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THE EFFECT OF CELL FRONT TYPE ON INMATE MISBEHAVIOR

by

THOMAS JOSEPH MILLER

A dissertation submitted to the Graduate Faculty in Criminal Justice in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

1989

This manuscript has been read and accepted for the Graduate Faculty in Criminal Justice in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

Carl F. Wiedemann

January 5, 1989
Date

Dr. Carl F. Wiedemann
Chair of Examining Committee

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Abstract

THE EFFECT OF CELL FRONT TYPE ON INMATE MISBEHAVIOR

by

Thomas Joseph Miller

Advisor: Professor Carl F. Wiedemann

The behavior of 621 inmates housed in both solid (closed) fronted cells and open (bar) fronted cells were compared during a six month period in 1984. Inmate behavior was measured by involvement in prison disciplinary proceedings. The data for the study was collected from prison records. Behavior was measured in terms of overall, major, mid-range and minor rule violations. The analysis included factors such as: age, education, race, religion, prior criminal history, drug use history and type of crime. The study also reviewed the effect on behavior of participation in selected prison programs.

DEDICATION

This study is dedicated to two gentlemen who have influenced me the most in my life.

Frederick H. Miller Jr., the man who taught me two most important things. First, that happiness and fulfillment come from two things: Being committed to something greater than yourself and Being all that you can be. Second, that knowledge is no weight to carry but that ignorance is an intolerable burden.

Carl F. Wiedemann, the man who both taught me how to see the concepts behind the raw facts and data, and who proved by example that being a good mentor is more than just being a teacher --- it is being a caring and sharing friend.

Without the guidance and support of these gentlemen, this study and my life as a student would have been neither possible nor fulfilling.

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In addition to those to whom this study is dedicated I would like to acknowledge my debt and gratitude to the following people:

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Ms. Ellen Donovan of the N. Y. Dept. of Corrections

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My family, for both the nights spent helping me and the nights spent without me.

My fellow students, partners and friends, Hank Deluca, who is always there when you need him and John Markey, who gave me both the help and encouragement that made all the difference between quitting and finishing.

My many teachers, friends and associates who encouraged me in this work and tolerated my absentmindedness during this pursuit of professorship.

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CHAPTER ONE

INTRODUCTION

This dissertation is a study of the effect of architectural barriers on misbehavior by inmates. "Architectural barriers" in this study will mean specifically cell front types, bars versus solid walls and doors. It is conceived that solid barriers will reduce stress due to perceived lack of privacy and perceived environmental incursions (noise etc.) thus implying that it is stress that regulates reported inmate misbehavior. This study will take into account demographic and other inmate characteristics.

In the seminal study "The Behavioral Sink" (Calhoun, 1962) the effects of overcrowding and over-stimulation on behavior were discussed in term of the breakdown of behavior patterns of mice colonies. There has been considerable research since then which attempts to relate the issues of crowding and sensory over-stimulation to deviation from expected behavior in both animal and human groups. The results of these studies have been mixed. However the application of the concepts behind the various hypotheses of the studies have been applied in various fields of human control through architecture, particularly in the field of corrections and prison construction. These applications imitate those studies because the studies seem to substantiate such concepts or because the concepts seem to be

intuitively correct. This has led to the promulgation of standards for the construction of prisons that relate to total population, noise levels, lighting levels, square feet per person of sleeping and recreation space, and provision for degrees of privacy and control of personal space. The result of these standards is a redesign of the prison from the old fortress facility to a smaller, well lighted and ventilated, less restrictive-appearing environment. Whether these changes are justified by an increase in the level of humaneness of the environment as exhibited by a decrease in resident stress, or a decrease in behavioral problems has not been extensively studied. The effect of the newer construction style on stress as measured by changes or differences in misbehavior or other objective criteria will be the focus of this study. The newer style of construction for prisons is aesthetically pleasing and seems intuitively to be less stressful than the old massive congregate prisons thus justifying the substantial cost difference. However, nothing approaching a randomized experiment, under controlled conditions, of contrasting housing units has been forthcoming in the scientific literature available to date.

There is significant literature that focuses on the issues of environmental stressers as they affect human behavior. These stressers include heat, lighting levels, noise levels, area and/or square footage per person. Also

included are a series of less objectively measurable items which, although more difficult to operationally define, seem to have an impact on behavior. These items can be described as follows: significant contacts per unit of time; total contacts per unit of time; perceptions of privacy; perceptions of control and/or defensibility of personal space. All of these stressers are or can be affected by physical structures and architectural barriers.

Human behavior is an extremely complex phenomenon. The factors that contribute to causing and modifying behavior are potentially innumerable. However, correlations can be established between certain demographic, acquired, situational, and environmental factors such that the prediction of behavioral reactions can, to some extent, be done with a level of accuracy that exceeds that of random guessing.

This dissertation will report the findings of a study which attempts to predict incidents of proscribed and sanctioned behavior based on environmental stress inhibitors.

The basic premise of this study is that, in a prison setting, those subjects who were housed in units which provided the higher degree of physical barriers to the transmission of environmental stressers (e.g. noise, loss of perceived privacy, loss of perceived control of personal space) will have lower stress levels and will engage in less acting out behavior as measured by involvement in the prison

disciplinary mechanism. The specific comparison of housing units is between cells with solid fronts (specifically solid walls with solid doors the only opening into the cell being a six inch by eight inch window opening cut into the cell door at the height of five feet) contrasted with cells with barred fronts (specifically inch thick bars set in a grid of four inch to six inch on center vertical rows such that the entire front of the cell is open to the environment).

This is actually a comparison of an environment which provides a high barrier to intrusion (such as reach-in theft) compared with an environment which provides minimal barrier to such intrusion. If all other factors are held equal, the residents of bar fronted cells should exhibit more misbehavior than the residents of the cells with solid wall and door fronts.

In addition to the primary hypothesis, noted above, three additional hypotheses will be examined. These deal with the concept of using the threat of loss of status or privilege as a behavioral control. There are various programs offered to the inmate population, many of which are both voluntary and restricted to inmates who show an acceptable disciplinary record. Three such programs will be examined as to the disciplinary records of the participants, to determine if the requirement of maintaining a "clean" record (no or few infractions and no serious infractions) has an effect on the behavior of the inmate participants when contrasted with the

general population.

The premise of these programs is that inmates who participate do so to garner immediate benefits such as high pay, extra privileges or future employment potential and to acquire a record of program participation that will favorably impress the Parole Board and thus increase the inmate's possibility of being released from prison as soon as possible. The participants are continuously made aware that if they are found guilty of either multiple minor or a single serious disciplinary violation they will loose the privilege of participating in the program in addition to the disciplinary penalties assessed for the rule violation(s).

The programs whose effects are to be tested are described in the following paragraphs.

PRISON INDUSTRIES

Prison Industries is a program that attempts to duplicate the "Free World" working environment. The wages paid are usually over five times that available in any other prison program or work assignment. The assigned inmates are housed together and follow a routine different from the rest of the population. The inmates rise earlier and are fed separately. They punch a time clock and accrue leave time in a manner similar to unionized workers in other industrial settings. The work day is disrupted by prison routine as little as possible. The program provides wages substantial enough to permit a large accrual on savings prior to release.

COLLEGE PROGRAM

College programs are provided through the local colleges and offer one year certificates in specialized subjects such as Juvenile Justice, two year associates degrees in a variety of subjects, four year bachelor of arts degree and master of arts degrees in subjects such as sociology. These programs, in addition to the potential of favorably impressing the Parole Board, offer the opportunity to acquire knowledge for the sake of knowledge and to earn a certificate or degree that may assist in enhancing the inmate's future potential employment options.

HONOR BLOCK

Honor Block program participants receive, in addition to positive Parole Board recommendations, a variety of both privileges and release from restriction that apply to the general population. The Honor Block (North Hall) is the newest, roomiest, best furnished and least crowded of all the housing unit complexes. The access to television and other privileges is extensive when compared to general population housing.

The threatened loss of the privilege of participation in these programs, due to misconduct, is assumed to provide behavioral control. The three hypotheses to be tested will investigate whether participation in these programs actually provides such behavioral control.

This dissertation will attempt to provide information

about the effect of barriers to environmental stress transmission and the behavioral consequences and about the effect on behavior of the use of potential loss of the privilege of participating in certain assumedly desirable programs. There are, in addition, certain operational and program planning benefits that are potentially available as a result of this study. These potential benefits relate to both prison construction and design issues and to prison program planning and operation issues. These areas might benefit from the results of this research due to the current prison population boom.

Three factors indicate that there will be a continuation of construction activity in the area of penal institutions. One is the astronomical growth of the inmate population (Gest, 1984). A second is the massive construction programs costing millions of dollars both underway and in various stages of planning (National Institute of Corrections, 1982). A third is the projected continued growth of the prison population (Gest 1986). If more prisons are to be built, they should be designed to provide the physical environment which enhances manageability. This means the creation of an environment which minimizes stress and consequently generates little misbehavior. Further, the programs established whether in new or existing facilities should be formulated on a rational basis. This would include a calculation of the behavioral control potential of the

programs along with the other usual considerations of public relations, cost, staffing and resources requirements such as space. Resources available to penal systems are limited and should be utilized to provide optimum effect. The cost of construction of a prison can be significantly lower if there is no need to follow the current trend of developing facilities that resemble a college campus (Cohen 1982). The use of funds for programs should be concentrated in enhancing facility manageability along with the goal of rehabilitation (Andersen, 1982).

These potential operational benefits are significant in view of the current and projected growth in correctional systems and complement the potential academic value of this work.

CHAPTER TWO

THEORETICAL PERSPECTIVES AND REVIEW OF THE LITERATURE

The hypothesis that inmates in closed- fronted cells (when compared to occupants of open [bar] fronted cells) will engage in less and or less serious misbehavior is predicated on a socio-enviornmental concept: that a barrier to the transmission or perception of environmental stressers will provide a less stressful environment and consequently less stress-related acting-out.

Calhoun (1970) proposes that interactions between individuals are regarded by them as either significant (desirable or not) or insignificant. The ability to ignore others (insignificant interrelations) is the controlling factor that permits a large group to occupy a small physical space. Overcrowding is defined as an excess of insignificant input that cannot be avoided or ignored but must be dealt with by the individual in a given unit of time. Overcrowding is a stresser and produces stress-related acting out behavior. Expressed another way stress is determined by how permeable a individual's personal space is. The invasion of personal space which leads to a flight or fight reaction (Hayduk 1983) may be physical or sensory (light and sound). The amount of personal space people require is both a function of their culture and their age. The personal space

required by a person grows between the ages of approximately three and twenty-one, by which time it is a firmly fixed requirement changing only by situation (Hayduk, 1983).

The situational factors which effect the area of personal space an individual requires are the basis of spatial perceptions and individuals' sense of heat, light, odor and sound. In addition to visual perceptions of crowding, the more senses involved or stimulated, the more a situation is likely to be perceived as crowded (Hall, 1969). The individuals knowledge and attitude towards the situation affect their perceptions of crowding. Individuals familiar with an environment are more favorably disposed to accept and are less disturbed by an adverse situation, thus, one will avoid the first two normal reactions of withdrawal and aggression and exhibit instead a third reaction of adaptation (Lee, 1968). The perception of control by the individual over the situation or adverse stimulation will reduce the stress effects of the situation (Glass, 1973).

It is necessary to expound briefly upon the perceptual basis of crowding generated stress to delineate the dimension of intrusion versus privacy. Noise can be perceived by an individual alone in a room as an intrusion. The element of noise can be defined as an unpleasant or unwanted sound. The effect of noise is related to both performance and mood. Noise will not disrupt the process of an individual's absorbing data or cues but it will decrease the ability to

manipulate each datum or cue, particularly in terms of social situations (Siegel, 1979). Noise experiments also show the effect of the perception of control over the stimuli as affecting the result of noise exposure. The amount of altruistic or helping behavior exhibited by subjects exposed to noise was highest in the "Pleasant" (seashore sound) noise group and lowest in the "Unpleasant" noise group. In the group exposed to "Unpleasant" noise but given the "Perception of Control" by being told they could have the noise stopped, the level of helping behavior was between the extremes (Sherrod, 1974).

In addition to reduction in perceptiveness or use of cues in social situations and reducing cooperative behavior during and after exposure, noise creates difficulty in cooperative tasks. Errors in complex tasks are due to the fact that efforts to block out noise cause cognitive blocking of data needed in these tasks. Further, noise exposure lowers post exposure frustration tolerance and has been cited as creating difficulties in interpersonal (e.g. family) relationships for people experiencing conditions of high noise level exposure over long periods of time (Cohen 1982). These effects of noise intrusion into personal space are an example of "non-physical" crowding which comprise a significant component of the concept of environmental crowding.

The effect of physical (ie. spatial) and social density

as crowding has been more extensively explored. The aspects and effects of crowding are complex. Individuals subjected to crowding while performing complex tasks exhibit a decrease in functioning (Evens, 1979) that is similar to the functional decrease shown by people subjected to noise. Also, the after effects of noise and crowding appear to be similar. Subjects exposed to crowded conditions exhibit a lower frustration tolerance even after the crowding condition is alleviated (Sherrod, 1974). Crowding is less a definable physical situation than a perception of a situation.

The results of a study, in which subjects were asked to study and arrange dolls and furniture in a room revealed that crowding perception is more a matter of excessive social stimulation and not merely a function of lack of physical space. The perception of whether or not a situation is crowded varies with the activity that is being conducted (Desor, 1972). The function of perception on the effect of crowding is so strong that the anticipation of crowding arouses both stress and discomfort in individuals in a manner similar to the actual event of being crowded (Baum, 1975).

Crowding situations can be classified into a series of situations based on physical and social factors. Spatial density can be experienced as crowded or uncrowded. Social density (the density of interactions per unit of time) can also be experienced as crowded or uncrowded. Either spatially or socially dense situations arouse a crowding-related stress

response. However, the socially dense situation has been shown to be more stressful than the experience of physical crowding. A major component of either social or spatial crowding situations is the amount of structure (rule definition, authority, activity focus) that exists in the situation. Unstructured situations whether spatial or social, are more stressful than structured situations. Thus of the four possible types of crowding situations (structured physical, unstructured physical, structured social and unstructured social), structured physical crowding is the least stressful and unstructured social crowding is the most stressful, leading subjects to exert the greater efforts to withdraw or limit contacts with others. (Baum, 1976).

