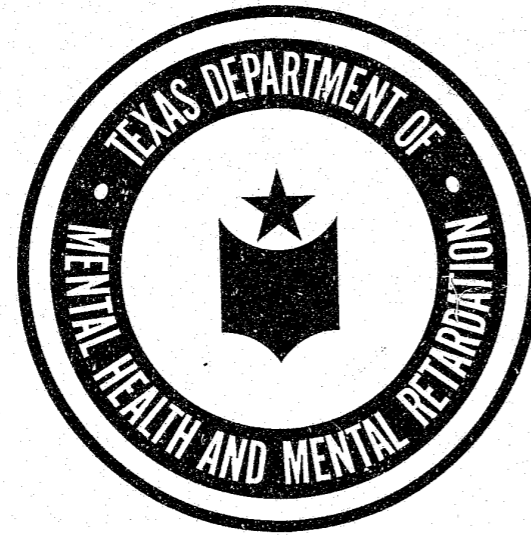


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THE FORENSIC PSYCHIATRIC PATIENT IN TEXAS:

HISTORICAL PERSPECTIVE AND NORMATIVE RESEARCH ON DANGEROUSNESS

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Texas Department of Mental Health and Mental Retardation
Austin, Texas
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Project Directors: John J. Kavanagh, M.D., Commissioner

Harold K. Dudley, Jr., M.A.,
Assistant Deputy Commissioner

Ellis M. Craig, Ph.D., Director of
Programs, MR Services

Principal Investigator: James M. Mullen, Ph.D.

Mark A. Jardina, M.A., Research Assistant
Mark Mason, M.A., Statistical Analyst
Robert Reinehr, Ph.D., Consultant
Camelia Bishop, Consultant

U.S. Department of Justice
National Institute of Justice

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DEVELOPMENT OF CRITERIA FOR THE PREDICTION OF
DANGEROUSNESS IN FORENSIC PATIENTS: A SUMMARY REPORT

James M. Mullen, Ph.D.
Principal Investigator

This is a report of the procedures and findings of a two year investigation sponsored by the Texas Department of Mental Health and Mental Retardation (TDMHMR) and the Hogg Foundation for Mental Health. The report is in summary form; detailed discussions of theoretical consideration, research procedures, and findings will be found in the appropriate appendix, as will bibliographical references.

Nearly every article in the considerable body of literature regarding dangerousness begins by pointing out that there is no generally accepted definition of the term. Each paper or study then provides a definition which will be used for that paper; usually no attempt is made to reconcile their definition with those used by other authors. The outcome is a confusing welter of papers, surveys, and studies, with each using a somewhat different definition of the topic. Generalization between articles is extremely difficult, if not impossible, with the result that no cohesive body of knowledge exists regarding the dangerousness of forensic patients. Decisions regarding treatment programs and disposition of individual cases have thus of necessity been little better than guesses. Policies have shifted with changes in administration, and program evaluation has been poor or nonexistent, since no criteria were available.

While lack of an adequate definition may seem to researchers a sufficient reason to withhold judgment regarding the dangerousness of forensic patients, the working professional cannot afford such luxury. Disposition must be made of the individual case and treatment programs must be developed with the information available, however sparse.

Further, these decision makers do not really suffer overmuch from the lack of a scholarly definition of the term "dangerous." They know, for their purposes, perfectly well what is meant by "dangerous": is this person likely to offer violence to himself or to others if placed in certain types of custody or if released?

There are other considerations but this is their overriding concern. The decision must be made in a climate very far from ideal. Conflicting statutes, overlapping authorities, and community pressures are compounded by pressures from various professional groups. A wrong decision can mean injury or death to an innocent person or grossly unfair treatment for a patient or for a whole class of patients. Decisions of such complexity and importance should be made in the light of the best possible information; it is unfair to the professional, the patient, and to society itself to require otherwise.

The purpose of this study was to investigate systematically some of the factors relating to the dangerousness of forensic psychiatric patients and to provide information which might be of use to professionals in the development of treatment programs or the disposition of individual cases.

The initial phases of this study involved a review of the professional literature regarding dangerousness (Appendix 1) and a review of the information currently available concerning forensic psychiatric patients in Texas, to include a historical perspective of statute pertaining to these patients (Appendix 2), a comparison of the characteristics of the forensic psychiatric patient population over a ten year period (Appendix 3) and an estimate of the incidence of Mentally Abnormal Offender in Texas (Appendix 4).

As a result of these surveys, several decisions were made regarding the direction and emphasis of the present research.

