes (Mears and Castro, 2006). That finding contradicts those who have argued that supermaxes were an option of last resort. More importantly, though, it buttresses the findings of research that points to cheaper, potentially more effective approaches—such as staff training and reliance on behavioral, educational, and vocational programs—to prison management (Bottoms, 1999; Gendreau and Keyes, 2001; Van Voorhis et al., 2004; French and Gendreau, 2006).

REFERENCES

- Adams, Kenneth. 1992. "Adjusting to Prison Life." Pp. 275-359 in Crime and Justice: A Review of Research, vol. 16, edited by Michael H. Tonry. Chicago, IL: University of Chicago Press.
- Austin, James, and John Irwin. 2001. It's About Time: America's Imprisonment Binge. Belmont, CA: Wadsworth.
- Austin, James, and Kenneth McGinnis. 2004. Classification of High-Risk and Special Management Prisoners: A National Assessment of Current Practices. Washington, D.C.: National Institute of Corrections.
- Austin, James, Stan Repko, Robert Harris, Ken McGinnis, and Susan Plant. 1998. Evaluation of the Texas Department of Criminal Justice Administrative Segregation Population. Washington, D.C.: National Council on Crime and Delinquency.
- Beckett, Katherine. 1997. Making Crime Pay: Law and Order in Contemporary American Politics. New York: Oxford University Press.
- Bidna, Howard. 1975. "Effects of Increased Security on Prison Violence." Journal of Criminal Violence 3:33-46.
- Boin, Arjen. 2001. "Securing Safety in the Dutch Prison System: Pros and Cons of a Supermax." The Howard Journal 40:335-346.
- Bottoms, Anthony E. 1999. "Interpersonal Violence and Social Order in Prisons." Pp. 205-282 in Prisons, edited by Michael H. Tonry and Joan Petersilia. Chicago: University of Chicago Press.
- Briggs, Chad S., Jody L. Sundt, and Thomas C. Castellano. 2003. "The Effect of Supermaximum Security Prisons on Aggregate Levels of Institutional Violence." Criminology 41:1341-1376.
- Bruton, James H. 2004. The Big House: Life Inside a Supermax Security Prison. Stillwater, MN: Voyageur Press.

- Butts, Jeffrey A., and John Roman, eds. 2004. Juvenile Drug Courts and Teen Substance Abuse. Washington, D.C.: Urban Institute Press.
- Campbell, Robin. 2003. Dollars and Sentences: Legislator' Views on Prisons, Punishment, and the Budget Crisis. New York: Vera Institute of Justice.
- Caplow, Theodore, and Jonathan Simon. 1999. "Understanding Prison Policy and Population Trends." Pp. 63-120 in Prisons, edited by Michael H. Tonry and Joan Petersilia. Chicago, IL: University of Chicago Press.
- Cloyes, Kristin G., David Lovell, David G. Allen, and Lorna A. Rhodes. 2006. "Assessment of Psychosocial Impairment in a Supermaximum Security Unit Sample." Criminal Justice and Behavior 33:760-781.
- Cohen, Mark A. 2000. "Measuring the Costs and Benefits of Crime and Justice." Pp. 263-315 in Measurement and Analysis of Crime and Justice, edited by David Duffee. Washington, D.C.: National Institute of Justice.
- Collins, William C. 2004. Supermax Prisons and the Constitution: Liability Concerns in the Extended Control Unit. Washington, D.C.: National Institute of Corrections.
- Crouch, Ben M., and James W. Marquart. 1989. An Appeal to Justice: Litigated Reform of Texas Prisons. Austin: University of Texas Press.
- Cullen, Francis T. 2005. "The Twelve People Who Saved Rehabilitation: How the Science of Criminology Made a Difference." Criminology 43:1-42.
- DeMaio, Jerry 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, John J., Jr. 1987. Governing Prisons. New York: Free Press.
- Feeley, Malcolm M., and Jonathan Simon. 1992. "The New Penology: Notes on the Emerging Strategy of Corrections and Its Implication." Criminology 30:449-474.
- Finley, Bruce. 2007. "AG Rates Supermax Up to Par: After Tour, Gonzales 'Comfortable' with Prison Setup—His Assessment of the Ultra-high-security Facility in Florence Has Guards Bristling and Union Leaders Citing Recent Outbreaks of Violence and Increased Threats to