In a study of small groups and individuals conducted in the United States Military, stress, annoyance, hostility and adaptation to crowding situations were measured. Subjects were allocated to one, two or three person groups and placed in either physically crowded or physically uncrowded isolation for a twenty-one day period. The multiple person groups were pre-tested for incompatibility and groups were set up to compare compatible and incompatible groupings. In addition to the compatibility factor, the designated group leadership was assessed in terms of senior versus junior officers. The results of the study showed that individual isolation produces high stress regardless of the physical setting. The effect of not being physically crowded was shown

in that less crowded groups exhibited the higher hostility levels and yet in the three person grouping the highest level of adaptation to confinement was also evident. Compatible groups expressed more annoyance with the physical aspects of the situation while incompatible groups exhibited higher stress levels. Junior-led groups exhibited higher stress than senior-led groups. Three person groups had higher stress than two person groups except when the leadership of the group was a senior officer (Smith, 1972).

These results tend to confirm the idea that the structural aspects of a crowding situation affects the stress associated with the situation. As with noise, stress levels also appear to be influenced by the perception of the involved individuals as to whether or not the situation can be either changed or avoided. Studies indicates the people in crowded multiple family living situations where the dwelling is on or above the sixth floor exhibit higher incidents of mental illness and hostility than individuals in the same crowding circumstances whose dwellings are located on the fifth or lower floors. It has been concluded that the inconvience of leaving the dwelling limits the ability to develop alternatives to being subjected to the crowding situation (such as going out whenever one feels stressed) and therefore the effects of the crowding are more intensely perceived (Epstine, 1982).

The effects of both noise and crowding are essentially

to decrease an individual's privacy. Privacy is here being defined as a function of control over the frequency, intensity and occurrence of interaction, particularly social interaction. The loss of privacy creates stress in individuals. In fact it has been shown that the threat or actual decrease in a person's privacy invokes the "fight or flight" reaction. The creation of barriers, either physical or social, to limit interaction is a primary coping mechanism when privacy is invaded or threatened. It has also been shown that social predictability reduces (and social unpredictability increases) an individual's need for physical space. (Altman, 1975). One study that provides a clear example of the issue of social density and situation structure as they affect privacy and consequent stress levels is reported by Baum (1977). This book reports the result of a comparative study of college dormitories. The dormitories where of two types. There were traditional double-loaded corridor dorms comprised of a single long hallway with rooms entering directly onto the corridor and there were cluster suite dorms where six rooms entered into a common lounge and the lounges entered onto a common corridor. The number of students and the number of rooms were the same in both dormitories.

The study results indicate that the number of uncontrolled and unpredictable interactions were reduced in the suite situations contrasted with the corridor situation.

The stress levels of the students in the corridor dormitories was higher than the stress level of the students in the suite dormitory.

The foregoing literature dealing with the affects of noise and crowding can be summarized as follows: the need for privacy, which is the ability to control or limit interaction, increases in crowded and noisy situations and crowding is perceived as more than physical proximity. Crowding is a combination of spatial or physical factors and social density (the frequency and intensity of interactions) and the social density dimension of a crowding situation is the more important element in terms of stress reactions to crowding. As social density increases stress increases. Factors which can reduce the stress effect of crowding include physical barriers, the degree of structure in a situation and the purpose of the situation. A spatially and socially dense situation which is both unstructured and purposeless to the individual, where there are no physical barriers available to limit or channel interactions constitutes the most stressful of crowding situations. In regard to these issues there has been extensive research concerning both crowding and behavior in prisons. In the prison the effect of crowding has been assessed in a variety of ways which will be discussed subsequently.

There is a general perception that prisons are inherently violent places. The old style prison is a rural

high density fortress which fosters violence between the inmates. It is generally held that to improve this situation jails and prisons should be small, modern, single room facilities which are highly programed and reserved for violent or repeat offenders. The new generation of correctional facilities is being built with a more humane perspective and will perportedly reduce prison violence (Lerner,1984). In view of the over forty percent growth in the prison population which occurred between 1980 and 1984 and which resulted in prisons being an average of 110 percent of capacity nationally (Bureau of Justice Statistics,1985), the general perception of the violent nature of prisons would (if correct) doom the correctional systems to a period of violence and disruption. The available research on prison crowding and size does not totally agree with these perceptions. Prison size does not relate to violence and some research even suggests that violence is an inverse function of crowding. Other research suggests that small prisons are more violent than large ones. Factors found relevant to overall prison misbehavior include the security level of the facility and the facility's age. Also important is the average age of the inmate population and the inmate to staff ratio. In general, overcrowding does seem to increase both recidivism and the assault rate (as contrasted with overall violence) in prisons (Farrington,1980). Assaults were studied over a thirthy-three month period in the federal system. It

was found that inmate to inmate and inmate to staff assault (with or without weapons) in general increased as a facility became more overcrowded. The assault rate continued to increase with the percentage of population in excess of rated capacity. However, inmate to staff assault rate stopped growing at 160 percent of facility capacity and did not increase after that point. Assault in these instances is equateable to planned attacks, not just physical confrontations which comprise most prison violence (Gaes,1985). Between June 1983 and June 1984 the greatest number of deaths, assaults and disturbances occurred in medium and maximum (contrasted with minimum) security facilities. However when population density is compared across security levels no clear pattern emerges. The highest density maximum security facilities evidenced the highest rate of suicide but had a homicide rate lower than that reported in moderate density prisons (and showed the same rate as the rate in low density prisons). Moreover low density prisons produced the highest inmate to inmate assault and disturbance rate (Bureau of Justice Statistics,1986). The issue of population density does not produce a linear correlation with assault or violence. A study which used inmate to inmate stabbing and inmate assaults on staff as the measure of prison violence found that when general facility security was increased and identified violent inmates were segregated from the general population total stabbing

decreased while stabbings in the segregation unit increased. The assault rate on staff was not affected by the operational changes (Binda,1975).

The literature concerning violence and density is not as conclusive as literature relating stress and privacy. Clements (1982) concludes that stress is related to an inability to adequately control one's privacy and that when physical density factors are combined with factors relating to spatial configuration so as to prevent privacy or adequate personal space, male inmates exhibit the symptoms of stress.

A series of studies have utilized blood pressure or medical activity as a primary stress measure. D'Atri (1975) reviews the effects of imprisonment itself and of housing styles (dormitories contrasted with cells). He concludes that newly confined individuals experience an initial rise in blood pressure during the first two weeks of confinement, after this time the blood pressure readings drop back to pre-incarceration levels. After the initial reaction to being confined, increases in blood pressure readings correlate with the mode of housing being experienced. Dormitories (using this measure) generate a higher stress level than do cells. This is true even when the square feet per individual is the same and this reaction is not effected by the factor of race.

In a major study for the National Institute of Justice (McCain, 1980) the comparisons of different types of housing (cell v. dormitory) and different dormitory configurations

(open v. dividers) were reported. The conclusions of the researchers were based on the records of health unit complaints, blood pressure levels, misconduct reports and self reports and assessments by the inmate subject. The research reports that, dormitory housing of any configuration is more stressful than cell housing. There is no noticeable improvement in the effort to decrease stress levels by providing additional square footage per person above the level of fifty square feet per person in any housing mode. The research also concluded that crowding increases misconduct and that in terms of the crowding factors, social density not spatial density is the major factor to be considered. The conclusion that social density is more important than spatial density in generating stress was further demonstrated in relation to dormitory housing. It was found that dormitories which were partitioned to provide a degree of privacy (four foot high partitions between beds) generated less stress and stress related behavior than did open (unpartitioned) dormitories, even if the floor space per individual in the partitioned dormitories was less then in the unpartitioned dormitories.

Other studies have verified the finding that misconduct rates are higher in dormitory housing than in cell housing (Gaes, 1984). However, studies are not in agreement as to the effect of housing unit type on the particular act of misconduct classified as assault. Gaes (1984) reported that

cells generate less assaultive behavior than do dormitories. Yet, Atlas (1982) concludes that assault rates are not predictable based on cell type (interior v. exterior) or cells contrasted with dormitories. The major factor which effects assault rates is the security level of the individual inmates involved in the assaults. The conflicting data concerning housing unit type and assault rate does not, however, invalidate the general conclusion that total misbehavior is affected by housing unit type. (McCain, 1980)

In regard to the behavioral and stress effects of housing unit conditions, the appliers of standards have borrowed from research findings and concepts developed in relation to non-prison housing. They have applied the concepts to correctional facilities to insure that new prisons are more humane than prisons built on the model of the old Sing Sing facility. (Cohen,1980) This is done partially in an effort to reduce environmentally generated stress. One author expressed the belief that the new designs for prisons would help reduce stress by noting that the effect of solid-fronted cells (when contrasted with the traditional bar-fronted cells) is to provide the prisoner with a great deal more privacy (Gallis, 1983).

The research concerning physical environment and prison behavior related to stress can be summarized in the following way. Overcrowding is more than spatial density, it deals with personal space buffers and intrusion. Major components of the

intrusion and its stress effects include the type of intrusion and the relationship between the intruder and the subject of the intrusion (race or group affiliation) and a lack of respected teritory and clearly defined and defensible space. Overcrowding or perceived overcrowding or perceived loss of privacy leads to high stimulation levels. These levels may be reacted to either violently or illegally by people who tend to be either violent or prone to engage in illegal activity. The predictability and controlability of the prison environment by the inmate reduces the inmate's stress level. (Suedfeld, 1977)

In the area of the effect of program activity on inmate misbehavior there is limited research. However, it has been noted that monotony seems to stimulate violent and antisocial behavior, while programed activity that is meaningful to the participants or absorbing tends to reduce such behavior (Suedfeld, 1977). Further, in the working paper combining both original data and a review of research, Chapman (1981) concluded that there is some support for the notion that prison programs effect a reduction in misbehavior. This is based on the understanding that when an inmate has desirable prerequisites such as housing conditions, jobs or programs involvement and opportunities to acquire skills or status, the inmate is less likely to accrue misbehavior reports. It has also been noted that prison classification systems that include need assessment in terms of education, mental health,

vocational skills and therapeutic needs are better predictors than are systems using demographic considerations in terms of forecasting inmate problems. It has also been noted that, to effectively operate a prison program, inmate activities need to be used as part of the overall strategy to control behavior. (Rans,1983)

Beyond the effects of environmental design and program activity on the misbehavior rates of inmates, there is a body of literature concerning the characteristics of the inmate that relate to the tendency to be involved in misbehavior. These studies have utilized either self reports from inmates, the results of psychological tests taken by the subject inmates, or prison records of inmate misconduct to develop an understanding of misbehavior-associated characteristics.

In a self report study relating demographic factors to misbehavior, it is reported that prison rule breaking is associated with the inmate being young, black, a recidivist, unemployed prior to incarceration and sentenced to a long (5 years +) term of imprisonment. This study found no association with substance abuse (although it defined substance abuse as being in active treatment at the time of the study), marital status, education prior to incarceration, military service history, crime of conviction or prison experience factors such as frequency of visits or time spent out of the cell. (Goetting,1986)

In a study using the results of an assortment of

psychological measurements to assess factors relating to stress levels and consequent stress related misbehavior, the researchers identified an inverse relationship between the stress experienced during imprisonment and the size of the home community of the inmate. The study also found that recidivists (contrasted with first time inmates) experienced lower stress levels. In addition to these correlations this study confirmed that the stress level of an inmate rises during the first two weeks of incarceration and then falls during the next two week period. It also confirmed other studies which found that dormitoriess are more stressful than single cells. This study developed data which associated the attitude of guards as perceived by the inmates and the inmate perception of the level of crowding in the prison. Inmates who perceived the custodial staff as having a negative attitude towards the population also perceived the prison as being crowded. The perception of guard attitude was affected by the length of time the inmate had been incarcerated: the longer an inmate had been incarcerated the more negative the inmate considered the attitude (toward inmates) of the guards to be. (D'Atri, 1981)

A series of studies using inmate misbehavior as the dependent variable are reported by Flanagan (1983). The factors studied and their relevance are noted subsequently. The inmates age at the time of the study had a significant correlation with misbehavior if the inmate was age 25 or

younger. The inmates age at the time of incarceration had a significant correlation with misbehavior if the inmate was age 25 or younger when first incarcerated. The race of the inmate did not correlate significantly with misconduct. The results of other studies offer conflicting results in terms of this factor. Some studies do and some studies do not find race to be a significant correlate of misbehavior. The inmates pre-incarceration level of education had a significant correlation with misconduct, such that: the lower education levels were associated with higher rates of misconduct. The inmates pre-incarceration employment history had a significant correlation with misconduct, such that: an unstable employment history was associated with misbehavior. The prior criminal history of the inmate had a significant correlation with misconduct, such that: inmates with few or no prior arrests exhibited higher rates of misbehavior. The inmates history of prior incarceration had a significant association with misbehavior, such that: recidivism correlated with less misconduct. The inmates' crime of conviction had a significant association with misconduct, such that: if the inmates were convicted of murder they exhibited a lower rate of misbehavior. Inmates serving indeterminate sentences (contrasted with determinate sentences) were more likely to engage in misbehavior. Married inmates were less likely (than others) to be involved in misbehavior. Inmates with a history of drug or alcohol

abuse were more likely to misbehave. The length of an inmates' sentence appears to affect the timing of the exhibition of misbehavior. Inmates serving short sentences seem to commit most misbehavior in the middle third of their sentences. Inmates serving long (more than 5 years) sentences seem to distribute their acts of misbehavior evenly during their period of incarceration.

The studies noted above are mirrored by others with only minor variations in the reported results. It is interesting to note that the research which utilized inmate misconduct as the dependent variable has (with one exception where the sample size raises an issue as to the validity of the results) usually only produced a squared multiple correlation (with most or all of the factors noted above) of approximately 18 percent or less (Chapman, 1981). This creates a situation in which studies with a high level of confidence in their results leave over 80 percent of the variance in the rate of misconduct unexplained.

This dissertation utilized most of the variables included in the Flanigan report. The development of and the results of the research are reported in subsequent chapters.

