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MANAGING VIOLENT INDIVIDUALS IN CORRECTIONAL SETTINGS

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assaultive type offences and robbery, property offenses which included theft and fraud, drug related offences, and other criminal code offences (e.g., criminal negligence). A comparison of the rates for these

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insert Figure 3 about here

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various offence groups suggests that the seriousness of the offence the inmate is serving is also unrelated to the risk of involvement in violent prison incidents. Offenders serving sentences for violent crimes show rates of involvement in prison violence similar to or lower than those of property offenders. For example, in 1984, individuals convicted of break and enter offences showed a rate of involvement of 124 per 1000. In contrast, individuals convicted for murder showed a rate of involvement of 98 per 1000, those convicted for manslaughter a rate of 95 per 1000, and those convicted for armed robbery a rate of 123 per 1000.

Figure 3 also shows that the rate of involvement in prison violence for property offenders increased more substantially over time. This suggests that as the overall level of violence in a correctional system increases, it may be property offenders who become particularly more active and not those offenders

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involvement in violent incidents for short-term inmates have increased markedly over the past few years, in concert with the overall increase in the incidence of violence experienced by the system. In 1981, for example, the shortest-term inmates showed a rate of involvement in violent incidents of 107 per 1000, when the overall rate for the system stood at 91 per 1000 inmates. In 1984, however, while the overall rate for the system increased to 117 per 1000 inmates, the rate for these short-term inmates jumped to 189 per 1000.

In contrast, the rate of involvement for long-term inmates has remained fairly stable over the years, increasing only somewhat from 88 per 1000 in 1981 to 97 per 1000 in 1984. These findings of a relatively low rate of involvement in violent incidents among inmates serving long terms is consistent with previous research in other jurisdictions (Flanagan, 1980; Williamson & Thomas, 1984).

Figure 3 shows rates of involvement in violent prison incidents over the same time period by major offence groupings. Major offence was grouped into four broad categories: violent offences which included

these two factors (Austin, 1984). One consequence is that long-term offenders, particularly those serving life sentences for murder, tend to be placed and kept in high security institutions. Figure 1 illustrates

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this point. Overall, about 53% of those individuals serving life sentences in the Canadian federal correctional system as of October 31, 1985, were being held in maximum security settings. This was the case in spite of the fact that these long-term individuals made up only about 13% of the total inmate population. In contrast, only about 15% of those individuals serving less than five years were being held in maximum security facilities, although these individuals represented 57% of the total inmate population.

Figure 2 shows rates of involvement in violent prison incidents by sentence length. Inmates serving the shortest sentences (less than two years) are by far the most active (i.e., show the greatest risk for involvement in prison violence). Inmates serving life sentences, on the other hand, show rates of involvement similar to or lower than those of other sentence groups. The figure also shows that rates of

approaches to classification in corrections are misconceived in this respect. Typically, classification is based on simple notions of the degree of security risk that certain types of inmates are perceived to present. Individuals are differentiated only very generally and the actual base rates of involvement in violent and disruptive prison incidents for different categories of inmates are ignored.

Classification criteria to assign offenders to custody settings have been adopted by many correctional jurisdictions. The criteria typically have not been empirically derived and validated (e.g., in predicting institutional adjustment). Rather, the rationale for use of the models is that they are "equitable". Offenders are dealt with fairly on the basis of criteria established through a process of consensus building among practitioners (i.e., agreement on what factors should be considered in assigning offenders to institutions at different levels of security).

As might be expected, the criteria that are agreed upon lean heavily on two factors: length of sentence and the seriousness of the current offense. It has been shown that close to 80% of the variance in assignments to custody settings can be accounted for by

coping skills may be particularly likely to resort to a pattern of impulsive and self-defeating violence. Many assaultive inmates may also be experiencing more general problems in coping. This conclusion is supported by the fact that many assaulters are also prone to engage in self-directed violence and property damage.

Programming efforts may make little difference in reducing the incidence of instrumental violence in prisons. On the other hand, a variety of interventions are available that might effectively curb the violence that stems from lack of coping skills needed to manage and control anger (Porporino & Marton, 1984). Such preventive intervention might be particularly successful if a systematic effort is made to target those individuals who are at highest risk for behaving violently.

Managing the Violence-Prone Inmate

Although violence-proneness is difficult to identify at the individual level, there are categories of inmates that certainly present a greater risk than others. Devising methods to manage these high-risk subgroups is perhaps the most promising overall strategy to prevent violence in prisons. Prevailing

stemming from enforcement of the norms of the prison subculture). However, an equally pervasive form of assaultive violence, which is perhaps more easily preventable, is the violence that erupts from the persistent interpersonal conflict and confrontations among inmates. In one study of the motives underlying prison assaults in California (Bennett, 1976), it was noted that 35% of the incidents resulted from "accidental, real or imagined insults combined with hypersensitivity" (p. 152). Much of the assaultive violence in prisons may be provoked not by issues that are important to the participants (e.g., unpaid debts), but by a marked inability to resolve relatively mild annoyances and frustrations without resorting to violence.

Other more generalized difficulties in coping may account for a significant portion of the violence in prison settings (Zamble, Porporino, & Kalotay, 1984). It was observed, for example, that self-directed violence and property damage occurs disproportionately in those custody settings where there is limitation of privileges and more restrictive security. One might expect that as prison conditions become more taxing, those individuals with the poorest

of prison violence. As shown in the first column of Table 1, assaultive incidents are clearly the most commonly occurring form of violence in prisons; 38% of all incidents reported over the five period were assaultive in nature. Of the close to 3000 individuals who were identified as involved in some type of assaultive violence, 3% were involved in incidents of murder, 57% in incidents of fighting between inmates, 40% were implicated in assaults of fellow inmates, and 22% in assaults of staff members.

Assaultive violence in prisons also tends to be part of a pattern of more generalized violent behavior. Assaulters are prone to engage in other forms of violence. For example, during the five year period that was examined, 37% of those individuals who resorted to self-directed violence and 47% of those individuals who were responsible for property damage were also implicated in some type of assaultive violence.

The figures suggest, therefore, that inter-inmate aggression or fighting is the most common form of assaultive violence in prisons. Assaults in prisons are commonly thought to be deliberate and calculated in nature (i.e., coercive or instrumental aggression

maintain order and control through more restrictive security can attain only limited success in curbing the incidence of prison violence. In the extreme, such measures may increase the motivation to engage in violence or prod the ingenuity of inmates and result in more extreme violence. As the opportunity for violence directed at others is curtailed (i.e., through disciplinary segregation), property damage and self-directed violence may become more likely. Although more restrictive security measures may limit the incidence of violence temporarily, even fairly extreme security clampdowns may not achieve significant reductions in violence in the long run (Bidna, 1974). In this regard, it is interesting to note that as violence increases in correctional settings, reliance on static security and punitive forms of control commonly increases, while more subtle and dynamic forms of control (i.e., direct supervision and interaction with inmates) become less prominent (Ellis, 1984). The very measures which may be most effective are the ones which are less likely to be used.

Turning to a comparison in the frequency of occurrence of different types of violent incidents illustrates another salient feature about the character

security settings.

The figures for the distribution of violent incidents across types of custody in the right hand portion of Table 1 further supports this point. Typically, only about 5% of the federal inmate population in Canada is held in some form of punitive dissociation (i.e., limitation of privileges and close security supervision). However, close to one third of all the reported incidents of self-directed violence (28.6%) and property damage (29.6%) occurred in these settings; about six times what might be expected on the basis of the proportion of the total population being held under this form of custody. Although less striking, the same pattern holds for assaultive incidents and general disturbances.