- Kill Staff.” The Denver Post, February 22, p. B1.
- Foster, Dick. 2006. “Officials Request Funds for Supermax Security.” Rocky Mountain News, October 31, p. 14A.
- French, Sheila A., and Paul Gendreau. 2006. “Reducing Prison Misconducts: What Works!” Criminal Justice and Behavior 33:185-218.
- Garland, David. 2001. The Culture of Control: Crime and Social Order in Contemporary Society. Chicago: University of Chicago Press.
- Gendreau, Paul, and David Keyes. 2001. “Making Prisons Safer and More Humane Environments.” Canadian Journal of Criminology 43:123-130.
- Grann, David. 2004. “The Brand: How the Aryan brotherhood became the most murderous prison gang in America.” The New Yorker, February 16, LXXX:157-171.
- Haney, Craig. 2003. “Mental Health Issues in Long-Term Solitary and ‘Supermax’ Confinement.” Crime and Delinquency 49:124-156.
- Harrison, Paige M., and Allen J. Beck. 2005. Prison and Jail Inmates at Midyear 2004. Washington, D.C.: Bureau of Justice Statistics.
- Henningsen, Rodney J., W. Wesley Johnson, and Terry Wells. 1999. “Supermax Prisons: Panacea or Desperation?” Corrections Management Quarterly 3:53-59.
- Hershberger, Gregory L. 1998. “To the Max: Supermax Facilities Provide Prison Administrators With More Security Options.” Corrections Today 60:54-57.
- Irwin, John. 2005. The Warehouse Prison: Disposal of the New Dangerous Class. Los Angeles, CA: Roxbury.
- King, Roy. 2005. “Effects of Supermax Custody.” Pp. 118-145 in The Effects of Imprisonment, edited by Alison Lieblich and Shadd Maruna. Portland, OR: Willan Publishing.
- . 1999. “The Rise and Rise of Supermax: An American Solution in Search of a Problem?” Punishment and Society 1:163-186.
- Kurki, Leena, and Norval Morris. 2001. “Supermax Prisons.” Pp. 385-424 in Crime and

- Justice: A Review of Research, vol. 28, edited by Michael H. Tonry. Chicago, IL: University of Chicago Press.
- Lawrence, Sarah, and Daniel P. Mears. 2004. Benefit-Cost Analysis of Supermax Prisons: Critical Steps and Considerations. Washington, D.C.: The Urban Institute.
- Light, Stephen C. 1990. "Measurement Error in Official Statistics: Prison Rule Infraction Data." Federal Probation 54:63-68.
- Logan, Charles. 1993. "Criminal Justice Performance Measures for Prisons." Pp. 15-59 in Performance Measures for the Criminal Justice System. Washington D.C.: Bureau of Justice Statistics.
- Lovell, David, Kristin Cloyes, David Allen, and Lorna Rhodes. 2000. "Who Lives in Super-Maximum Custody?" Federal Probation 64:33-38.
- Lovell, David, and Clark Johnson. 2004. Felony and Violent Recidivism among Supermax Prison Inmates in Washington State: A Pilot Study. Seattle, WA: University of Washington.
- MacKenzie, Doris L. 1997. "Criminal Justice and Crime Prevention." Pp. 9.1-9.76 in Preventing Crime: What Works, What Doesn't, What's Promising, edited by Lawrence W. Sherman, Denise Gottfredson, Doris L. MacKenzie, John Eck, Peter Reuter, and Shawn Bushway. Washington, D.C.: Office of Justice Programs.
- McCorkle, Richard C., Terance D. Miethe, and Kriss A. Drass. 1995. "The Roots of Prison Violence: A Test of the Deprivation, Management, and Not-So-Total Institution Models." Crime and Delinquency 41:317-331.
- Mears, Daniel P. 2006. Evaluating the Effectiveness of Supermax Prisons. Washington, D.C.: The Urban Institute.
- . 2005. "A Critical Look at Supermax Prisons." Corrections Compendium 30:6-7, 45-49.
- Mears, Daniel P., and Jennifer L. Castro. 2006. "Wardens' Views on the Wisdom of Supermax Prisons." Crime and Delinquency 52:398-431.
- Mears, Daniel P., and Michael D. Reisig. 2006. "The Theory and Practice of Supermax