CHAPTER THREE

METHODOLOGY

The study focused on cell front type (solid versus open) and inmate misbehavior. Specifically it investigated whether the incidence of inmate misbehavior differed in any significant way between inmates housed in solid as compared with open fronted cells. It is important to do all the same comparisons on other variables between housing unit populations in order to determine if there is a difference in the misbehavior rates based on cell front type.

SAMPLE

In order to examine the issues posed by this study, a sample was obtained based on the universe of all recorded data on all inmates in all years in the custody of the New York State Department of Correctional Services. The population was comprised of all male inmates in custody between May 1, 1984 and October 31, 1984 assigned to maximum security correctional facilities. The research sample for this study involved all inmates housed at the level "B", Maximum Security "Eastern New York Correctional Facility", located in Napanoch, New York, who were assigned to cell housing (as contrasted with dormitories) other than cells designated as either medical or disciplinary housing.

The cells in the study were designated as follows:

1) General confinement housing indicating that no special

program participation or prior behavioral history were a prerequisite for assignment (South Hall,East Wing, West Wing).

2) Prison Industry Housing: indication that inmates assigned to this housing unit were employed in a prison industries program which, compared to other prison programs, pays wages four (4) times higher than the general wage. (Block Three (B - 3)).

3) Honor block housing: indicating the residents had a better than average prior disciplinary history and were eligible for "outside pass status" permitting work assignments outside of the facilitie's secure perimeter (North Hall).

Inmate behavior as measured by involvement with and certification of guilt by the prison disciplinary mechanism (inmate misbehavior) is defined as sanctioned conduct, acts of commission or omission , as specified in the New York State department of Correctional Services "Standards of Inmate Behavior for All Institutions" (1983) rule book, which had been reported by a staff member on an "Inmate Misbehavior Report" (ticket) and adjudicated through the "Tier III" disciplinary system with a determination that the inmate did in fact violate a rule as charged. Conduct which was not noted or processed through this system or conduct so processed for which charges were dismissed are not defined as inmate misbehavior. There is no possible way for the

researcher to have any knowledge of any unreported misbehavior or to assess the validity of any dismissed charges. The records in the study were collected after the fact to preserve the nonintrusive nature of the study.

DATA COLLECTION FOR THE STUDY

The data in this study were collected at the Eastern New York Correctional Facility during the time period May through October 1984.

The subjects of the study were all inmates housed in any cell other than disciplinary or medical designated cells as of 12:01 AM on May 1,1984.

Inmates housed in disciplinary and/or medically designated cells, dormitories, annex housing and/or out of the facility on furlough, medical leave, or other type of leave which would cause them to not fulfill the conditions of both assignment to a general confinement cell and physical presence at the facility as of 12:01 AM on the study start date were excluded from this study.

The facility has five (5) housing units designations, which are classified into three sub-types as follows:

1 Honor - North Hall, closed, special.

2 Prison Industries - Block-3 (b-3), Open, special.

3 General confinement -

A - South Hall, open, general.

B - East Wing or the Wings, closed, general.

C - West Wing or the Wings, closed, general.

This allows a combination of East Wing and West Wing into a combined unit designated as "the Wings".

Thus this study in terms of experimental design (as opposed to architectural entities) contains four housing unit designations. These designations are North Hall: closed special. South Hall: open general. B-3: open special. Wings: closed general. The designations used are defined as follows: Open: Barred front cell. Closed: solid front/door cell. General: general confinement housing reflecting no program or classification. Special: designation of a housing unit as either program (B-3 prison industries) or classification (North Hall Honor) specific as to who can be housed in it.

At the start of the study the number of subjects by housing unit were: North 140, South 214, Wings, 267, B-3 288. This produced an initial study group of 909 subjects.

The study design called for data collection to last six months or until any unit (north Hall, South Hall The wings or B-3) experienced population loss equal to fifty percent of the starting population. The study was completed on October 31,1984, six months after the starting date. The population of the units at the end of the data collection phase of the study were: North 107, South 156, Wings 192, B-3 166. The ending population of the study was 621 subjects.

The procedure for eliminating a subject from the study was as follows:

1. Inmates transferred out of the cell block complex in which they were housed at the start of the study for reasons other than discipline, medical or temporary release (furlough) were dropped from the study regardless of whether the transfer was to another area of the facility, to another facility or to a form of release (Parole, Conditional Release or Maximum Expiration of Sentence).
2. Inmates transferred out of their initial housing units for medical reasons were retained in the study until completion of medical treatment and only dropped from the study if upon completion of treatment they were assigned to another housing unit.
3. Inmates involved in temporary release were continued in the study pending return to the facility and assignment to a housing unit. Those not returned to their original unit were dropped from the study.
4. Inmates involved in disciplinary proceedings who were transferred to disciplinary housing or to another facility were retained in the study if the time of confinement associated with the sentence of the disciplinary hearing was in excess of the time remaining in the study. This was the case in all such transfers during the study. No transfers between housing units, from housing units to disciplinary housing or to other facilities, which were

the result of a disciplinary hearing resulted in an inmate being dropped from the study.

SETTING OF THE STUDY

The Eastern New York Correctional Facility (Eastern) is located in the Village of Napanoch, Town of Warwarsing, County of Ulster, State of New York. It is approximately ninety miles north-west of New York City and five miles north of the Village of Ellenville. The facility is built along the banks of the old Delaware and Hudson canal at the base of the Shawangum mountains of the Catskill mountain range in a rural/farming community.

Eastern was constructed in the early eighteen-nineties. It was modeled on the Auburn design, and was expanded during both the nineteen-thirties and through the nineteen-fifties, with a continuous series of renovations both to existing structures and construction of additional non-housing facilities.

The State of New York classifies the security level of facilities at six levels Maximum A and B, Medium A and B and Minimum A and B. In brief, prisoners in Maximum A are both extremely violent and extreme escape risks, those in Maximum B are Extremely violent but less escape prone, inmates in Medium A are moderate to non violent but still very escape prone, those in Medium B are moderate to non violent and moderately escape prone, prisoners in Minimum A are nonviolent and slightly escape prone, those in Minimum B are neither violent nor escape prone. Eastern is classified as a

Maximum B. The programs at Eastern include education, vocational and academic (preliteracy through post-graduate college), industries (silkscreening, woodworking, metal fabricating), farming, lumbering and community service projects. In addition there are the standard New York State Department of Correctional Services programs of counseling, recreation, visiting, therapy programs, religious programs, family festivals, and inhouse maintence employment (foodservice, building maintance and services, and clerical services). Eastern is designated as a "full program facility". This means there are no idle or unemployed inmates or inmates new to the system awaiting classification at Eastern. The facility is (and was at the time of the study) accredited by the American Correctional Association in accordance with their "Standards for Adult Correctional Facilities".

CODING OF THE VARIABLES

The data utilized in this study were drawn from the following records: warden's cards, disciplinary reports and hearing records, housing unit rosters, school rosters, inmate locator change notices, and inmate program rosters. The Warden's cards are formatted to provide information which includes the following data: department identification number, Date received by the Department of Corrections,

Parole eligible date, conditional release eligible date, maximum expiration of sentence date, name and classification of crime of conviction, number of counts in conviction, number of prior felony convictions, consecutive or concurrent status of sentence, sentence minimum (in years, months, days), sentence maximum (in years, months, days), whether the determination of guilt was by plea or jury verdict, date of the crime(s) of conviction, location of the crime of conviction, a brief description of both the crime and the motivation for the crime as stated by the inmate at the time of reception into the state correctional system, date of arrest, date of birth, age at reception into prison system, sex, height, weight, color of hair and eyes, ethnic group (white, black, hispanic, other), religion, highest school grade attended and highest grade completed, usual occupation, dates (start and end) of last job, last wage, military service history, drug use history and drugs used with frequency of use, alcohol use history, place of birth, last address with time of residence, marital status (single, married, widow, divorced, separated, common-law, unknown) and the names of parents and number of siblings, plus the name and address of other significant relatives such as spouse and/or children.

Disciplinary records provide the following information: date of offense, hearing officer, hearing level (I, II, III), penalty and offense classification by rule(s) violated. The

penalty assessed is stated in a range from reprimand through loss of privileges to cell confinement. In addition "goodtime" (Time off a sentence for good behavior, usually one-third (1/3) of the sentence maximum) may be taken from an inmate found guilty of serious rule violations.

DATA CODING

the data from the records utilized in the study were coded as follows:

STUDY ID NUMBER: a random three digit number

HOUSING UNIT: open 0 = solid door 1 = bars
special 0 = general confinement 1 = special
00 = door, general = Wings
10 = bars, general = South hall
01 = door, special = North hall, honor block
11 = bars, special = B-3, industries' housing

COLLEGE ENROLLED: 0 = not enrolled 1 = enrolled

DATE RECEIVED IN PRISON SYSTEM: 6 digit for mo/da/yr

PAROLE ELIGIBLE: 6 digit for mo/da/yr

CONDITIONAL RELEASE ELIGIBLE: 6 digit for mo/da/yr

MAXIMUM EXPIRATION OF SENTENCE: 6 digit for mo/da/yr

COUNTS IN CONVICTION: number of counts 1 - 9 with 9 = 9 or 9+

RECIDIVISM HISTORY: 0 = not recidivist 1 = recidivist

SENTENCE MINIMUM: 6 digit for yr/mo/da

SENTENCE MAXIMUM: 6 digit for yr/mo/da
(life sentence coded 99/99/99)

DATE OF CRIME: 6 digit for mo/da/yr

SETTING OF CRIME: crime setting 0 = rural
1 = urban
2 = suburban

SUBSTANCE IN CRIME: drugs or alcohol involved in the crime
as motive, object objective or excuse

VIOLENCE INVOLVED IN CRIME: weapon or violence involved
0 = non violent crime
1 = violent crime
(arson coded 0)

DEATH RESULTING FROM CRIME: did crime cause death

0 = death not caused

1 = death caused as result

SUBJECT DATE OF BIRTH: 6 digit for mo/da/yr

AGE AT RECEPTION IN PRISON: 2 digit number for age in years

SUBJECT RACIAL CLASSIFICATION: reported race of subject

00 = white

01 = black

10 = hispanic

11 = other

SUBJECT REPORTED RELIGION: religious group membership

000 = catholic

001 = protestant

010 = Jewish

011 = Muslim

100 = other

101 = none

111 = unknown

EDUCATION PRIOR TO PRISON: highest level reported

grade attended 2 digit

grade completed 2 digit

(00 = no education

08 = eighth grade

16 = 4 year college

17 = masters degree

18 = Ph. D or M.D.)

EMPLOYMENT STATUS: reported ending date of last job

REPORTED DRUG USAGE: drug usage reported in records

00 = none

10 = marijuana only

01 = drugs other than marijuana

(heroin cocaine barbituates)

11 = marijuana plus other drugs

ALCOHOL USAGE REPORTED: reported level of regular use

0 = moderate or non use

1 = excessive use

REPORTED MARITAL STATUS: subject marital status at reception

000 = single

001 = married

010 = widow

011 = common law marriage recognized

100 = separated

101 = divorced

111 = unknown

CONVICTION FORMALITY: conviction by plea or trial

0 = plea

1 = trial verdict of guilt

ARREST DATES: 4 digit for mo/yr

LEVEL OF DISCIPLINARY HEARING: heating level (1, 2, 3)

HEARING OFFICER: abbreviation of hearing officer name

PENALTY ASSESSED: type of penalty

1 = cell confinement

2 = loss of privileges (phone etc.)

3 = confinement plus loss of privilege

4 = other (reprimand, loss of visits)

DAYS OF NONCONFINEMENT PENALTY: 3 digit number in days

DAYS OF CONFINEMENT TO CELL: 3 digit number in days

MONTHS OF GOODTIME LOST: 2 digit number in months

LOCATION OF ACT OF MISBEHAVIOR: abbreviated name

0000 = unknown/unreported

DATE OF MISCONDUCT: 4 digit number for month/day

(all misbehavior records are for the period May 1, 1984 thru October 31,1984)

TIME OF DAY OF MISBEHAVIOR: 4 digit number in military time (ex. 1:30 pm. = 1330)

DEPARTMENT RULE VIOLATED: 5 digit rule charged and affirmed

(if more than one rule involved the lowest numbered/most serious)

TOTAL NUMBER OF RULE VIOLATIONS CHARGED: 1 digit 1 - 9

9 = 9 or 9+

DRUGS OR VIOLENCE IN CHARGED MISBEHAVIOR: 1 digit number

0 = neither

1 = drugs

2 = violent

HYPOTHESIS TESTING

For the purpose of this study, "Inmate Behavior" will be defined as rule violations that result in a disciplinary hearing which produces a disposition of guilty. Further, the definition of cell front type will contrast "open fronted" cells with "closed fronted" cells. Open fronted cells are cells with a solid roof and floor, three solid walls and the wall fronting on the access corridor as being made (either entirely or at least seventy percent [70%]) of three-quarter (3/4) inch diameter metal bars, set vertically and spaced four (4) to six (6) inches apart, which function as the entrance to the cell for light and air and which contain an movable section which functions as the cell door. Closed fronted cells are cells with a solid roof and floor, two solid side walls a back wall (which is the building and cell exterior wall, containing a barred window) opposite to the wall fronting on the access corridor which is of solid construction and contains a solid door (the only view or access from the corridor into the cell, when the door is closed, being a window opening, set in the center of the door at the five [5] foot level having dimensions of approximately six [6] by eight [8] inches) .

Past research has focused (1) on the stress related behavioral effects of environmental stressors, (2) on correlates of misbehavior, and (3) on the effects of correctional programs on such misbehavior. Based on this

corpus of work the following hypotheses were formulated and tested.

HYPOTHESIS I

This hypothesis focuses on whether "closed fronted cells" (contrasted with "open fronted cells") inhibit the transmission of environmental stressors. The predicate for this hypothesis is that the occupants of closed fronted cells experience lower stress levels, and consequently engage in less stress related acting out behavior or misbehavior.

H 1 : Occupants of closed fronted cells will receive fewer and/or less serious misbehavior reports than occupants of open fronted cells.