It is noteworthy that inmates held in protective custody seem to remain relatively uninvolved in incidents of violence. These individuals are confined in separate settings for their own safety. Although they make up about 9% of the total inmate population, they are responsible for only 2% of all incidents.

The concentration of violent incidents in higher security correctional settings suggests a simple, though often overlooked conclusion. Efforts to

types of violent incidents reported within the federal correctional system in Canada from January 1, 1980 to December 31, 1984. A total of 62 institutions are represented, dispersed across five regions of the country and varying in degree of security along a seven-point dimension from minimum (S1) to super-maximum (S7). The bottom line of the table shows how the inmate population of the system was distributed across the various security levels as of the end of December, 1984.

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insert Table 1 about here

A central feature of violence in prisons is that it occurs most often in higher security settings. For example, Table 1 shows that 53% of the reported assaultive incidents occurred in maximum security institutions, even though only 31% of the inmate population was being held in these maximum security settings. Other than escapes, which would be expected to occur more frequently in lower security settings, the same pattern of a disproportionate degree of violence in maximum security institutions is evident for other types of incidents. Self-directed violence, property damage and arson, and various types of prison disturbances all occur much more commonly in higher

remaining the same. Short-term fluctuations may be less indicative of the problem of violence than they are of variations in security and management policies (e.g., general tightening of security and increased control over inmate movement, use of segregation and dispersal of trouble-makers). On the other hand, long-term fluctuations are difficult to intrepret in relation to the many concurrent changes in policies and programs, prison conditions, and the characteristics of inmate populations.

Administrative record keeping sets limits on the kind of research which can be conducted within institutional settings (Lion & Reid, 1983). For example, predictive studies of who is most likely to be assaultive are constrained by the fact that many assaulters remain anonymous. On the other hand, aggregate level analyses of reported incidents may reveal reliable patterns in the character of violence which is occurring. These patterns might suggest how policy might be changed, or how resources and programs might be concentrated or shifted in order to prevent the greatest amount of violence.

Table 1 illustrates some general features about the character of violent incidents within correctional institutions. The percentage figures show the distribution across custody settings for different

The Character of Violence in Correctional Settings

Trends in the incidence of violence in correctional institutions are difficult to interpret. Official records of violent incidents only partly reflect the actual occurrence of violence. Under-reporting of incidents is the norm since reporting by inmates can itself lead to further victimization. In many cases assailants are neither identified nor charged, and if charged, convictions are rarely obtained since reliable testimony is unavailable. Beyond those incidents that are undetected, others are handled informally and not officially recorded. Differences in security level and supervision practices may create substantial variation across institutions and over time in how reliably incidents are recorded.

It is not clear what the relationship is among different types of violent incidents in institutional settings. Some violence can catch and spread (e.g., self-inflicted injuries), while other types of violence can trigger further violence in quick spurts of retaliation (e.g., assaults). Depending on which category of violence is examined, for what time period, and in which institutions, it may seem that the incidence of violence is decreasing, increasing, or

Some of the architectural faults of prisons may also at times lend themselves to violence (e.g., the dark corridors, backrooms and blind spots that characterize many prison settings). However, prison settings are unique in ways other than the physical layout and the kinds of rules and living conditions that are imposed on confined individuals. Because prison social environments are comprised of groups of people interacting with one another, violence may not be reduced significantly in these settings unless groups of individuals are managed so that the interactions which take place are less abrasive and less likely to provoke aggression.

This paper presents an analysis of how procedures for the classificaton and placement of inmates across various custody settings might be changed so as to be more consistent with what we know about the character of prison violence (i.e., what kind of violence is most common, where it occurs, and who is responsible for it). The special problems that crowding presents for classification and management of offender populations are also highlighted. The paper concludes with a discussion of some implications for correctional policy and practice.

the prison, aggression can become a way of life, a means to survive, an attitude and approach to relating with others that is not easily shed when the individual is returned to society.

The correctional literature abounds with theory and research relating to prison violence (Bennet, 1976; Bowker, 1980; Cohen, Cole, & Bailey, 1976; Ellis, 1984; Gibbs, 1981; Scharf, 1983). For the most part, however, these analyses have had little impact on correctional practice. Policy and program development to counteract prison violence has remained piecemeal and primarily reactive rather than preventive in scope. Innovative management approaches that might head off violence have not been perceived as having any potentially significant payoffs. Instead, traditional reactive security measures (e.g., disciplinary segregation) have been relied upon almost exclusively in the hope of deterring or controlling the violence-prone inmate.

Considering the complex interaction of personal and situational variables that can precipitate violence, approaches to reducing violence in prisons must by necessity be multifaceted (Porporino & Marton, 1984). There are no doubt prison conditions and practices that may at times fuel violent incidents.

Abstract

Data are presented on the character and distribution of violent incidents in correctional settings. It is suggested that there are subgroups of offenders who are particularly violence-prone in prisons. Preventing prison violence may hinge on how well these offenders are managed in terms of classification and placement across custody settings. The special problems that crowding presents for the management of offender populations are highlighted. Findings on the relationship between crowding, inmate turnover and violence suggest that efforts should be made to reduce the flow of inmates into and out of institutions. The paper concludes with a discussion of implications for correctional policy and practice.

Managing Violent Individuals in Correctional Settings

It is ironic that the most violent individuals in society, once apprehended and convicted, are isolated within settings where violence is especially commonplace. Violence and the threat of violence are pervasive features of life in prisons. Despite the significant reforms of the past several decades, the violent character of prisons has persisted, and indeed, has perhaps become even more brutal and unyielding (Irwin, 1980).

The costs of this violence are considerable. As violent prison incidents are sensationalized in the media, the public's confidence in the effectiveness of the correctional system is gradually eroded. Correctional programs are disrupted, the release of large numbers of disruptive inmates is delayed, and considerable direct costs are incurred to deal with the consequences of violent incidents (e.g., property destruction, inmate and staff injuries).

In the long run, the costs are also considerable for our communities. Prison settings where violence and fear are pronounced are more difficult to manage, more stressful to work in, and less likely to fulfill their social responsibility to have some positive impact on offenders. In the violent surroundings of

serving sentences for violent crimes. Overall, the rate of involvement for violent offenders increased from 102 per 1000 in 1981 to 124 per 1000 in 1984. For property offenders, however, the rate rose from 76 per 1000 in 1981 to 122 per 1000 in 1984.

The most clearly established finding in the literature on prison violence is that younger inmates are responsible for a disproportionate percentage of violent prison incidents. Younger inmates are more likely to be involved in homicides (Sylvester et al., 1977), assaultive incidents (Bennett, 1976; Ellis, Grasmick, & Gilman, 1974; Farrington & Nuttall, 1980; Flanagan, 1983; Myers & Levy, 1978; Quinsey & Varney, 1978), collective violence (Skelton, 1969), and self-injury (Toch, 1975). Younger inmates with a history of juvenile convictions, who tend to be hostile and defiant, and who have a record of prior institutional violence are particularly at "high risk" for behaving violently in prison (Bennett, 1976).

Figure 4 illustrates this pattern, showing rates of involvement in violent prison incidents by age sub-categories. Inmates in the 20 to 24 age group are consistently more likely to be involved in various types of violent incidents. Although individuals in

this age group represented about 27% of the inmate population during the four year period that was examined, they were responsible for 36% of all violent incidents that were reported.