- Prisons.” Punishment and Society 8:33-57.
- Mears, Daniel P., and Jamie Watson. 2006. “Towards a Fair and Balanced Assessment of Supermax Prisons.” Justice Quarterly 23:232-270.
- Miller, Nan D. 1995. “International Protection of the Rights of Prisoners: Is Solitary Confinement in the United States a Violation of International Standards?” California Western International Law Journal 26:139-172.
- Montgomery, Michael. 2005. Locked Down: Gangs in the Supermax. March 16. St. Paul, MN: American RadioWorks.
- Morris, Norval, and David J. Rothman, eds. 1995. The Oxford History of the Prison. New York: Oxford University Press.
- National Institute of Corrections. 1997. Supermax Housing: A Survey of Current Practice. Washington, DC: National Institute of Corrections.
- Neal, Donice, ed. 2003. Supermax Prisons: Beyond the Rock. Lanham, MD: American Correctional Association.
- Pizarro, Jesenia, and Vanja M.K. Stenius. 2004. “Supermax Prisons: Their Rise, Current Practices, and Effect on Inmates.” The Prison Journal 84:248-264.
- Pizarro, Jesenia, Vanja M.K. Stenius, and Travis C. Pratt. 2006. “Supermax Prisons: Myths, Realities, and the Politics of Punishment in American Society.” Criminal Justice Policy Review 17:6-21.
- Preer, Robert. 2004. “The Solitary Men.” The Boston Globe Magazine, April 4, pp. 30-37.
- Reisig, Michael D. 1998. “Rates of Disorder in Higher-Custody State Prisons: A Comparative Analysis of Managerial Practices.” Crime and Delinquency 44:229-244.
- Rhodes, Lorna A. 2004. Total Confinement: Madness and Reason in the Maximum Security Prison. Los Angeles, CA: University of California Press.
- Riveland, Chase. 1999a. “Prison Management Trends, 1975-2025.” Pp. 163-203 in Prisons, edited by Michael H. Tonry and Joan Petersilia. Chicago: University of Chicago Press.
- . 1999b. Supermax Prisons: Overview and General Considerations. Washington, D.C.:

National Institute of Corrections.

Rossi, Peter H., Howard E. Freeman, and Mark W. Lipsey. 2004. Evaluation: A Systematic Approach. 7th ed. Thousand Oaks, CA: Sage.

Sheppard, Robert A., Jeffrey A. Geiger, and George Welborn. 1996. "Closed Maximum Security: The Illinois SuperMax." Corrections Today 58:84-87.

Sparks, Richard, Anthony E. Bottoms, and Will Hay. 1996. Prisons and the Problem of Order. Oxford, England: Oxford University Press.

Stickrath, Thomas J., and Gregory A. Bucholtz. 2003. "Supermax Prisons: Why?" Pp. 1-14 in Supermax Prisons: Beyond the Rock, edited by Donice Neal. Lanham, MD: American Correctional Association.

Sullivan, Laura. 2006. Life in Solitary Confinement. Three-part series, July 26-28. Washington, D.C.: National Public Radio.

Sykes, Gresham M. 1958. The Society of Captives. Princeton, NJ: Princeton University Press.

Toch, Hans. 2003. "The Contemporary Relevance of Early Experiments with Supermax Reform." The Prison Journal 83:221-228.

———. 2001. "The Future of Supermax Confinement." The Prison Journal 81:376-388.

Useem, Bert, and Peter Kimball. 1991. States of Siege. New York: Oxford University Press.

Van Voorhis, Patricia, Michael Braswell, and David Lester, eds. 2004. Correctional Counseling and Rehabilitation. 5th ed. Dayton, OH: LexisNexis Group, Anderson Publishing.

Ward, David A. 1995. "A Corrections Dilemma: How to Evaluate Super-max Regimes." Corrections Today 57:104-108.

Ward, David A., and Thomas G. Werlich. 2003. "Alcatraz and Marion: Evaluating Super-maximum Custody." Punishment and Society 5:53-75.

Wells, Terry L., W. Wesley Johnson, and Rodney J. Henningsen. 2002. "Attitudes of Prison Wardens Toward Administrative Segregation and Supermax Prisons." Pp. 171-180 in Correctional Perspectives, edited by Leanne F. Alarid and Paul F. Cromwell. Los Angeles, CA: Roxbury.

Table 1. Evaluation Research and the State of Evidence Concerning Supermax Prisons

Question	State of Evidence
Are supermaxes needed?	<i>Minimal</i>
Do they rest on sound theory and design?	<i>None</i>
Are they typically implemented in a consistent and appropriate manner?	<i>Minimal; some documented implementation problems</i>
Do they achieve their intended goals (i.e., impacts)?	<i>Minimal; many documented unintended negative impacts</i>
Are they cost-efficient?	<i>None</i>