HYPOTHESIS II

This hypothesis focuses on whether special program participation (which is jeopardized by receiving misbehavior reports) will function as a behavioral control. Inmates in the "Prison Industries Program" receive wages at least four (4) times the general prison population wage and can lose the privilege of working in industries if they receive either serious or multiple misbehavior reports .

H 2 : Inmates in the industries program housing unit (B-3) will receive fewer and/or less serious misbehavior reports than occupants of general confinement housing units .

HYPOTHESIS III

This hypothesis also focuses on whether special program participation (which is jeopardized by receiving misbehavior

reports) will function as a behavioral control. Inmates enrolled in college degree programs can loose the privilege of participation if they receive either serious or multiple misbehavior reports.

H III : Inmates in the college program will receive fewer and/or less serious misbehavior reports than the non college program inmates.

HYPOTHESIS IV

This hypothesis focuses on whether the concepts of "Labeling Theory", past history, and the "Hawthorne" effect function as behavioral controls in a prison setting.

Inmates in the "Honor Block" (North Hall) are assigned based on a past positive disciplinary history. These inmates are recognized as Honor Inmates and rewarded with extra privileges. They can loose their honor status by receiving either serious and/or multiple misbehavior reports.

H 4 : Inmates in honor housing will receive fewer and/or less serious misbehavior reports than inmates in the general prison population.

VARIABLES

The dependent variable for the testing of the hypotheses in this study is "Misbehavior Points". This is a continuous variable derived by assigning values to the following actions of the prison's disciplinary apparatus:

Misbehavior Points equal 0 indicates either no hearing or no finding of guilt.

Misbehavior Points equal 1 indicates a Tier 1 hearing for minor charges .

Misbehavior Points equal 2 indicates a Tier 2 Hearing for moderately serious charges .

Misbehavior Points equal 3 indicates a Tier 3 hearing for very serious charges .

The sum of all hearings held concerning an inmate's conduct during this study were totaled using this point scale for each hearing and the numerical sum accross all hearings became the inmate's misbehavior point score total or "Misbehavior Points" used as the dependent variable in the study hereafter referred to as "points". Thus inmates with a few serious or multiple minor misbehaviors received higher totals than did inmates with either no serious or few non-serious misbehavior reports.

The independent variables used in this study were those which were thought to relate (based on prior studies) to the rate and seriousness of inmate misbehavior . These variables can be divided into "Demographic" (age, race, religion) and "Acquired" (recidivism history, crime, education level, employment history) characteristics.

METHOD OF ANALYSIS

The statistical procedures used were both "Stepwise MAX-R" and "General Linear Model" (SAS Institute incorperated, 1985) Procedures . These were used to identify

variables that were most significantly related to misbehavior points acquired by the subjects. These variables were then further analyzed both in combination with each other utilizing a procedure called CATMOD (SAS Institute Inc. 1985) and in a "General Linear Model" procedure where in each former independent variable was treated as a dependent variable and regressed on the other independent variables to review possible interactions with other variables which had been noted as significant .

The effect of the use of both the "Stepwise MAX-R" and the "General Linear Model" procedures was to create the same statistical effect for the comparison of the test hypotheses as if the subjects had been "Matched" on all other intervening and independent variables . This created a statistical equivalent of matching all subjects on the factors of age, race, religion, prior incarceration history, crime, employment and educational history, substance abuse history and institutional program factors not part of the hypothesis being tested. This matching effect was necessitated by the fact that assignment to the housing units could not be shown to be random and was probably based in part on some of the factors being tested for. This proceedure permitted a comparison of the effect of each independant variable (cell front type or program participation) on inmate misbehavior, independent of the impact (if any) of demographic or acquired factors, and independent of any

other independent variable not involved in the test at that moment. Thus, the testing provided for each hypothesis independent variable to be permitted to independently account for behavioral variance in Misbehavior Points. The comparison groups are perfectly matched so that only the effect of the test variable is being assessed in relation to the dependent variable of misbehavior points.

Both the General Linear Model and the Stepwise procedures were used because, while they are both valid statistical tools, they often produce different results. The General Linear Model treats each independent variable as the last one to be introduced in the analysis process. It shows the effect of all variables in comparison to each other. This is done without providing the beta weight of the variables. The Stepwise procedure is a process that creates "in essence" the best fitted subset of variables being tested (without specifying the subset size) and it provides the beta weight of the tested variables. Beta weights indicate the positive or negative effect of the independent variables on the dependent variable, which is needed for certain levels of analysis. Thus, the General Linear Model provides an overview of all variables and the Stepwise procedure provides a detailed look at high effect variables.

CHAPTER FOUR

Results

In this chapter the dissertation examines the results of the analysis performed on the data concerning inmate misbehavior, prison programs, and cell front type.

The first set of tables relates all tested variables for 621 inmates to 265 incidents of misbehavior which occurred during the six month study period.

Table 1, using a General Linear Model analysis, shows the F value of 20 variables comprising 41 attributes when fully coded for Stepwise regression. The variables which produced substantial F values are: Inmate current age, Inmate age at incarceration (over or under age 25), Conviction by plea or verdict, History of prior felony conviction, Years currently incarcerated (more or less than 5 years), Drug abuse history, Religion, Current crime causing death, Combined drug and alcohol abuse history, Inmates ethnic background (race).

The variables and variable attributes utilized in the analysis and subsequently reported in Tables 1 through 17 are constructed in the following manner.

CURRENT AGE: 1 = age 25 or less;
0 = age 26 or more.

INCARCERATION AGE:	1 = age 25 or less;
	0 = age 26 or more.
MULTIPLE INDICTMENT:	1 = multiple count;
	0 = single count.
PRE-CRIME EMPLOYMENT STATUS:	1 = unemployed;
	0 = employed.
PRE-INCARCERATION LITERACY STATUS:	1 = below grade 6;
	0 = grade 6 (+).
CONVICTION BY PLEA OR VERDICT:	1 = trial verdict;
	0 = plea bargain.
CONVICTION FOR A VIOLENT CRIME:	1 = violent;
	0 = nonviolent.
PRIOR FELONY CONVICTION:	1 = yes;
	0 = none.
CRIME CAUSED DEATH:	1 = yes;
	0 = no.
ENROLLED IN PRISON COLLEGE PROGRAM:	1 = yes;
	0 = no.
MORE OR LESS THAN 5 YEARS INCARCERATED:	1 = 5 or less;
	0 = 6 or more.
HISTORY OF COMBINED DRUG; ALCOHOL ABUSE:	1 = both abused;
	0 = one or none.
HISTORY OF ALCOHOL ABUSE:	1 = yes;
	0 = no.

RACE (dummy variable):	WHITE;
	BLACK;
	HISPANIC;
	OTHER.
RELIGION (dummy variable):	CATHOLIC;
	PROTESTANT;
	JEWISH;
	MUSLIM;
	OTHER / NONE.
MARITAL STATUS (dummy variable):	SINGLE;
	MARRIED;
	WIDOW;
	COMMON-LAW;
	OTHER.
URBAN OR RURAL CRIME SETTING:	1 = urban;
	0 = non-urban.
HOUSING UNIT (dummy variable):	NORTH HALL;
	SOUTH HALL; WINGS;
	INDUSTRIES.

In the subsequent tables the number of attributes levels per variable is indicated is indicated by the column in the General Linear Model tables labeled attributes.

Table 1

D. V. = Misbehavior Points, against all predictors

General Linear Model Inmates N = 621

F value = 2.19 PR>F = 0.0001 R-Square = 0.1157

Independent Variable	attribute	F value type 3
Current age	2	3.27
Incarceration age	2	5.91
Multiple indictment	2	0.23
Pre-crime employment status	2	0.79
Pre-incarceration literacy status	2	0.19
Conviction by plea or verdict	2	3.02
Conviction for a violent crime	2	0.00
Prior felony conviction	2	9.62
Crime caused death	2	1.36
Enrolled in prison college program	2	0.00
More or less than 5 years incarcerated	2	2.01
History of combined drug; alcohol abuse	2	1.29
History of alcohol abuse	2	0.01
History of drug abuse	4	4.58
Race	4	1.04
Religion	7	1.88
Marital status	6	0.65
Urban or rural crime setting	2	0.30
More or less than 5 years to release	2	0.00
Housing unit	4	0.19

The analysis in table 1 indicates that the regression findings relating all variables to inmate misbehavior are not very meaningful. Overall, the R-square of11.57 means 11.57 percent of the variance in total misbehavior (Points) is explained, Both the F value (which indicates the significance of the analysis) and the PR>F (which indicates the confidence level in the F value) suggest a non-zero R-Square in the population. (However three of the variables produced F values of 0.00, raising the issue of co-linearity [i.e., that these variables were a linear composite of other variables in the equation.] This was addressed by using these variables as the dependant variable against all other predictors, there were no significant results. Thus, this analysis eliminated the co-linearity issue.) The variables which are the focus of this dissertation did not in this analysis produce significant F values.

The variables were then coded by the investigator (a process not necessary in the General Linear Model procedure) to accommodate a Stepwise procedure and an analysis was performed.

The best model consisted of 10 variable attributes comprising 7 variables as used in the General Linear Model and is shown in table 2. Overall 9.66% of the variance in misbehavior status is explained by the following variables / attributes; Inmate current age, Inmate incarceration age (over or under age 25), Conviction by plea or trial, History

of prior felony conviction, History of combined drug and alcohol abuse, Drug abuse history and Religion.

Table 2

D. V. = Misbehavior Points against all predictors

Stepwise Procedure Inmates N = 621

F value = 6.53 PR>F = 0.0001 R-Square = 0.0966

Independent variable	Beta + / -	F value	PR>F =
Current age	+	5.44	0.0200
Incarceration age	+	5.16	0.0234
Conviction be plea or trial	-	4.62	0.0320
Prior felony conviction	+	9.91	0.0017
Combined drug and alcohol abuse	-	3.41	0.0653
No drug abuse history	-	12.12	0.0005
Marijuana abuse history	-	10.37	0.0014
Heroin abuse history	-	9.06	0.0027
Religion protestant	+	2.26	0.1331
Religion Muslim	+	7.41	0.0067

The analysis in table 2 indicates that the regression findings relating inmate misbehavior to all variables is not very meaningful, However both the F value and the value of the PR>F suggest a nonzero R-Square in the population. This analysis clearly does not find the variables of Prison college enrollment or Housing unit to be significant and that those variables which are significant in

the analysis do not provide a substantial explanation for the variation in misbehavior state when related to overall misbehavior.

The components of Misbehavior Points, specifically Tier 1, Tier 2 and Tier 3 hearing involvement were used to replace Misbehavior Points as the dependent variable and the analysis programs were executed. these results are shown in tables 3 through 8 and the results are as follows.

Table 3 and table 4 relate to 68 incidents of Tier 1 misbehavior which occurred during the study period.

Table 3 using a General linear Model analysis shows the F value of 20 variables comprising 41 attributes.

Table 3

D. V. = Tier 1 misbehavior against all predictors

General Linear Model Inmates N = 621

F value = 1.24 PR>F = 0.1655 R-Square = 0.0690

Independent Variable	Attributes	F value type 3
Current age	2	0.48
Incarceration age	2	1.23
Multiple indictment	2	0.24
Pre-crime employment status	2	0.31
Pre-incarceration literacy status	2	0.72
Conviction by plea or verdict	2	0.38
Conviction for a violent crime	2	1.77
Prior felony conviction	2	1.31
Crime caused death	2	0.60
Enrolled in prison college program	2	2.52
More or less that 5 years incarcerated	2	1.24
History of combined drug; alcohol abuse	2	0.33
History of alcohol abuse	2	0.12
History of drug abuse	4	1.85
Race	4	1.11
Religion	7	1.56
Marital status	6	1.58
Urban or rural crime setting	2	0.07
More or less than 5 years to release	2	0.04
Housing unit	4	1.48

The Analysis in table 3 indicates that the regression findings relating all variables to Tier 1 misbehavior are not very meaningful. Overall 6.90 percent of the variance in tier 1 misbehavior is explained. It is significant that there are no F values of 0.00 produced by this dependant variable. The PR>F of 0.1655 and the low F value of 1.24 raise doubt about the significance of the overall analysis. This issue is addressed by table 4. In the analysis above the most significant F values were produced by the following variables: Incarceration age, Violent crime conviction, Prior felony conviction, Prison college enrollment, More or less than 5 years incarcerated, History of drug abuse, Race, Religion, Marital status and Housing unit.

The variables were then coded by the investigator to accommodate a stepwise procedure

The best model consisted of 5 variable attributes comprising 5 variables as used in the General Linear Model and is shown in table 4.

Table 4

D. V. = Tier 1 misbehavior against all predictors

Stepwise Procedure Inmates N = 621

F value = 3.15 PR>F = 0.0082 R-Square = 0.0249

Independent variable	Beta + / -	F value	PR>F =
Incarceration age	+	2.56	0.1100
Prison college enrollment	+	2.18	0.1406
Ancestry Spanish	-	4.79	0.0290
Housed in honor block	+	2.37	0.1240
Professed religion Jewish	+	3.09	0.7903

The analysis in table 4 indicates that the regression findings relating all variables to Tier 1 misbehavior are not very meaningful. Overall only 2.49 percent of the variance in misbehavior at the Tier 1 level is accounted for. Both the F value and the PR>F value suggest a non-zero R-Square in the population. This validates the factors in table 3 which also appear in this table. The analysis in table 4 indicates that the regression findings relating Tier 1 misbehavior to all variables does find attributes or variables of Prison college enrollment and Housing unit to be significant, as well as the attributes or variables of Incarceration age, Race and Religion.

Table 5 and table 6 relate to 136 incidents of Tier 2 misbehavior which occurred during the study period.

Table 5 using a General Linear Model analysis shows the F value of 20 variables comprising 41 attributes.