The trends regarding sentence length and age become even more marked if we examine only assaultive violence. During the period 1980-1984, inmates in the 20 to 24 age group on admission to the system were involved in 48% of all reported assaults on fellow inmates, 53% of all assaults on staff, and 49% of all incidents of fighting between inmates. The majority of these assaultive inmates were also serving short-term sentences; 55% of those inmates involved in assaults of inmates, 59% of those involved in assaults of staff, and 54% of those involved in fights were serving sentences of five years or less.

A final point to be made is that the principle of behavioral consistency, the fact that past behavior tends to predict future behavior, is also applicable to behavior in correctional settings. Table 2 summarizes some criminal background information on a sample of inmates who were violent in prison. The sample consists of all inmates in one region of the Canadian federal correctional system who were identified as involved in violent incidents during a one year period.

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insert Table 2 about here

The findings confirm the fact that violent inmates tend to be younger individuals who are serving relatively short sentences for a variety of criminal offenses. There were no major differences on these background variables for the various violence subgroups. Assaultive inmates and those involved in both assaults and other forms of violence (i.e., mixed group) tended to receive their first criminal conviction at a younger age in comparison to the other violence subgroups. In terms of the index major offence, those individuals in the mixed group were serving sentences predominantly for violent crimes. In general, though, the profile for age, sentence length, and nature of the major offence is similar for the various violence subgroups.

Interesting differences do emerge, however, with a more detailed analysis of criminal history patterns. The criminal histories of assaultive inmates and those in the mixed violence group are characterized by both a greater absolute number of previous violent convictions and higher rates of both violent and assaultive offending over time. This is consistent with the notion of behavioral consistency; those inmates who are

most persistently violent in the community are also more likely to be assaultive in prison.

Taken together, the data presented in this section suggests that some categories of inmates are indeed more likely to engage in violent prison incidents. A reasonable approach to reduce prison violence might be to assign these high-risk inmates to particular types of custody settings where programming efforts and service delivery are geared towards violence prevention. This implies a much more sophisticated approach to classification and placement. If reducing prison disruption and unrest is to be one of the underlying aims of classification, definitions of security risk must move beyond making a simple link between degree of risk and sentence length or seriousness of the offence.

Crowding, Inmate Turnover and Prison Violence

Crowding has become a particularly difficult problem for many correctional jurisdictions (National Institute of Justice, 1980). As prison populations rise, resources typically fail to keep pace, and the entire range of programs and services available to inmates is heavily taxed.

It has been suggested that crowding within a correctional system can be viewed as an interactive variable, "sometimes causing, sometimes resulting from,

and often simply exacerbating the impact of other conditions and practices" (Clements, 1979; p. 220). In particular, overcrowding often leads to disorganization of normal institutional placement procedures and a high rate of mismatching of offenders with facilities and programs. As will be discussed below, the problems of managing violence-prone individuals become compounded by a high degree of inter-institutional movement of inmates as efforts are made to accomodate the influx of new admissions. Rather than crowded prison conditions per se, the resulting destabilization of inmate social networks may be the principal factor leading to increased violence.

It has been well established that the generally stressful features of crowded prison environments can affect the physical and psychological well being of inmates. Crowding in prisons has been associated with higher rates of psychiatric commitment (Paulus, McCain, & Cox, 1978), higher rates of illness complaints (Cox, Paulus, & McCain, 1984), increased hypertension and emotional irritability (D'Atri et al., 1981), and higher mortality rates among elderly inmates (Paulus et al., 1978).

On the other hand, the relationship between crowding and prison violence is less clear. There is some evidence that it is only younger inmates who are

more likely to behave disruptively under crowded prison conditions (Clayton & Carr, 1984; Ekland-Olson, Barrick, & Cohen, 1983; Nacci, Teitelbaum, & Prather, 1977). Other studies find that crowding has more generalized effects on prison violence levels, increases in violence occurring regardless of the age composition of the inmate population (Gaes & McGuire, 1985). Still other studies find either no consistent relationship between crowding and prison violence (Bonta & Nanckivell, 1980; Farrrington & Nuttall, 1980) or, in some cases, a relationship with decreased rates of violence (Porporino & Dudley, 1984) or increased involvement in some constructive prison activities (Jan, 1980).

It is difficult to derive any clear policy or program implications from this set of contradictory findings. It would be important to know, for example, for which types of inmates crowding is most disruptive and how this disruption could be alleviated. Psychological models of the effects of crowding suggest that responses to crowded situations are mediated by a host of factors, including various cognitive appraisal processes, individual differences in coping, and the intensity or duration of the stimulus overload and interference that is experienced (Altman, 1978; Paulus, 1980). A major shortcoming of these models, however,

is that they are exceedingly complex and difficult to operationalize or substantiate empirically. Moreover, the models do not specify under what circumstances crowding is more likely to activate aggressive responses rather than other modes of adaptation (e.g., withdrawal and depression).

In terms of practical implications for the more effective management of institutional environments, individual difference analyses of crowding effects are also limited since they ignore the role of the social setting. The focus is on the process of individual adaptation. The issue of how crowded individuals interact with one another, or how crowded conditions affect and are affected by their social context is not addressed.

In the absence of any clear research findings regarding how to minimize the negative consequences of prison crowding, correctional officials typically adopt a very simple approach; inmates are moved to where there is available space and every effort is made to reduce crowding as much as possible. However, within the social context of the prison, this solution to the crowding problem may actually create even more disruption, including an increase in prison violence (Clements, 1979; Ellis, 1984).

Ellis (1984) has highlighted the role that

constant inmate transience can play in limiting social control processes that normally function to avoid violence. The network of friendship ties and trading relationships established by inmates in a stable prison environment is undermined by the continual influx of relative strangers into the social setting. The common means of satisfying wants or needs is shifted, as a result, from the interdependencies among those possessing complementary resources, to reliance on more simple and effective ways of redistributing scarce commodities: force and/or fraud. Exchange among inmates is again undermined in that transiency makes the granting of credit risky; inmates with debts may not be in an institution long enough to negotiate repayment and the risk of retaliation is increased. Since transiency directly affects the availablity of positions within inmate cliques and other social hierarchies, higher turnover means more frequent competition for rank, which in turn can erupt in violence. The likelihood of territorial intrusions and incompatible inmate groupings also increases and social interaction with unpredictable strangers becomes generally more risky, easily escalating into physical confrontation.

Inmate transiency can also have a significant impact on guard-inmate relations. The structure of

informal norms and reciprocity is disrupted and custody becomes more onerous, regimented, and depersonalized. Static security measures (e.g., barriers and control centres) are emphasized while direct supervision and dynamic security becomes less prominent. The consequence is that tension and unrest is accentuated.

The movement of inmates also detracts from the ability of other prison staff to perform their primary role. Movement into or out of institutions ties up a range of institutional staff in the administrative work of reception and discharge. As resources and services for more vulnerable inmates are increasingly strained, the chances increase that these inmates will experience stress-related problems that may be manifested in disruptiveness.

The combined influence of these effects of transiency in the prison setting suggests that the increased movement of inmates may be an important factor contributing to increased levels of prison violence. Analysis of available archival data for the federal correctional system in Canada supports this conclusion.

Mean levels of crowding and rates of inmate transiency over a 42 month period were calculated for each of the 24 major institutions in the system.[1] The

size of the inmate population in these institutions increased overall by 38.5% during the period, and 16 of the 24 institutions were at some point operating above designed capacity. Considerable movement of inmates between institutions also occurred. For example, 13,298 inter-institutional transfers of inmates were effected during the fiscal year 82-83 with a total population at the beginning of this period of only 10,065 inmates.