Table 5

D. V = Tier 2 misbehavior against all predictors

General Linear Model Inmates N = 621

F value = 2.19 PR>F = 0.0001 R-Square = 0.1156

Independent Variable	Attributes	F value type 3
Current age	2	4.75
Incarceration age	2	5.39
Multiple indictment	2	0.14
Pre-crime employment status	2	1.11
Pre-incarceration literacy status	2	1.02
Conviction by plea or verdict	2	4.06
Conviction for a violent crime	2	1.40
Prior felony conviction	2	4.24
Crime caused death	2	0.48
Enrolled in prison college program	2	0.04
More or less than 5 years incarcerated	2	1.82
History of combined drug; alcohol abuse	2	0.52
History of alcohol abuse	2	0.35
History of drug abuse	4	1.06
Race	4	1.08
Religion	7	2.44
Marital status	6	0.61
Urban or rural crime setting	2	2.17
More or less than 5 years to release	2	0.04
Housing unit	4	0.96

The analysis in table 5 indicates that the regression findings relating all variables to Tier 2 misbehavior are not very meaningful. Overall 11.56 percent of the variance in Tier 2 misbehavior is explained. It is significant that there are no F values of 0.00 produced by this dependant variable. Both the F value and the PR>F value suggest a non-zero R-Square in the population. In the analysis above the most significant F values were produced by the following variables: Current age, Incarceration age, Pre-crime employment status, Pre-incarceration literacy status, Conviction by plea or verdict, Conviction for a violent crime, Prior felony conviction, More or less than 5 years incarcerated, History of drug abuse, Race, Religion, Urban or rural crime setting. This analysis does not find the variables of Prison college enrollment or Housing unit to be significant.

The variables were then coded by the investigator to accommodate a Stepwise Procedure.

The best model consisted of 9 Variable attributes comprising 7 variables as used in the General Linear Model and is shown in table 6.

Table 6

D. V. = Tier 2 misbehavior against all predictors

Stepwise Procedure Inmates N = 621

F value = 6.90 PR>F = 0.0001 R-Square = 0.0923

Independent variable	Beta + /-	F value	PR>F =
Current age	+	6.58	0.0105
Incarceration age	+	6.15	0.0134
Conviction by plea or verdict	-	7.58	0.0061
Prior felony conviction	+	5.03	0.0253
Heroin abuse History	-	2.67	0.1031
Housed in Wings	-	2.69	0.1015
Professed religion Protestant	+	2.82	0.0936
Professed religion Jewish	+	4.91	0.0271
Professed religion Muslim	+	10.15	0.0015

The analysis in table 6 indicates that the regression findings relating all variables to Tier 2 misbehavior are not very meaningful. Overall only 9.23 percent of the variance in misbehavior at the Tier 2 level is accounted for. Both the F value and the PR>F value suggest a non-zero R-Square in the population. The analysis in table 6 indicates that the regression findings relating Tier 2 misbehavior to all variables does not find the variable of Prison college enrollment to be significant. However, this analysis does find the variable of Housing unit to be significant. Also,

the variables of Current age, Incarceration age, Conviction by plea or verdict, Prior felony conviction, History of drug abuse and Religion are significant.

Table 7 and table 8 relate to 61 incidents of Tier 3 misbehavior which occurred during the study period.

Table 7 using a General Linear Model analysis shows the F value of 20 variables comprising 41 attributes.

Table 7

D. V. = Tier 3 misbehavior against all predictors

General Linear Model Inmates N = 621

F value = 1.73 PR>F = 0.0065 R-Square = 0.0937

Independent Variable	Attributes	F value type 3
Current age	2	0.06
Incarceration age	2	1.19
Multiple indictment	2	0.33
Pre-crime employment status	2	0.01
Pre-incarceration literacy status	2	0.06
Conviction by plea or verdict	2	0.13
Conviction for a violent crime	2	1.31
Prior felony conviction	2	7.25
Crime caused death	2	2.37
Enrolled in prison college program	2	0.92
More or less than 5 years incarcerated	2	1.57
History of combined drug; alcohol abuse	2	0.96
History of alcohol abuse	2	0.73
History of drug abuse	4	7.13
Race	4	1.44
Religion	7	0.36
Marital status	6	1.24
Urban or rural crime setting	2	0.73
More or less than 5 years to release	2	0.17
Housing unit	4	0.72

The analysis in table 7 indicates that the regression findings relating all variables to Tier 3 misbehavior are not very meaningful. Overall 9.37 percent of the variance in Tier 3 misbehavior is explained. It is significant that there are no F values of 0.00 produced by this dependant variable. Both the F value and the PR>F value suggest a non-zero R-Square in the population. In the analysis above the most significant F values were produced by the following variables: Incarceration age, Conviction for a violent crime, Prior felony conviction, Crime caused death, More or less than 5 years incarcerated, History of drug abuse, Race and Marital status. This analysis does not find the variables of Prison college enrollment or Housing unit to be significant.

The variables were then coded by the investigator to accommodate a Stepwise Procedure.

The best model consisted of 8 variable attributes comprising 6 variables as used in the General Linear Model and is shown in table 8.

Table 8

D. V. = Tier 3 misbehavior against all predictors

Stepwise Procedure Inmates N = 621

F value = 5.66 PR>F = 0.0001 R-Square = 0.0689

Independent variable	Beta + / -	F value	PR>F =
Conviction for a violent crime	+	2.54	0.1118
Prior felony conviction	+	5.44	0.0200
History of combined drug; alcohol abuse	-	6.82	0.0092
History of no drug abuse	-	26.04	0.0001
History of marijuana abuse	-	13.66	0.0002
History of heroin abuse	-	7.98	0.0049
Ancestry Spanish	+	3.46	0.0633
Marital status common-law	+	2.87	0.0909

The analysis in table 8 indicates that the regression findings relating all variables to Tier 3 misbehavior are not very meaningful. Overall 6.89 percent of the variance in misbehavior at the Tier 3 level is accounted for. Both the F value and the PR>F value suggest a non-zero R-Square in the population. The analysis in table 8 indicates that the regression findings relating Tier 3 misbehavior to all variables does not find the variables of Prison college enrollment or Housing unit to be significant, However the following variables were significant: Conviction for a violent crime, Prior felony conviction, History of combined

drug; alcohol abuse, History of drug abuse, Race and Marital status.

The results of the analysis of all predictors against all Dependant Variables (Misbehavior Points, Tier 1 Misbehavior, Tier 2 Misbehavior, Tier 3 Misbehavior) were compiled and compared. Variables in a General Linear Model analysis which had an F value of 1.00 or greater were coded as + . Variables in a Stepwise Procedure analysis which were noted as significant were coded as a + (plus). Variables which received four or more plus indicators (+) were then included in the second series of analysis programs. Variables which did not have four plus indicators were dropped from the study. The exceptions to this procedure were the study variables of Enrollment in prison college program and Housing unit which were automatically included in the second phase analysis series. The result or this review of significance is displayed in table 9.

Table 9

Summery of Significant Variables

	Analysis Table Number							
	1	2	3	4	5	6	7	8
Independent Variable	Gen. Lin.	Stepwise	Gen. Lin.	Stepwise	Gen. Lin.	Stepwise	Gen. Lin.	Stepwise
Current age	+	+			+	+		
Incarceration age	+	+	+	+	+	+	+	
Multiple indictment								
Pre-crime employment status					+			
Pre-incarceration literacy status					+			
Conviction by plea or verdict	+	+			+	+		
Conviction for a violent crime			+		+	+	+	+
Prior felony conviction	+	+	+		+		+	+
Crime caused death	+						+	
Enrolled in prison college program			+	+				
More Or less than 5 years incarcerated	+		+		+		+	

History of combined drug; alcohol abuse	+	+						+
History of alcohol abuse								
History of drug abuse	+	+	+		+	+	+	+
Race	+		+	+	+		+	+
Religion	+	+	+	+	+	+		
Marital status			+				+	+
Urban or rural crime setting					+			
More or less than 5 years to release								
Housing unit			+	+		+		

Based on these results variables were chosen for further analysis, again using both General Linear Model and Stepwise Procedure formats. The variables which were used in the subsequent analysis were the study variables of Enrolled in prison college program and Housing unit, and the variables noted in table 9 as having repeated significance, specifically, Current age, Incarceration age, Conviction by plea or verdict, Conviction for a violent crime, Prior felony conviction, More or less than 5 years incarcerated, History of drug abuse, Race and Religion. This produced a variable listing which consisted of 11 variables as used in the General Linear Model and 20 variable attributes as used in the Stepwise Procedure analysis. With the exception of the study variables, all variables have proved significant in at

least four of the eight preceding analysis programs.

The selected variables were used in a series of General Linear Model and Stepwise Procedure analysis using the dependent variables of Total Misbehavior (Points), Tier 1 misbehavior, Tier 2 misbehavior and Tier 3 misbehavior.

The results of these analysis are presented in tables as follows;

TABLE	DEPENDENT VARIABLE	ANALYSIS PROCEDURE
10	Total Misbehavior (Points)	General Linear Model
11	Total Misbehavior (Points)	Stepwise Procedure
12	Tier 1 misbehavior	General Linear Model
13	Tier 1 misbehavior	Stepwise Procedure
14	Tier 2 misbehavior	General Linear Model
15	Tier 2 misbehavior	Stepwise Procedure
16	Tier 3 misbehavior	General Linear Model
17	Tier 3 misbehavior	Stepwise Procedure

Table 10 and table 11 relate to 265 incidents of misbehavior (all Tier 1, Tier 2, and Tier 3 misbehavior) which occurred during the study period.

Table 10 using a General Linear Model analysis shows the F value of 11 variables comprising 20 attributes.

Table 10

D. V. = Misbehavior Points against selected predictors

General Linear Model Inmates N = 621

F value = 3.06 PR>F = 0.0001 R-Square = 0.1043

Independent variable	Attributes	F value type 3
Current age	2	3.17
Incarceration age	2	6.19
Conviction by plea or verdict	2	3.22
Conviction for a violent crime	2	0.05
Prior felony conviction	2	8.87
Enrolled in prison college program	2	0.00
History of drug abuse	4	1.11
Race	4	3.94
Religion	7	0.75
More / less than 5 years incarcerated	2	1.93
Housing unit	4	0.26

The analysis in table 10 shows that against the total misbehavior variable Points the regression findings of the selected variables are not very meaningful. Overall 10.43 percent of the variance in total misbehavior is explained. Both the F value and the PR>F value suggest a non-zero R-Square in the population. The variables which produced substantial F value in this analysis are: Current age, Incarceration age, Conviction by plea or verdict, Prior

felony conviction, History of drug abuse, Race and More or less than 5 years incarcerated. The study variables of Housing unit and Enrolled in prison college program did not produce substantial F value and the variable of Prison college enrollment produced a significantly low F value of 0.00.

The variables were then coded by the investigator to accommodate a Stepwise Procedure. In this and all subsequent Stepwise Procedure analysis the Housing unit variable was coded in two ways. The first coding compared the North Hall, The Wings and the South Hall to Block 3. The second coding compared the North Hall, the Wings and Block 3 to the South Hall. The results of the two sets of analysis were identical in terms of the F value and the PR>F value produced for variable attributes found significant and the attributes found significant were the same, in fact the overall results were identical.

The best model consisted of 9 variable attributes comprising 6 variables as used in the General Linear Model and is shown in table 11.

Table 11

D. V. = Misbehavior Points against selected predictors

Stepwise Procedure Inmates N = 621

F value = 6.84 PR>F = 0.0001 R-Square = 0.0915

Independent variable	Beta + / -	F value	PR>F =
Current age	+	5.03	0.0253
Incarceration age	+	5.48	0.0196
Conviction by plea or verdict	-	4.58	0.0327
Prior felony conviction	+	9.81	0.0018
History of no drug abuse	-	9.62	0.0020
History of Marijuana abuse	-	9.12	0.0026
History of Heroin abuse	-	8.70	0.0033
Professed religion Protestant	+	2.02	0.1558
Professed religion Muslim	+	8.21	0.0043

The Analysis in table 11 indicates that the regression findings relating the selected variables to total misbehavior Points are not very meaningful. Overall only 9.15 percent of the variance in total misbehavior is accounted for. Both the F value and the PR>F value suggest a non-zero R-Square in the population. The study variable of Housing unit was not significant and the study variable of Prison college enrollment was not significant. The order of entry of the variables in the analysis and the value of the analysis at that step of the procedure is noted below to facilitate later discussion of the contribution of each attribute to the total explained variance.

Table 11 A

(Incremental)

STEP	PROCESS	VARIABLE	R-Square	F value	PR>F =
1	add	Current age	0.0283	18.07	0.0001
2	add	Incarceration age			
	delete	Current age			
	add	Prior felony conviction	0.0413	13.33	0.0001
3	add	Professed religion Muslim	0.0526	11.42	0.0001
4	add	Conviction by plea or verdict	0.0626	10.30	0.0001
5	add	Current age	0.0687	9.08	0.0001
6	add	History of Marijuana abuse	0.0722	7.97	0.0001
7	add	History of no drug abuse			
	delete	Conviction by plea or verdict			
	add	History of heroin abuse	0.0826	7.89	0.0001
8	add	Conviction by plea or verdict	0.0885	7.44	0.0001
9	add	Professed religion Protestant	0.0915	6.84	0.0001

Table 12 and table 13 relate to 68 incidents of Tier 1 misbehavior which occurred during the study period.

Table 12 using a General Linear Model analysis shows the F value of 11 variables comprising 20 attributes.

Table 12

D. V. = Tier 1 misbehavior against selected predictors

General Linear Model Inmates N = 621

F value = 1.42 PR>F = .0992 R-Square = 0.0494

Independent variable	Attributes	F value type 3
Current age	2	0.23
Incarceration age	2	0.63
Conviction by plea or verdict	2	0.49
Conviction for a violent crime	2	1.05
Prior felony conviction	2	1.80
Enrolled in prison college program	2	2.06
History of drug abuse	4	0.48
Race	4	1.28
Religion	7	1.74
More / less than 5 years incarcerated	2	1.62
Housing unit	4	1.42

The analysis in table 12 shows that against Tier 1 misbehavior the regression findings of the selected variables are not very meaningful. Overall 4.94 percent of the variance in Tier 1 misbehavior is explained. Both the F value and the PR>F value are questionable as to the validity of the analysis as they do not fall within normally acceptable parameters for a valid analysis. The subsequent Stepwise Procedure analysis produced F values and PR>F values within acceptable parameters and validate the variables noted as significant in both analysis. The variables which did not produce substantial F value were: Current age, Incarceration age (which is significant in table 13), Conviction by plea or verdict and History of drug abuse. The variables which did produce substantial F values were: Conviction for a violent crime, Prior felony conviction, More / less than 5 years incarcerated (These three variables were not significant in the analysis reported in table 13), Enrolled in the prison college program, Race, Religion and Housing unit (all these variables were also noted as significant in table 13).

The variables were then coded by the investigator to accommodate a Stepwise Procedure.

The best model consisted of 5 variable attributes comprising 5 variables as used in the General Linear Model and is shown in table 13.

Table 13

D. V. = Tier 1 misbehavior against selected predictors

Stepwise Procedure Inmates N = 621

F value = 3.15 PR>F = 0.0082 R-Square = 0.0249

Independent variables	Beta + / -	F value	PR>F =
Incarceration age	+	2.56	0.1100
Enrolled in prison college program	+	2.18	0.1406
Ancestry Spanish	-	4.79	0.0290
professed religion Jewish	+	3.09	0.0795
Housed in North Hall	+	2.37	0.1240

The analysis in table 13 indicates that the regression findings relating the selected variables to Tier 1 misbehavior are not very meaningful. Overall only 2.49 percent of the variance in Tier 1 misbehavior is accounted for. Both the F value and the PR>F value suggest a non-zero R-Square in the population. The study variable of Housing unit was significant and the study variable of Prison college enrollment was significant. The order of entry of the variables in the analysis and the value of the analysis at that step of the procedure is noted below to facilitate later discussion of the contribution of each attribute to the total explained variance.

Table 13 A

(Incremental)

STEP	PROCESS	VARIABLE	R-Square	F value	PR>F =
1	add	Ancestry Spanish	0.0082	5.17	0.0233
2	add	Prison college enrolled	0.0131	4.10	0.0170
3	add	Professed religion Jewish			
	delete	Prison college enrolled			
	add	Incarceration age	0.0179	3.76	0.0108
4	add	Housed in North Hall	0.0215	3.39	0.0093
5	add	Prison college enrolled	0.0249	3.15	0.0082

Table 14 and table 15 relate to 136 incidents of Tier 2 misbehavior which occurred during the study period.

Table 14 using a General Linear Model analysis shows the F value of 11 variables comprising 20 variable attributes.

Table 14

D. V. = Tier 2 misbehavior against selected predictors

General Linear Model Inmates N = 621

F value = 3.07 PR>F = 0.0001 R-Square = 0.1015

Independent variable	Attributes	F value type 3
Current age	2	4.90
Incarceration age	2	6.97
Conviction by plea or verdict	2	5.10
Conviction for a violent crime	2	0.89
Prior felony conviction	2	4.69
Enrolled in prison college program	2	0.09
History of drug abuse	4	0.94
Race	4	1.17
Religion	7	0.46
More / less than 5 years incarcerated	2	2.33
Housing unit	4	1.21

The analysis in table 14 shows that against Tier 2 misbehavior the regression findings of the selected variables are not very meaningful. Overall 10.15 percent of the variance in Tier 2 misbehavior is explained. Both the F value and the PR>F value suggest a non-zero R-Square in the population. The variables which produced substantial F values in this analysis are: Current age, Incarceration age, Conviction by plea or verdict, Prior felony conviction, Race

and More /less than 5 years incarcerated. The study variable Enrolled in prison college program was not significant, However, the study variable Housing unit was significant.

The variables were then coded by the investigator to accommodate a Stepwise Procedure.

The best model consisted of 9 variable attributes comprising 7 variables as used in the General Linear Model and is shown in table 15.

Table 15

D. V. Tier 2 misbehavior against selected predictors

Stepwise Procedure Inmates n = 621

F value = 6.90 PR>F = 0.0001 R-Square = 0.0923

Independent variable	Beta + / -	F value	PR>F =
Current age	+	6.58	0.0105
Incarceration age	+	6.15	0.0134
Conviction by plea or verdict	-	7.58	0.0061
Prior felony conviction	+	5.03	0.0253
History of heroin abuse	-	2.67	0.1031
Professed religion Protestant	+	2.82	0.0936
Professed religion Jewish	+	4.91	0.0271
Professed religion Muslim	+	10.15	0.0015
Housed in the Wings	-	2.69	0.1015

The analysis in table 15 indicates that the regression findings relating the selected variables to Tier 2 misbehavior are not very meaningful. Overall 9.23 percent of the variance in Tier 2 misbehavior is accounted for. Both the F value and the PR>F value suggest a non-zero R-Square in the population. The study variable of enrolled in prison college program was not significant, however, the study variable of Housing unit was significant. The order of entry of the variables in the analysis and the value of the analysis at that step of the procedure is noted below to facilitate later discussion of the contribution of each attribute to the total explained variance.

Table 15 A

(Incremental)

STEP	PROCESS	VARIABLE	R-Square	F value	PR>F =
1	add	Current age	0.0393	25.33	0.0001
2	add	Professed religion Muslim	0.0507	16.51	0.0001
3	add	Conviction by plea or verdict	0.060	13.27	0.0001
4	add	Incarceration age	0.0679	11.23	0.0001
5	add	Prior felony conviction	0.0742	9.87	0.0001
6	add	Professed religion Jewish	0.0806	8.98	0.0001
7	add	Housed in the Wings	0.0844	8.08	0.0001
8	add	Professed religion Protestant	0.0883	7.41	0.0001
9	add	History of heroin abuse	0.0923	6.90	0.0001

Table 16 and table 17 relate to 61 Incidents of Tier 3 misbehavior which occurred during the study period.

Table 16 using a General Linear Model analysis shows the F value of 11 variables comprising 20 variable attributes.

Table 16

D. V. =

Tier 3 misbehavior against selected predictors

General Linear Model Inmates n = 621

F value = 1.95 PR>F = 0062 R-Square = 0.0668

Independent variable	Attributes	F value type 3
Current age	2	0.05
Incarceration age	2	0.77
Conviction by plea or verdict	2	0.01
Conviction for a violent crime	2	1.71
Prior felony conviction	2	5.00
Enrolled in prison college program	2	0.66
History of drug abuse	4	0.84
Race	4	5.96
Religion	7	1.57
More /less than 5 years incarcerated	2	0.48
Housing unit	4	0.63

The analysis in table 16 shows that against Tier 3 misbehavior the regression findings of the selected variables are not very meaningful. Overall only 6.68 percent of the variance in Tier 3 misbehavior is explained. Both the F value and the PR>F value suggest a non-zero R-Square in the population. The variables which produced substantial F values in this analysis are: Conviction for a violent

crime, Prior felony conviction, Race and Religion. The study variable enrolled in prison college program was not significant and the study variable Housing unit was not significant.

The variables were then coded by the investigator to accommodate a Stepwise Procedure.

The best model consisted of 6 variable attributes comprised of 4 variables as used in the General Linear Model and is shown in table 17.

Table 17

D. V. = Tier 3 misbehavior against selected Predictors

Stepwise Procedure Inmates N = 621

F value = 5.85 PR>F = 0.0001 R- Square = 0.0540

Independent variable	Beta + / -	F value	PR>F =
Conviction for a violent crime	+	2.28	0.1316
Prior felony conviction	+	5.94	0.0151
History of no drug abuse	-	19.50	0.0001
History of Marijuana abuse	-	11.78	0.0006
History of heroin abuse	-	6.57	0.0106
Ancestry Spanish	+	4.00	0.0459

The analysis in table 17 indicates that the regression

findings relating the selected variables to Tier 3 misbehavior are not very meaningful. Overall only 5.40 percent of the variance in Tier 3 misbehavior is accounted for. Both the F value and the PR>F value suggest a non-zero R-Square in the population. The study variable of Prison college enrollment was not significant and the study variable of Housing unit was not significant. The order of entry of the variables in the analysis and the value of the analysis at that step of the procedure is noted below to facilitate later discussion of the contribution of each attribute to the total explained variance.

Table 17 A

(Incremental)

STEP	PROCESS	VARIABLE	R-Square	F value	PR>F =
1	add	History on no drug abuse	0.0172	10.83	0.0011
2	add	History of Marijuana Abuse	0.0282	8.97	0.0001
3	add	History of heroin abuse	0.0358	7.64	0.0001
4	add	Prior felony conviction	0.0441	7.12	0.0001
5	add	Ancestry Spanish	0.0505	6.55	0.0001
6	add	Convicted for a violent crime	0.0540	5.85	0.0001

Additional data analysis procedures including a concatenation by month and fundamental category analysis were utilized without providing any additional relevant results.

CHAPTER FIVE

This chapter, divided into two parts, discussed and summarizes the findings of this study based on inmate misbehavior reports over a six month period. The first part deals with the Hypotheses related to cell front type and prison program participation. The second part deals with individual and situational characteristics associated with misbehavior in prison.

Discussion 1

This part of the discussion will focus on the hypothesis set forth in the Methodology section of this dissertation and will analyze the results in the regression tables as they are related to each of the hypotheses.

Prior to discussing specific hypotheses it is important to review the results of table 9. The following chart illustrates the change in F value and R-Square that resulted from the deletion of variables to develop the selected variables used in the second stage of the analysis in chapter four. Tables 1 through 8 utilized all variables where as Tables 10 through 17 utilized the selected variables developed through the factoring shown in Table 9.

Table 18

TABLE NUMBER		F value	R-Square	D. V. =	Procedure
all	1	2.19	0.1157		
selected	10	3.06	0.1043	Points	Gen. Lin
difference + / -		+	- 0.0114		
	2	6.53	0.0966		
	11	9.66	0.0915	Points	Stepwise
difference + / -		+	- 0.0051		
	3	1.24	0.0690		
	12	1.42	0.0494	Tier 1	Gen. Lin.
difference + / -		+	- 0.0106		
	4	3.15	0.0249		
	13	3.15	0.0249	Tier 1	Stepwise
difference + / -		0	0.0000		
	5	2.19	0.1156		
	14	3.07	0.1015	Tier 2	Gen. Lin.
difference + / -		+	0.0141		
	6	6.90	0.0923		
	15	6.90	0.0923	Tier 2	Stepwise
difference + / -		0	0.0000		
	7	1.73	0.0937		
	16	1.95	0.0668	Tier 3	Gen. Lin.
difference + / -		+	0.0269		
	8	5.66	0.0689		
	17	5.85	0.0540	Tier 3	Stepwise
difference + / -		+	- 0.0149		

AS can be seen from the above chart, in all cases the deletion of variables (to produce the selected variables used in the second stage analysis) resulted in either maintaining or increasing the F value of the analysis.

In each case where the F value remained the same, the value of the R-Square also remained the same. This clearly indicates that in the procedure, against the specific dependent variable, the deleted independent variables had contributed nothing to the analysis.

The comparisons where the R-square value decreased were those in which there was a substantial increase in the F value of the analysis. This indicates that while the deleted variables contributed a small part of the explanatory power of the analysis, they did so at the cost of the certainty of the significance of the analysis and, thus, the deletions are justified and validated by the increased confidence in the resulting percentage of variance accounted for. These deletions created loss of R-Square which in the General Linear Model Procedure was 1.114 percent against the Misbehavior Points dependent variable, 1.06 percent against the Tier 1 dependant variable, 1.41 percent against the Tier 2 dependent variable and 2.69 percent against Tier 3 dependent variable. With the exception of the Tier 3 dependent variable the losses in the Stepwise Procedure was not as large as one percent. The Tier 3 dependent variable loss in the Stepwise Procedure was 1.49 percent or about

twenty percent of the variance explained. The overall minimal loss of explanatory power, however, validates the deletion procedure used.

The first Hypothesis that was tested deals with inmate misbehavior and cell front type, it proposes that:
H 1: Occupants of closed fronted cells will receive fewer and or less serious misbehavior reports than occupants of open fronted (bar fronted) cells.

The analysis conducted tested for the Null hypothesis that: there will be no difference in the misbehavior reports received by the occupants of the different cell front types.

When one views Table 1 and Table 2, one finds that the results of the statistical analysis indicate that there is no significant difference in the misbehavior status of the different housing unit designations. This indicates that cell front type is not a significant factor in the overall effect of total inmate misbehavior as measured by Misbehavior Points or the sum of all hearing levels for charged and validated misbehavior by the inmate during the six month study period.

This validation of the Null hypothesis is not consistent throughout the components of the dependent variable Points.

When one views Table 3 and Table 4 one finds that the results of the statistical analysis indicate that the factor of cell front type does produce results that indicate a significant effect in both the General Linear Model and the Stepwise Procedure (General Linear Model, Housing unit F

value = 1.48 and Stepwise Procedure, Housed in North Hall F value = 2.37). This indicates that cell front type is a significant factor in the Tier 1 (minor) misbehavior status of the subjects, although a determination as to confounding factors of program will be addressed in the secondary analysis which may reduce the significance of this statistic in terms of the current hypothesis.

When one views Table 5 and Table 6 one finds that there is a mixed result in terms of the significance of cell front type in the effect of this variable on Tier 2 (mid-range) misbehavior. In the General Linear Model analysis, the variable Housing unit produced an F value below the study determined threshold of significance of 1.00 (Housing unit F value = 0.96) which indicates a lack of significant effect on misbehavior at the Tier 2 level. However, the results of the Stepwise Procedure analysis indicate that the variable attribute, Housed in Wings, was significant in the analysis of Tier 2 misbehavior (Housed in Wings F value = 2.69).

When one views Table 7 and Table 8 one finds that the result of the statistical analysis indicates that there is no significant difference in the Tier 3 (Major) misbehavior status of the occupants if the various housing units in the study. This indicates that cell front type is not a significant factor in this level of misbehavior as measured by either a General Linear Model or a Stepwise Procedure analysis.

The results displayed in Table 10 thru Table 17 which utilized selected rather than all independent variable predictors are discussed below.

When one views Table 10 and Table 11 one finds that, as in Table 1 and Table 2, the effect of the cell front type variables when measured against the aggregate of all misbehavior (Points) is not significant in either the General Linear Model or the Stepwise Procedure analysis.

When one views Table 12 and Table 13 the results noted are similar to those in Table 3 and Table 4, in that The Variable Housing unit in the General Linear Model (Housing unit F value = 1.42) and the variable attribute, Housed in North hall, in the Stepwise Procedure (F value = 2.37) do show a significant result.