Table 3 shows the correlations that were obtained between institutional rates of violence and levels of crowding and population transience.

INSERT TABLE 3 ABOUT HERE

Those institutions that experienced the greatest degree of population transience also had the highest rates of violence over the period that was examined. The relationship was significant for rates of inmate and staff assaults ($r = .58$ and $.48$) and for a general category of security incidents which included attempted or planned escapes, property damage, and other minor disturbances ($r = .44$). On the other hand, the correlations between levels of crowding and violence were consistently negative. Those institutions that were more crowded experienced lower rates of violence.

The correlation coefficients within brackets in Table 3 indicate the relationships that were obtained after partialling out the variance in violence rates attributable to differences in the security level of institutions. Although somewhat moderated, the same relationships hold. The only correlation which disappears is that between population transiency and rates of self-directed violence, suggesting that this form of violence is unrelated to transiency and simply occurs most frequently in those institutions at higher levels of security.

The finding of a negative relationship between institutional crowding levels and violence seems counterintuitive. However, it can be explained, at least in part, by the way correctional systems seem to adjust in dealing with an unexpected influx of admissions. As population levels rise, there is less adherence to established classification criteria (Clements, 1979) and more active efforts are made to distribute inmates across the network of institutions over which the system has jurisdiction. Crowding in the system leads to a greater overall rate of inmate movement.[2] Those institutions that are less crowded (particularly those at higher levels of security) are forced to receive and transfer out inmates at higher rates (i.e., in order to accommodate newcomers who

would otherwise be placed in crowded facilities). More crowded institutions, on the other hand, are unable to receive new inmates, while transfers are more difficult to effect since available space in other institutions is being used to house new arrivals. The end result of this process is that more crowded institutions are also, paradoxically, more stable and therefore less violent. Less crowded institutions have more transient populations which in turn leads to increased violence. The fact that the mean crowding level of institutions was found to be negatively correlated with mean rates of population transiency ($r = -.48$) lends supports to this analysis.

The correlations presented in Table 1 are based on cross-sectional data, with levels of crowding and population transiency for institutions averaged over a 42 month period. Although institutions with more transient populations may be generally more violent, it could be argued that the effects of crowding are more immediate. Stronger relationships between crowding and rates of violence might emerge in longitudinal analyses of short-term fluctuations within particular institutions. When we examined the data from this perspective, transiency was again found to be more strongly correlated with rates of violence. In

addition, the relationship between transiency and violence was found to vary with the security level of institutions.

Table 4 shows the values that were obtained classifying institutions by level of security, and

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INSERT TABLE 4 ABOUT HERE

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correlating rates of violence for three-month intervals with levels of crowding and population transiency for these same periods.[3] Only one significant positive correlation was obtained between crowding and rates of violence; with rates of inmate assaults in minimum security level institutions ($r = .27$, $p<.05$). On the other hand, levels of population transiency correlated significantly with rates of staff assaults ($r = .33$, $p<.05$) and the category of other security incidents ($r = .32$, $p<.05$) in minimum security institutions; with rates of inmate assaults ($r = .44$, $p<.001$), staff assaults ($r = .25$, $p<.05$) and other security incidents ($r = .32$, $p<.05$) in low medium security institutions; and with rates of staff assaults ($r = .30$, $p<.05$) in high medium security institutions. Neither crowding nor transiency correlated significantly with rates of violence in maximum security institutions.

Combining the results of both the cross-sectional

and longitudinal analyses leads to the following conclusions. Crowding in and of itself is not reliably correlated with increases in rates of institutional violence. The effects of crowding on violence in institutional settings may have little to do with either the acute or chronic effects of increased social density. Rather, the most disruptive consequences of crowding may be the indirect effects that lead to a destabilization of social environments. Within a correctional system, crowding results in increased transiency of inmates as a process of musical beds is initiated to accommodate the influx of new admissions. Transiency in turn contributes to an increase in prison violence.

The short-term effects of transiency may be differentially related to violence in different settings (i.e., immediate effects are more apparent in low medium security institutions). Over the long term, however, it can be expected that those institutions that sustain the highest levels of transiency will also experience the greatest amount of violence. This has clear policy implications for how correctional systems are managed. Although correctional authorities have limited control over the number of inmates who are admitted or discharged from institutions, the extent to which inmates are moved from one institution to another

is under the direct control of classification policy and procedures.

Implications for Correctional Policy and Practice

This paper has suggested that violent behavior in correctional settings is consistent in that it occurs most reliably in certain kinds of custody environments, is engaged in most often by certain kinds of individuals, and is exacerbated most acutely by particular kinds of correctional practices (i.e., high turnover of inmate populations). The major conclusion which flows from the analysis is that more thoughtful attention should be paid to how offenders are classified and assigned to particular institutional environments and sub-environments. In particular, significant reductions in prison violence might be achieved if appropriate strategies were adopted to manage those inmate subgroups who are at highest risk to behave violently.

It is known that different types of inmates may be more seriously affected by different types of environments, and that personal reactions to environmental features motivate behaviour, including involvement in violent incidents (Toch, 1977). Classification of inmates typically is presented as a process whereby programs are matched to inmate needs. In reality, however, very little matching occurs beyond

the focus on security issues. Mismatches are common practice, resulting in circumstances that may contribute to considerable violence (e.g., assigning an inmate who prizes quiet into a very noisy environment, placing a staff member who is authoritarian into sustained contact with an inmate who is provoked by such behavior, placing potential bullies in unsupervised contact with easy victims). Rather than leaving the impact of prison environments to chance, more active efforts could be made to match inmates optimally to particular institutional settings and programs.

However, it is not enough to simply "mix" inmates differently. The focus must be on creating environments and sub-environments that are optimally suited to these different mixtures. By determining the conditions that are most likely to set off violence for particular individuals, attempts could be made to place them in settings (e.g., a work or housing assignment) that are less provocative and provide fewer opportunities and supports for the kind of violence they may be likely to engage in.

Since interpersonal interactions are so crucial to the nature of prison environments, an important aspect of matching is the social groupings that are

created. Individual staff members and inmates differ among themselves in the kinds of behaviors they approve of, find tolerable, or experience as abrasive. They differ among themselves in the kinds of verbal interactions they prefer, how they use or react to authority, and how in general they prefer to behave with others. Thus, there may be substantial benefits in attempting to identify and structure compatible staff members and inmates groups. If staff members and inmate who have a natural tolerance or even affinity to each other can be assigned to work together, abrasive and hostile responses may be minimized (Levinson & Kitchener, 1966).

The data that were presented on the relationship between inmate transiency and violence underscore how crucial it may be to maintain relatively stable social groups within prison environments. Despite over-crowding, correctional jurisdictions should attempt to reduce rates of inmate movement across institutions. Rather than shuttling disruptive individuals from one institution to another, greater efforts could be made to deal with the antecedants of violent behavior within particular institutions.

The findings on the character of prison violence suggest that much of this violence may stem from lack

of skills in coping with crisis situations. At one point or another during the course of their term, many inmates will experience a conflict situation or crisis which, if managed poorly, may lead to violence. Fear (e.g., of others, of inability to cope) can be a powerful motivator of violent behavior in prisons (Toch, 1975).

Many correctional staff members who have crisis-relevant skills, or who could develop such skills, are restricted from employing or developing these skills by established roles and norms. Correctional policies and procedures often are designed to regulate and control, encouraging increased regimentation and processing and greater withdrawal from inmates. An alternative is to develop a collaborative human service delivery system within prisons (Johnson & Price, 1981; Johnson & Toch, 1982). Such an approach to the management of prisons would seek consistently to minimize the stress experienced by both staff and inmates. Reductions in violence should be a natural consequence.

References

Altman, I. (1978). Crowding: Historical and contemporary trends in crowding research. In A. Baum & Y.M. Epstein (Eds.), Human responses to crowding. Hillsdale, N.J.: Erlbaum.

Austin, J. (1984). Assessing the new generation of prison classification models. Crime and Delinquency, 29, 561-576.

Bennet, L. (1976). The study of violence in California prisons: A review with policy implications. In A.K. Cohen, G.F. Cole, & R.G. Bailey (Eds.), Prison Violence. Lexington: D.C. Heath & Company.

Bidna, H. (1975). Effects of increased security on prison violence. Journal of Criminal Justice, 3, 33-46.

Bonta, J., & Nanckivell, G. (1980). Institutional misconducts and anxiety levels among jailed inmates. Criminal Justice and Behavior, 7, 203-214.

Bowker, L.H. (1980). Prison victimization. New York: Elserier.

Clayton, O., & Carr, T. (1985). The effects of prison crowding upon infraction rates. Criminal Justice Review, 10, 69-77.

Clements, C.B. (1979). Crowded prisons: A review of psychological and environmental effects. Law and Human Behavior, 3, 217-225.

Clements, C.B. (1982). The relationship of offender classification to the problem of prison overcrowding. Crime and Delinquency, 28, 72-81.

Cohen, A.K., Cole, G.F., & Bailey, R.G. (Eds.), (1976). Prison violence. Lexington: D.C. Heath.

Cox, V.C., Paulus, P.B., & McCain, G. (1984). Prison crowding research: The relevance of prison housing standards and a general approach regarding crowding phenomena. American Psychologist, 39, 1148-1160.

D'Atri, D.A., Fitzgerald, E.F., Kasl, S.V., & Ostfeld, A.M. (1981). Crowding in prison: The relationship between changes in housing mode and blood pressure. Psychosomatic Medicine, 43, 95-105.

Ekland-Olson, S., Barrick, D., & Cohen, E. (1983). Prison overcrowding and disciplinary problems: An analysis of the Texas prison system. Journal of Applied Behavioral Science, 19, 163-176.

Ellis, D., Grasmick, H., & Gilman. (1974). Violence in prisons: A sociological analysis. American Journal of Sociology, 80, 16-34.

Ellis, D. (1984). Crowding and prison violence: Intergration of research and theory. Criminal Justice and Behavior, 11, 277-308.

Farrington, D.P., & Nuttall, C.P. (1980). Prison size, overcrowding, prison violence, and recidivism. Journal of Criminal Justice, 8, 221-231.

Feld, B.C. (1977). Neutralizing inmate violence: Juvenile offenders in institutions. Cambridge, MA: Ballinger.

Flanagan, T.J. (1980). Time served and institutional misconduct: Patterns of involvement in disciplinary infractions among long-term and short-term inmates. Journal of Criminal Justice, 8, 357-367.

Flanagan, T.J. (1983). Correlates of institutional misconduct among state prisoners. Criminology, 21, 29-39.

Gaes, G.G., & McGuire, W.J. (1985). Prison violence: The contribution of crowding versus other determinants of prison assault rates. Journal of Research in Crime and Delinquency, 22, 41-65.

Gibbs, J. (1981). Violence in prisons: Its extent, nature and consequences. In R.R. Roberg & V.J. Webb (Eds.), Critical issues in corrections. New York: West Publishing Company.

Irwin, J. (1980). Prisons in Turmoil. Toronto: Little, Brown & Company.

Jan, L.J. (1980). Overcrowding and inmate behavior: Some preliminary findings. Criminal Justice and Behavior, 7, 283-290.

Johnson, R., & Price, S. (1981). The complete correctional officer: Human service and the human environment of prison. Criminal Justice and Behavior, 8, 343-373.

Johnson, R., & Toch, H. (Eds.) (1982). The pains of imprisonment. Beverley Hills: Sage Publications.

Levinson, R. & Kitchener, H. (1966). Treatment of delinquents: Comparisons of four methods of assigning inmates to counselors. Journal of Consulting Psychology, 30, 364.

Lion, J.R., & Reid, W.H. (Eds.)(1983). Assaults within psychiatric facilities. New York: Grune & Stratton.

Myers, L. & Levy, G. (1978). Description and prediction of the intractable inmate. Journal of Research in Crime and Delinquency, 15, 214-228.

Nacci, P.L., Teitelbaum, H.E., & Prather, J. (1977). Population density and inmate misconduct rates in the federal prison system. Federal Probation, 41, 26-31.

National Institute of Justice. (1980). American prisons and jails: Summary and policy implications of a national survey (Vols. 1-4). Washington, DC: Author.

Paulus, P.B. (1980). Crowding. In P.B. Paulus (Ed.), Psychology of group influence (pp. 245-290). Hillsdale, N.J.: Erlbaum.

Paulus, P.B., McCain, G., & Cox, V.C. (1978). Death rates, psychiatric commitments, blood pressure and perceived crowding as a function of institutional crowding. Enviornmental Psychology and Nonverbal Behavior, 3, 107-116.

Porporino, F.J., & Dudley, K. An analysis of the effects of overcrowding in Canadian penitentiaries. (Report No. 1984-6), Ottawa: Programs Branch, Ministry of the Solicitor General of Canada.

Porporino, F.J., & Marton, J.P. (1984). Strategies to reduce prison violence. (Report No. 1984-14). Ottawa: Programs Branch, Ministry of the Solicitor General of Canada.

Quinsey, V.L., & Varney, G.W. (1978). Characteristics of assaults and assaulters in a maximum security psychiatric unit. Crime & Justice, 5, 212-220.

Scharf, P., (1983). Empty bars: Violence and the crisis of meaning in the prison. The Prison Journal, 53, 114-124.

Skelton, D. (1964). Prison riot: Assaulters vs. defenders. Archives of General Psychiatry, 21, 359-362.

Stokols, D. (1976). The experience of crowding in primary and secondary environments. Environment and behavior, 8, 49-86.

Sylvester, S., Reed, J., & Nelson, D. (1977). Prison homicide. New York: Spectrum.

Toch, H. (1969). Violent men: An inquiry into the psychology of violence. Chicago, Aldine.

Toch, H. ((1975). Men in Crisis: Human breakdowns in prison. Chicago: Aldine.

Toch, H. (1977). Living in prison: The ecology of survival. New York: Macmillan.

Williamson, H.E. & Thomas, T.K. (1984). Prison misconduct among life-without-parole inmates. Paper presented at the meeting of Academy of Criminal Justice Sciences, Chicago, Illinois.

Zamble, E. Porporino, F.J. & Kalotay, J. (1984). An analysis of coping behavior in prison inmates. (Report No. 1984-77), Ottawa: Programs Branch, Ministry of the Solicitor General of Canada.

Author Notes

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Footnotes

[1]The institutions that were examined were at the S3 level of security or higher and had similar types of living quarters: individual cells designed for single occupancy and providing about 60 sq. ft. of living space. Increases in population size above capacity were accommodated through double-bunking. Crowding was defined as the ratio of an institution's average monthly population over that month's institutional capacity. Rates of transiency were determined by calculating monthly movement into or out of the institution (i.e., number of inter-institutional transfers, admissions, and releases) and dividing by the average monthly head count. Transiency was thus examined as a relative rate per 100 inmates, controlling for population size. Monthly crowding and transiency indices were averaged over the 42 month period for each institution.