When one views Table 14 and Table 15 which relate to Tier 2 (mid-range) misbehavior and which correspond to Table 5 and Table 6 one finds that the results of the latter tables indicate significance for the variable of Housing unit in both the General Linear Model (Housing unit F value = 1.21) and the Stepwise Procedure analyses (Housed in Wings F value = 2.69) which is different in that with the selected variables (contrasted with all variables) this variable is significant in the General Linear Model and not just the Stepwise Procedure.

A review of Table 16 and Table 17 shows results equivalent to Table 7 and Table 8 in that, the variable

Housing unit is not noted as producing a significant result.

The subsequent discussion will focus on Tables 11, 13, 15 and 17. These are the selected variable tables utilizing the Stepwise Procedure analysis. This series of tables provides the most focused and specific analysis of variable effect and variable attributes.

Table 11 relates total misbehavior (D. V. = Points) to the Stepwise processed selected variables. It has an F value of 6.84 and explains 9.15 percent of the variance in overall misbehavior. The variable factors relating to housing unit do not have significance in this analysis.

Table 13 relates Tier 1 (minor) misbehavior to the selected variables. Table 13 has an F value of 3.15 and accounts for 2.49 percent of the variance in misbehavior. In the analysis the variable attribute Housed in North Hall (Honor Block) contributes .357 percent of the explanation of variance based on the increase of R- Square at the process step entry point of the variable attribute in the analysis. Since, overall, approximately 2.5 percent of the variance is explained, this variable attribute can be said to contribute 16 percent of the explanation of behavior.

However, in view of the fact that the variable attribute Housed in North Hall is a compound variable factor reflecting two related hypotheses elements, (cell front type and prison program, specifically Honor Block Housing) and in view of the fact that the clearly delineated variable attribute for cell

front type, Housed in the Wings and Housed in South Hall did not produce a result in the analysis, it is a required conclusion, based on variable attribute delineation, that, cell front type is not shown to have an effect on Tier 1 misbehavior.

Table 15 relates Tier 2 (mid-range) misbehavior to the selected predictors. Table 15 has an F value of 6.90 and accounts for 9.23 percent of the variance in behavior. In this analysis the variable attribute Housed in Wings contributes .377 percent of the explanation of the variance, based upon the increase in R-Square at the point of entry of the variable attribute in the analysis process. The variable attribute in the analysis has a negative (-) beta sign which indicates that the variable attribute (Constructed to indicate positive if it contributes toward the behavior) is a contraindicator of the behavior. In essence, the variable attribute accounts for not participating in the behavior. Since, approximately 9.2 percent of the behavioral variance is explained by this analysis, this variable attribute can be said to contribute 4 percent of the explanation of behavioral variance. The variable attribute, Housed in Wings is constructed to relate to the issue of cell front type only, with no other hypothesis designations or implications. Consequently, the appearance of the variable attribute Housed in Wings as a significant variable validates, in terms of Tier 2 misbehavior, the hypothesis that cell front type has

an effect on behavior by rejecting the null hypothesis that the Housing unit attributes would not be significant in the explanation of behavioral variance.

It is quite obvious that with the minimum of behavioral variance explained by all predictors, as relates to any and all levels of behavior and with the minimal percentage of explanation contributed by this variable to the specified level of behavior, this validation of the hypothesis is not meaningful in terms of an overall behavioral explanation.

The miniscule level of the explanatory power aside, however, the negative beta weight of the variable attribute Housed in Wings indicates that confinement in closed fronted cells is a factor which tends to decrease misbehavior at the Tier 2 level. This is a direct confirmation of the study hypothesis.

It is important to note that Tier 2 misbehavior is not the kind of activity which is either facilitated or concealed by the level of privacy afforded by a solid-fronted cell. In fact, this type of behavior rarely occurs inside the cell itself, rather, it occurs in the public areas of the prison.

Table 17 relates Tier 3 (major) misbehavior to the selected predictors. Table 17 has an F value of 5.85 and explains 5.40 percent of the variance in misbehavior status. In this analysis no variable factor relating to cell front type was found to be a contributor to the analysis at the point where the validity of the analysis was assured. The

variable attribute Housed in North Hall was introduced in the step immediately subsequent to the step reported in Table 17 and the Beta of the factor was negative. However, a strict statistical analysis rejects consideration of this step. Therefore, the null hypothesis that cell front type has no effect on inmate misbehavior is confirmed at the Tier 3 misbehavior level.

A summary of the analysis relating to the hypothesis that closed fronted cells will produce less or less serious misbehavior than open (bar) fronted cells shows the following results. In terms of total misbehavior (Points) the null hypothesis is confirmed. In terms of Tier 1 (minor) misbehavior the null hypothesis is confirmed. In terms of Tier 2 (mid-range) misbehavior the null hypothesis is rejected. Further analysis of Tier 2 misbehavior indicates that the negative Beta weight of the variable attribute Housed in Wings fully complies with and confirms the hypothesis, but the amount of variance which is explained is so small that the confirmation of the hypothesis at this level of misbehavior is not of major importance. In terms of Tier 3 (major) misbehavior the null hypothesis is confirmed.

Therefore, the Hypothesis that inmates housed in closed fronted cells will engage in less (or less serious) misbehavior is confirmed. The confirmation relates only to tier 2 (mid-range) misbehavior and the percentage of variance explained is extremely miniscule and therefore not very

meaningful. However the hypothesis is in part (at one level of misbehavior) confirmed.

The next hypothesis tested deals with inmate misbehavior and special program participation, specifically prison industries. The hypothesis states that:

H 2: Inmates employed in Prison Industries programs (housed in the housing unit designated as Block-3 or B-3) will receive fewer and or less serious misbehavior reports than non industries inmates.

This was tested by attempting to reject the Null Hypothesis that: Inmates housed in the Industries housing unit will not exhibit a significant difference in behavior from inmates housed in other housing units.

When one views Table 1 and Table 2 one finds that the results of the statistical analysis indicate there is no significant difference in the misbehavior status of occupants of industries housing as contrasted with nonindustrial housing. This indicates that industry program participation is not a significant factor in the overall effect of misbehavior Points.

Table 3 which relates to Tier 1 misbehavior indicates that Housing unit is a significant factor. However, Table 4 defines this Housing unit attribute as Housed in North Hall versus elsewhere (Honor Block Housing) not Housed in Industries versus elsewhere.

Table 5 does not indicate Housing unit as significant in

Tier 2 misbehavior in the General Linear Model analysis. Table 6 (the Stepwise Procedure analysis of Tier 2 misbehavior) indicates that the Housing unit attribute Housed in Wings versus elsewhere is significant not the attribute factor relating to Industries housing versus elsewhere.

Neither Table 7 nor Table 8 indicate that Housing unit or any Housing unit attribute are of significance in relation to Tier 3 (major) misbehavior.

Tables 10 through 17 provide the same analysis as the preceding tables in that the variable attribute Housed in Industries is not significant in any selected variable analysis.

Therefore, The null hypothesis that prison industries program participation does not effect involvement in sanctioned misbehavior is validated, and the hypothesis that prison industries program participation will result in less and/or less serious misbehavior when contrasted with nonindustrial participation is rejected.

The third study hypothesis to be tested relates sanctioned inmate misbehavior and special program participation, specifically, enrollment in the prison college program. The hypothesis can be stated as follows:
H 3 : Inmates enrolled in the prison the prison college program will receive fewer and or less serious misbehavior reports than non college program inmates.

When one views Table 1 and Table 2 one finds that

statistical analysis of the dependent variable Points indicates that there is no significant difference between college and non college program inmates.

Table 3 and table four indicate that in terms of minor misbehavior (Tier 1) the variable enrolled in prison college program is a significant factor. Table 4 has an F value of 3.15 and an R-Square of 0.0249 in the analysis the Beta sign of the college variable is (+) positive.

Table 5 and Table 6 which reference Tier 2 (mid-range) misbehavior indicate that college enrollment is not a significant behavioral factor.

Table 7 and Table 8 which reference Tier 3 (major) misbehavior do not indicate that prison college enrollment is a factor that is significant.

In the selected variable regressions (Table 10 through Table 17) the results are the following.

Table 10 and Table 11 mirror Table 1 and Table 2 in that the prison college enrollment variable is not significant.

The results in Table 12 and Table 13 are the same in terms of Prison college enrollment as in Table 3 and Table 4. Specifically Table 13 introduces the variable of Prison college enrolled in the analysis series st process step 2 with an F value of 4.10 and an R-Square of 0.0131 which is an increase of 0.0029 or approximately .5 percent of the variance explained in the analysis. Subsequently, this factor is deleted at process step 3 and reintroduced at process step

5. In process step 5 the R-Square increase is 0.0034. In all steps of the analysis the Beta sign of the variable is (+) positive, indicating that the factor contributes toward participation in the misbehavior rather than being a contraindicator of such behavior. This is a direct contradiction of the hypothesis that this factor will reduce misbehavior involvement. It is to be noted that this variable contributes approximately 20 percent of the total explanation of variance accounted for. It is therefore a significant factor in the analysis however, since the analysis accounts for only two and one-half (2 1/2) percent of the variance in misbehavior at the Tier 1 level the explanation is not over all very meaningful.

Table 14 and Table 15 do not indicate that the prison college enrollment is of significance in the analysis of Tier 2 (mid-range) misbehavior.

Table 16 and Table 17 do not indicate that the prison college enrollment is of significance in the analysis of Tier 3 (major) misbehavior.

Thus Enrollment in prison college program is not a significant factor in the analysis of variance in misbehavior in terms of the dependent variables of Points (overall), Tier 2 (mid-range) and Tier 3 (major) misbehavior. Prison college enrollment is a significant variable in the analysis of Tier 1 (minor) misbehavior.

The variable was constructed to show effect an in such a

way that if the effect was negative the Beta sign in the Stepwise Procedure analysis would be (-) negative. In the analysis in table 4 and Table 13 The Beta sign of the variable is positive indicating that enrollment in the prison college program is a factor in increased misbehavior at the Tier 1 level. Therefore the null hypothesis that: Prison college enrollment will not reduce involvement in sanctioned misbehavior, is validated, in terms of Tier 1 behavior since, such enrollment tends to increase such involvement. Thus, at all levels of misbehavior college enrollment is not a contraindicator of misbehavior.

The fourth and last hypothesis tested deals with sanctioned inmate misbehavior and program participation, specifically Honor block Housing Programs. The hypothesis is stated as follows.

H 4: Inmates in Honor Block housing will receive fewer and or less serious misbehavior reports than non honor block housing inmates. This hypothesis was tested by attempting to reject the null hypothesis that: There will be no difference in significant negative involvement in disciplinary hearings between inmates housed in North Hall (honor housing) and the inmates housed in other housing units in the study.

When one views Table 1 and Table 2 one finds that no variable or variable attribute is a significant contributor to the analysis of variance of total misbehavior (Points).

In Table 3 and Table 4 Housing unit attributes are noted

as significant, and in Table 4 the variable attribute that is noted as significant is Housed in North Hall versus elsewhere.

In Table 5 Housing unit is not significant but the housing unit attribute Housed in the Wings is significant in Table 6 .

Table 7 and Table 8 indicate that Housing unit or attributes of this variable are not significant in the analysis.

Therefore, in the analysis of all predictors the only level of behavior at which the Honor Block variable has an effect is Tier 1 (minor) misbehavior.

The remainder of the discussion will focus on tables 11, 13, 15 and 17 which are the selected variable analysis utilizing the Stepwise Procedure analysis.

Table 11 indicates that in terms of total misbehavior (Points) the variable attribute Housed in North Hall is not significant.

Table 15 indicates that in terms of Tier 2 (mid-range) misbehavior the variable attribute Housed in North Hall is not significant.

Table 17 indicates that in terms of Tier 3 (major) misbehavior the variable attribute Housed in North Hall is not significant.

Table 13, however, indicates that in terms of Tier 1 (minor) misbehavior the variable attribute Housed in North

Hall is significant. These analyses are compatible with all previous tables analyzed in terms of this variable attribute.

Thus in terms of Honor Housing the null hypothesis, that: Honor housing does not effect behavior, is confirmed in terms of Total Misbehavior, Tier 2 and Tier 3 misbehavior.

Tier 1 misbehavior is analyzed in Table 13, which indicated that the variable attribute Housed in North Hall versus elsewhere is significant in the analysis of variance. Overall Table 13 has an F value of 3.15 and an R-Square of 0.0249. The variable attribute Housed in North hall is introduced in the fifth and last valid process step of the analysis. The increase in R-Square at this step is 0.0041 this is approximately 16 percent of the total variance explained. The Beta sign of the factor is (+) positive. The positive Beta sign indicates that, residence in the honor block is a positive indicator of the tendency to be involved in Tier 1 misbehavior. This is in accord with the projection of the null hypothesis and thus confirms the null. Therefore, in all cases at all levels of misbehavior the hypothesis that inmates in the honor housing program will engage in less and or less serious misbehavior is rejected. Instead, the null is validated.

In summary, the study hypothesis projected that:

1) Closed fronted cells will reduce misbehavior.

2) Industries program participation will reduce misbehavior.

3) College program participation will reduce misbehavior.

4) Honor Housing program participation will reduce misbehavior.

In terms of the dependant variable Points (the total of all disciplinary hearings by level of hearing) or total misbehavior, no study variable had a significant effect.

In terms of Tier 3 (major) misbehavior no study variable had a significant effect.

In terms of Tier 2 (mid-range) misbehavior the only study variable attribute which had a significant effect related to Hypothesis 1. The significant variable attribute is Housed in Wings versus elsewhere. The Beta of this attribute is negative and confirms Hypothesis 1 in terms of Tier 2 level misbehavior.

In terms of Tier 1 (minor) misbehavior two variables or variable attributes, Enrollment in the Prison College Program (which relates to Hypothesis 3) and Housed in the Honor Block versus elsewhere (which relates to Hypothesis 4) are significant. However, both were associated with an increase rather than a decrease in misbehavior. Therefore, in terms of Tier 1 level misbehavior no study variables or variable attributes were significant (That is in a manner which confirms their associated hypothesis).

There is no significance attributed to the variable attribute Housed in Industries thus at all levels of misbehavior Hypothesis 2 is rejected.