[2]The monthly increase in total population levels over the period of study correlated significantly ($r = .43$, $p < .01$) with the rate of inmate movement into or out of institutions.

[3]Three month lagged correlations did not significantly alter the pattern of relationships shown in Table 3.

Distribution of Reported Security Incidents Within the Canadian Federal Correctional System by Security Level and Custody Type (1980-1984)

Nature of Incident	% of Total	% by Security Level					% by Custody Type[a]		
		Min. S1/S2	S3	S4	S5	Max. S6/S7	Regular Population	Segregation	Protective Custody
Assaultive	38.4	1.5	4.1	22.8	18.6	53.1	88.4	9.3	2.3
Self-Directed	21.9	1.0	2.5	18.1	11.9	66.4	68.4	28.6	3.0
Property Damage	13.1	.6	3.1	23.0	13.9	59.3	68.7	29.6	2.3
Escapes	24.8	42.8	7.1	21.8	15.5	12.9	98.4	1.2	.4
Other Incidents	1.7	.7	2.1	17.7	22.0	57.5	85.8	11.7	2.5
All Incidents	100.0	11.5	4.4	21.5	15.8	46.9	83.7	14.3	2.0
% of Total Inmate Population[b]		17.4	8.3	28.0	15.5	30.8	85.5	5.1	8.9

Note: The percentage figures are based on the total number of security incidents reported between January 1, 1980 and December 31, 1984 (n = 8278) where an individual or number of individuals were identified as responsible for the incidents. The figures are therefore an underestimate of the actual number of incidents that occurred. Assaultive incidents includes inmate fights and murder, attempted murder, or assaults of staff or inmates. Self-directed violence includes suicides, attempted suicides, and self-inflicted injuries. Property damage includes wilful destruction of property and arson. Escapes subsumes actual or attempted escapes from an institution or security escort, and other incidents refers to major/minor disturbances and hostage takings.

[a]Segregation custody refers to inmates held in punitive or administrative dissociation (i.e. for the good order of the institution) and those placed in super-maximum security Special Handling Units. Protective custody inmates are separated from the regular inmate population for their own safety. The percentage figures are based on the total number of incidents for which custody type was coded (n = 7601).

[b]As of the end of December, 1984 the inmate population stood at 11,812.

Table 2

Summary of Criminal Background Information for Inmates Involved in Different Types of Violent Incidents

	Type of Incident									
	Assaultive (n = 61)		Self-Directed (n = 57)		Property Damage (n = 13)		Mixed (n = 11)			
Criminal Background Factors	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F	p
Sentence length (months)	68.2	48.7	90.3	74.6	72.6	57.9	102.9	84.5	2.2	ns
Age at first conviction	17.3	1.6	18.3	4.1	19.5	5.0	17.4	2.0	2.8	.04
Age at first violent conviction	20.9	4.0	23.4	6.2	24.2	7.7	21.2	5.9	2.4	ns
Age at sentencing	25.5	6.0	26.3	6.4	26.5	8.3	23.8	4.7	.6	ns
Index Major Offence										
% Violent	65.6		70.2		61.5		90.9			
% Assaultive	29.5		36.8		30.8		54.5			
% Non-violent	34.4		29.8		38.5		9.1			
Criminal History										
Total convictions	16.0	9.4	16.9	9.6	13.5	6.4	14.9	4.8	.50	ns
Violent convictions	2.6	2.5	1.4	1.4	1.8	2.1	2.1	2.1	4.56	.004
Non-violent convictions	13.4	9.4	15.5	9.6	11.7	5.9	12.0	5.7	.84	ns
Total conviction rate	2.2	1.8	2.2	1.6	1.8	1.5	2.7	1.7	.56	ns.
Violence conviction rate	.4	.6	.2	.2	.2	.3	.5	.7	5.70	.001
Assaultive conviction rate	.3	.3	.1	.2	.2	.2	.7	.8	4.55	.004

Note: The mixed group includes individuals who were involved in both prison assaults and other forms of violence. Conviction rates for individuals (i.e., average rates of offending per year) were calculated defining time at risk as the number of years from age 15 to age at last sentencing. The assaultive conviction rate refers to t[illegible]

Table 3

Correlations of Institutional Rates of Violence with Levels of Crowding and Population Transience

Rates of Violence	Crowding	Transience
Assaults on Inmates	-.61***(-.46)	.58**(.47)
Assaults on Staff	-.59** (-.30)	.48* (.29)
Self-Directed Violence	-.64***(-.37)	.31 (.03)
Other Security Incidents	-.52** (-.19)	.44* (.22)

Note: Rates of violence and levels of crowding and population transience were averaged over a 42 month period. Figures in brackets are the values obtained after partialling out the variance in violence rates due to differences in the security level of institutions.

*p .05 **p .01 ***p .001

Table 4

Correlations by Security Level for Rates of Violence Over Time with Crowding and Transience

Rates of Violence	Security Level							
	Min. 3		Min. 4		Min. 5		Min. 6	
	CR	TR	CR	TR	CR	TR	CR	TR
Assaults on Inmates	.27*	.21	.04	.44***	.10	.11	-.07	.17
Assaults on Staff	-.41**	.33*	.14	.25*	.01	.30*	.03	-.01
Self-Directed Violence	-.07	.04	-.19	.15	-.09	-.11	-.01	-.02
Other Security Incidents	-.32*	.32*	.11	.32**	-.12	-.03	-.13	-.02

*p .05 **p .01 ***p .001

Figure Caption

Figure 1. Distribution across security levels for long-term and short-term inmates in the Canadian federal correctional system (as of October 31, 1985).