Therefore, the only hypothesis to be confirmed is Hypothesis 1 which states: Inmates in Closed fronted cells will (when contrasted with inmates in open [bar] fronted cells) engage in less and or less serious misbehavior. Based on the results of this study the new statement of the hypothesis can be that: Inmates in closed fronted cells will engage in less mid-range (Tier 2) misbehavior than inmates in open (bar) fronted cells.

In reviewing the results of the Tier 1 analyses, it might be possible to speculate that the positive association of Honor Housing and College Enrollment with this low level of misbehavior is indicative of a tendency to only be involved in such misbehavior as a result of the programs of Honor housing and college. However it could also be argued that these programs are indicative of increased manipulative skills and that the noted association is the result of effective plea bargaining. In either case, the results of this finding are indicative of an area for further study.

DISCUSSION 2

The second part of the discussion of findings deals with other parts of the research findings not specifically associated with the study hypotheses.

A review of Table 9 indicates that of the 20 variables

tested only 10 variables were significant in terms of overall or total misbehavior. These were the following: Current age, Incarceration age, Conviction by plea or verdict, Prior felony conviction, Conviction of a crime that caused death, More or less than 5 years incarcerated, History of combined drug and alcohol abuse, History of drug abuse, Race and Religion. Of these variables Crimes causing death and Combined alcohol and drug abuse, upon further analysis, did not have an effect that was significant, in terms of minor and mid-range behavior and the effect on major misbehavior was not substantial enough to warrant continued exploration.

The factors of Multiple indictment, Pre-crime employment status, Pre-incarceration literacy status, History of alcohol abuse, Marital status, Urban v. rural crime setting and More or less than 5 years to release showed little or no effect in the preliminary (all predictors) analysis and were dropped from the study.

One factor, Conviction for a violent crime, which overall did not have a significant effect, was in the analysis of specific levels of a significant factor.

Thus, the factors noted as significant and used in the selected variable analysis were: Current age, Incarceration age, Conviction by plea or verdict, Conviction for a violent crime, Prior felony conviction, More or less than 5 years incarcerated, History of drug abuse, Race and Religion.

The subsequent discussion will focus on the data

presented in tables 11, 13, 15 and 17. These are the Stepwise Procedure analysis reporting tables which provide specific variable attribute and Beta weight data, thus enabling the most specific analysis. The definitional comparisons of the selected variables is as shown in Table 19 below.

Table 19

VARIABLE	ELEMENTS	+ BETA for
Current age.	Over or under age 25	under 25
Incarceration age.	before or after age 25	under 25
Conviction by plea or verdict.	Finding of guilt by trial or plea	trial
Conviction for a violent crime.	Crime of assault, murder etc.	violent
Prior felony conviction.	History of prior incarceration	recidivist
More or less than 5 years incarcerated.	Time to become institutionalized	over 5 years
History of drug abuse.	no drug use	No drug use
	Marijuana only	Soft drug use
	Heroin cocaine etc.	Hard drug use
	multiple drug use	hard + soft
Race.	Ancestry Caucasian	Caucasian
	Ancestry Black	Black
	Ancestry Spanish	Spanish
	Ancestry Other	Other

Religion.	Professed Catholic	Catholic
	Professed Protestant	Protestant
	Professed Jewish	Jewish
	Professed Muslim	Muslim
	Professed Other / none	Other / none

The elements and the consequent determinations of the cause of a Positive (+) Beta (and conversely a negative Beta) are such that the only factors requiring internal comparison structure clarification are History of drug abuse, Race and Religion. History of drug abuse compared No drug abuse, Marijuana abuse and Heroin abuse internally against Multiple drug abuse. Race compared Ancestry Caucasian, Ancestry Black and Ancestry Spanish internally against Ancestry Other. Religion compared Catholic, Protestant, Jewish and Muslim internal against Other/None. Therefore, for instance, where the attribute of History of drug abuse: Heroin abuse received a negative Beta weight it is the result of this factors comparison against the attribute of Multiple (hard and soft) drug abuse.

When one reviews Table 11 one finds that Misbehavior Points (total misbehavior by hearing level) was most effected by Current age, Incarceration age, Conviction by plea or verdict, History of prior felony conviction, History of drug abuse (No drug use history, Marijuana abuse and Heroin abuse compared to Multiple drug abuse also it must be noted that if

History of drug abuse had an effect on the behavioral level being tested it always had a negative Beta sign.) and Religion.

A review of Tables 11, 13, 15 and 17 show that the variables relevant in Table 11 were relevant in this the other tables as noted below.

Incarceration age (under 25) is a positive indicator of involvement in Total (Points) Tier 1 and Tier 2 but not Tier 3 misbehavior.

Current age (under 25) is a positive indicator if involvement in Total and Tier 2 misbehavior.

Conviction by plea (rather than by verdict) is a negative indicator of involvement in Total and Tier 2 misbehavior.

History of Prior felony conviction (Recidivism) is a positive indicator of involvement in Total, Tier 2 and Tier 3 misbehavior.

History of drug abuse (some or all classifications except multiple [hard and soft combined] abuse) are a negative indicator of involvement in Total, Tier 2 and Tier 3 misbehavior.

Religion is a positive indicator of involvement in all cases. The professed religions of Protestant and Muslim are indicators in Total and Tier 2 misbehavior. The professed religion Jewish is an indicator of involvement in Tier 1 and Tier 2 misbehavior.

Variables which are not a factor in overall behavior but which are significant in levels of behavior are noted subsequently.

Conviction for a violent felony is a positive indicator of involvement only in Tier 3 misbehavior.

Race, specifically Ancestry Spanish is an indicator in Tier 1 and Tier 3 misbehavior. In Tier 1 misbehavior it is a negative indicator and in Tier 3 misbehavior it is a positive indicator.

The variable of having more or less than five (5) years of incarceration (the institutionalization factor) while of significance in all General Linear Model analysis both with all predictors and with selected predictors was not indicated in any of the Stepwise Procedures and so while it is a relevant variable the specifics of the relevance are not discernable from the analysis systems being utilized in this study.

These results are generally, although not specifically, in line with the findings of other researchers. It is most likely that the differences noted are more a function of variable definition than due to substantive causes. However, further research in the causes of these differences is recommended.

A comparison of the results of this study and previous research, in terms of demographic and other variables which are not the primary focus of this study, is shown below.

VARIABLE (Aspect which Increases Misbehavior)	Current Study Result	Flanagan Study Result	Goetting Study Result
CURRENT AGE (Under 25)	Verifies	Verifies	Verifies
INCARCERATION AGE (Under 25)	Verifies	Verifies	Verifies
MULTIPLE INDICTMENT (More Than 1 Count)	No Effect	No Report	No Report
PRE-CRIME EMPLOYMENT (Unemployed)	No Effect	Verifies	Verifies
PRE-INCARCERATION LITERACY (Less than Grade 5)	No Effect	No Report	Verifies
TRIAL VERDICT OR PLEA (Trial verdict)	Verifies	No Report	No Report
CONVICTED FOR A VIOLENT CRIME (Violent crime)	No Effect	No Report	No Report
PRIOR FELONY CONVICTION (Recidivism)	Verifies	No Report	Verifies
CRIME CAUSED DEATH (Death Not Caused)	Verifies	Verifies	No Report
MORE OR LESS THAN 5 YEARS INCARCERATED (More than 5 Years)	Effect Not Defined	No Report	Verifies

HISTORY OF COMBINED DRUG AND ALCOHOL ABUSE (Combined Abuse)	Contradict	Verifies	No Report
HISTORY OF ALCOHOL ABUSE (Alcohol Abuse)	No Effect	Verifies	No Report
DRUG ABUSE HISTORY (Drug Abuse)	Contradict	Verifies	No Report
RACE (As Noted in Column)	SPANISH	NONWHITE	NONWHITE
RELIGION (As Noted in Column)	PROTESTANT MUSLIM	No Report	No Report
MARITAL STATUS (Single)	No Effect	Verifies	Verifies
URBAN OR RURAL CRIME SETTING (Urban Setting)	No Effect	No Report	No Report
MORE OR LESS THAN 5 YEARS TO RELEASE (More Than 5 Years)	No Effect	No Report	No Report

Variables which were not included in this study but which had an effect in prior studies are: Sentence Type: Determinate or Indeterminate (increases misbehavior) (Flanagan, 1983) all subjects in the study were serving indeterminate sentences and Sex (Male increases misbehavior) (Goetting, 1986) all subjects in the study were

males. The variable Urban or Rural Home Community (Rural increases misbehavior) (D'Atri, 1981) was mirrored by the study variable Urban or Rural Crime Setting. The variable Dorm or Cell Housing (Dorm increases misbehavior) (D'Atri, 1981) was not used as the study variable Housing Unit was a comparison of types of cell. There was no study of Inmate Perception of Guard Attitude (Perception of positive guard attitude toward inmates decreases misbehavior) (D'Atri, 1981) due to the non-intrusive design of the study.

The Instances in which this study's variables produced no effect contrasted with effects noted in other studies can be explained by the comparatively smaller over-all effect size noted in the current study. The contradictory results from this study in terms of the variables History of Combined Drug and Alcohol Abuse and Drug Abuse History are a function of variable definition differences with prior studies.

The Difference in the effect of the variable Race is also attributable to the difference in variable construction.

Instances where an effect is reported by the current study and not by prior studies (Conviction By Plea Or Verdict; Religion) are also, attributable to variable construction issues.

SUMMARY

The hypotheses of this dissertation have been tested with the results noted below.

The hypothesis that prison program involvement will reduce misbehavior had three variants which produced the following results:

Prison Industries involvement has no effect on inmate misbehavior.

Prison College program involvement is a positive (as opposed to the predicted negative) indicator of misbehavior involvement at the minor or Tier 1 level.

Prison honor block program involvement is a positive (as opposed to the predicted negative) indicator of misbehavior involvement at the minor or Tier 1 level.

The hypothesis that: the occupants of closed fronted cells contrasted to the occupants of open (bar) fronted cells will exhibit less or less serious misbehavior, was rejected in terms of the "less serious" component of the hypothesis (in that cell front type did not indicate less serious misbehavior and in fact had no effect on Total, Minor or Major misbehavior). The hypothesis was accepted (due to the rejection of the Null hypothesis) in terms of Mid-range or Tier 2 misbehavior in that closed fronted cells are a negative indicator of involvement in Tier 2 misbehavior. However the amount of variance explained by this factor is miniscule in terms of total behavior.

The overall results of this dissertation are such that when all defined factors are applied to the behavioral pattern of the subject inmates, no factor or combination of factors provided an explanation of the variance in behavior that was not essentially inconsequential. Over eighty-five (85) percent of the variance in all misbehavior is unaccounted for after these factors are considered. Therefore, the proposal of programmatic or operational recommendations by the author would not be reasonable, based upon the results of this study.

When the minimal explanatory power of the involved factors is considered, further analysis utilizing systems such as a Tobit analysis or similar enhancement technique does not appear justified or potentially beneficial and, therefore, no further analyses have been conducted.

It is important to note that the rate of overall misbehavior by the subjects in this study was approximately two-thirds (2/3) incidents of misbehavior per subject per year. When contrasted to the results of a survey of New York State inmates which recorded an average annual rate of two (2) incidents per inmate per year (Chapman, 1981), this is an exceedingly low rate of misbehavior. It is both plausible and likely that, given the fact that the facility in 1984 was undergoing an initial American Correctional Association Accreditation process (a process that is intended to and often appears to raise morale and reduce tensions and

problems in a prison) that, the accreditation process suppressed the overall misbehavior rate. It is recommended that further research, utilizing a research design similar to the one used here, be conducted to determine the effects of the accreditation process on behavior and if it is found to suppress misbehavior to conduct this study in a non accreditated facility where the potential for enhanced behavioral effects might exist.

CONCLUSION

The results of this study can be classified in three ways, hypothesis fulfilled, hypothesis rejected and hypothesis contradicted.

The results of the analysis classified as hypothesis fulfilled are those related to cell front type. The reduction of Tier 2 misbehavior exhibited by the occupants of solid fronted cells is as hypothesized. The small amount of variance accounted for by this factor is attributable to two factors. First, The small amount of variance explained by studies using misbehavior as a measure foreshadow a small effect being produced by any given variable. Second, the complexity of human behavior is such that an environmental factor such as cell front type would not be expected to provide a major explanation of variance.

The results of the analysis classified as hypothesis rejected are those related to the Industry programs. The lack of effect on behavior in this case can be explained by the

concept that the reward or benefits of program participation are not significant enough to the participants to effect behavior. The Industry program is available to all inmates and the higher pay is earned by higher productivity levels than those expected in other prison job assignments.

The results of the analysis classified as hypothesis contradicted are those related to the Honor Block and College programs.

The lack of effect on behavior as measured by Points (total misbehavior) Tier 2 misbehavior and Tier 3 misbehavior can be explained (similar to the effect in the Industry program) by the concept that the rewards of the program are not significant enough to the participants to effect behavior. The work assignments associated with the Honor Block program are usually either high stress jobs dealing with facility staff or outside work assignments which entail exposure to inclement weather. The immediacy of these factors can overshadow the potential of future Parole board consideration. The volume of work involved in the College program is very high when contrasted with other prison work assignments and the participants are not paid prison wages for time spent in college classes. These factors can combine to lessen the attractiveness of the program as the semester progresses.

The contradictory effect on behavior as measured by Tier 1 misbehavior (Honor Block and College) can be explained by a

series of concepts, these are as follows:

1) The inmates involved in these programs have developed a high degree of manipulative skill and the higher rate of Tier 1 involvement is the result of plea bargaining.
2) The participants of these programs are more closely supervised and the higher rate of Tier 1 involvement is the result of intense monitoring.
3) The lack of previous study of behavior at the minor misbehavior level has not provided a basis other than extrapolation from total behavior for viewing this behavior which may not conform to over all behavioral patterns.
4) Individuals who have been involved in major crime activity may respond to "reward/punishment" systems in a manner not consistent with either expectations or the behavior pattern of the general public.

The ability to specify factor or combination of these factors (or other factors) which will definitively explain the contradiction of the hypothesis is not available from the data developed in this study. However, further investigation of this situation is strongly recommended.

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