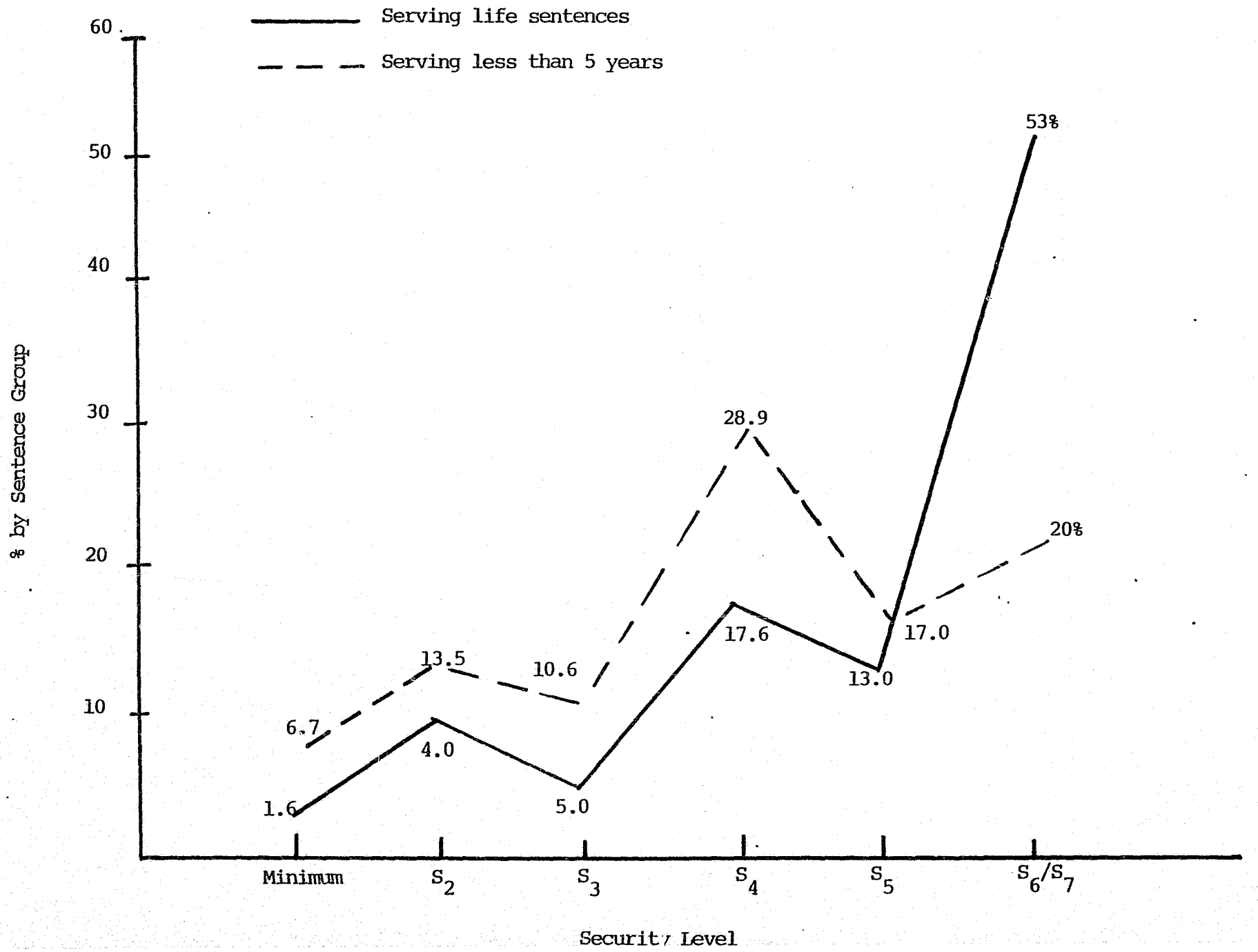

Serving life sentences
Serving less than 5 years
60
50
40
30
20
10
% by Sentence Group
53%
28.9
20%
17.0
17.6
13.5
10.6
13.0
6.7
4.0
1.6
5.0
Minimum
S2
S3
S4
S5
S6/S7
Security Level

Figure Caption

Figure 2. Rates of involvement in violent prison incidents by sentence length sub-groups (1981-84).

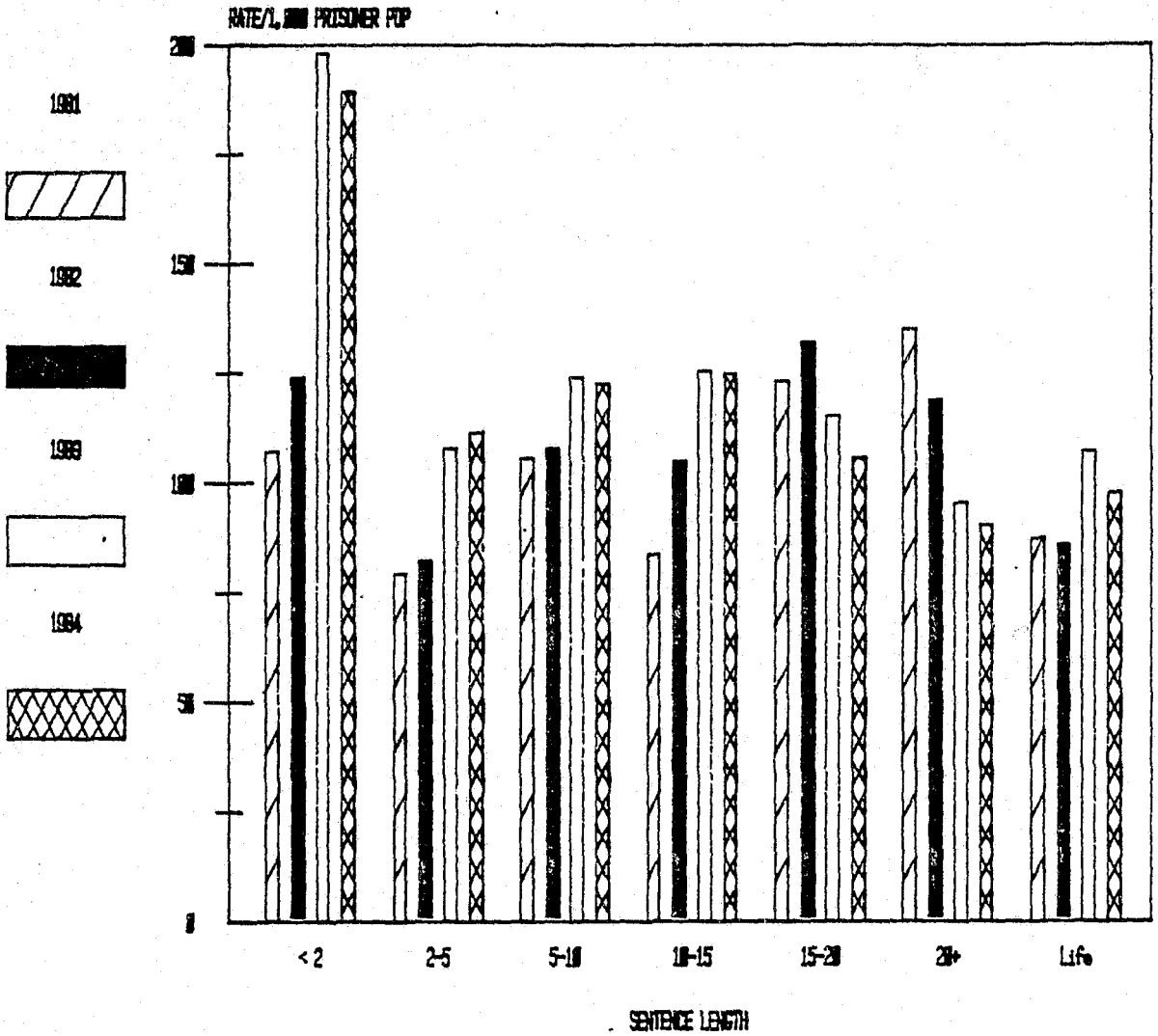

RATE/1,000 PRISONER POP
1991
1992
1993
1994
< 2
2-5
5-10
10-15
15-20
20+
Life
SENTENCE LENGTH

Figure Caption

Figure 3. Rates of involvement in violent prison incidents by major offence sub-groups (1981-84).

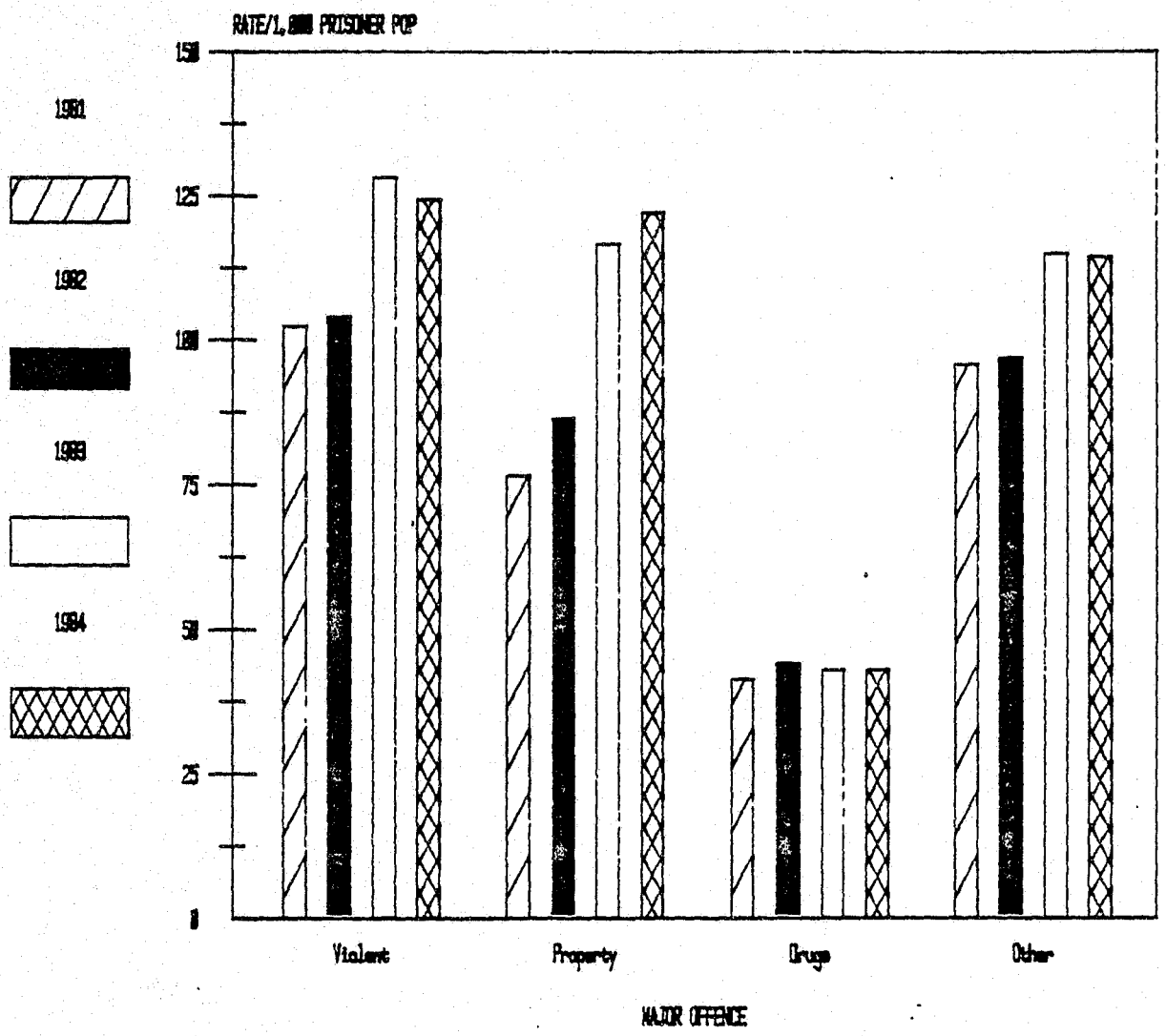
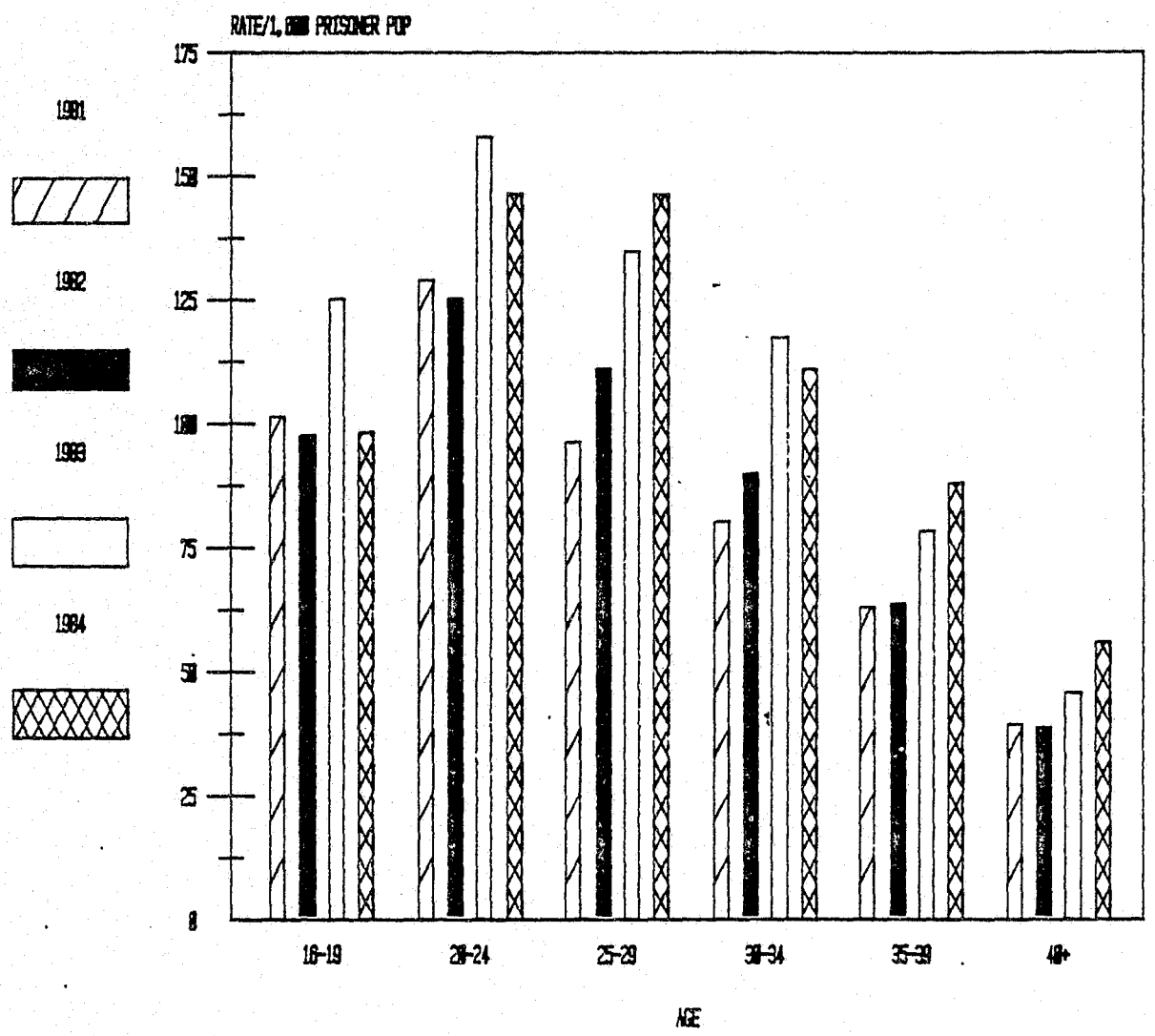

RATE/1,000 PRISONER POP
150
125
100
75
50
25
0
1981
1982
1983
1984
Violent
Property
Drugs
Other
MAJOR OFFENCE

Figure Caption

Figure 4. Rates of involvement in violent prison incidents by age sub-groups (1981-84).


RATE/1,000 PRISONER POP
175
150
125
100
75
50
25
0
1991
1992
1993
1994
16-19
20-24
25-29
30-34
35-39
40+
AGE