First, it was apparent that research in this area can quickly become outdated; patient population characteristics can change dramatically depending on changes in statutes, administrative policies and community attitudes (Appendices 1 and 2). In addition to the previously mentioned confusion in the research literature, it appeared likely that many of the older studies were no longer valid by reason of historical changes in the patient population. For these reasons, it was decided that previous studies would be considered in the development of research instru-

ments, but no attempt would be made to replicate or extend previous work by others. Comparison of present findings with previous studies would be of secondary importance; the emphasis would be on the production and analysis of new data.

Second, available information about the incidence of mentally abnormal offenders in the nonhospital population is both scanty and suspect. Difficulties with overlapping jurisdiction and widely varying administrative procedures confuse the issue and make it both difficult and expensive to expand or improve current information in this area. Research in the present study would concentrate on those individuals already identified as forensic psychiatric patients.

The first task undertaken was the collection of information descriptive of present-day forensic psychiatric patients in Texas. These would include both demographic and psychological test information. Although no real consensus exists in the literature, an attempt was made to include many of the "traditional" items and tests as well as some additional instruments for use in the later analysis. Data were collected for comparative purposes on forensic psychiatric patients, general psychiatric patients, and correctional institution inmates. A detail description of the procedures and results of this phase of the research is contained in Appendix 5.

Over half (52%) of the forensic psychiatric patients were from the six largest metropolitan counties. Houston (21%) and Dallas (14%) account for over one-third of the forensic admissions. The average age is about 30, the median age 26. Ethnically, the population is 48% Caucasian, 39% Black, and 12% Latin. The childhood and adolescent years of most appear to be unexceptional, although a significant number of individuals have been referred for emotional problems during this period.

As adults, most are deprived or substandard in social, intellectual, or cultural dimensions, as well as having a history of difficulty with the criminal

justice system. Over one-half (57%) have never married, only 17% are currently married, and only 8% were living with their spouses before admission. About 16% have less than a 7th grade education, 29% have completed grades 7-9, 45% have completed grades 10-12. Only 14% have no psychiatric diagnosis; 46% have a primary diagnosis of schizophrenia, and 10% a diagnosis of mental retardation. Most have a history of treatment for emotional difficulty; 64% have received previous inpatient care and 31% have received previous outpatient treatment. Occupationally, most patients have few job skills; 45% were unskilled laborers and 33% report that they are not in the work force. Not surprisingly, 78% of patients reported being unemployed for several months before admission.

The overall picture, then, is of a group of individuals who have shown an increasing tendency to social failure or they have grown older and had more demands made of them by society. Nearly half (48%) were still living with their families when admitted. Failure in educational and occupational areas is the norm in this group, socialization skills seem limited.

When compared to general psychiatric patients and to correctional institution inmates, the forensic patients clearly seem to be more like patients than they do like criminals. In intellectual function, occupational accomplishment, and history of emotional difficulty, the patient groups are very similar, and substantially inferior to the prisoner group. The major difference between the two psychiatric groups is the larger number of arrests shown by the forensic psychiatric patients. In this regard, they fall between the other two groups, with more arrests than general psychiatric patients but fewer than prisoners. In summary, the demographic data suggest that forensic patients resemble general psychiatric patients more than they do prisoners and that their classification as a special kind of patient (rather than as a special kind of prisoner) is appropriate.

Psychological test data were included primarily for use in a later phase of the study; an attempt to predict dangerousness in patients. Normative data obtained

from tests are of limited utility; few previous studies exist and even fewer provide any sort of profile against which to compare present results. Results in this area must be seen as very tentative, but may be found in the detailed report attached (Appendix 5). It is of interest to note that the Beta IQ for forensic patients was 85.8, for general psychiatric patients 86.8, and for prisoners 102.3. Again, it would seem that, in objective terms, the prisoners are more adequate than are either of the patient groups.

Another task of the study was an attempt to develop an actuarial model to predict or refine clinicians' judgments of dangerousness of forensic patients (Appendix 6); for researchers have suggested that the use of an actuarial method may be a practical, fruitful approach to the prediction of dangerousness. Demographic information and psychological test data were used to predict subjective judgments of dangerousness.

With a large sample of forensic psychiatric patients, the judgments of dangerousness were predicted with an overall accuracy rate of 80%. Certain variables on the Holtzman Inkblot Technique particularly proved useful as predictors of dangerousness, while additional analyses of the Holtzman data suggested some construct validity to patient groups perceived as dangerous and not dangerous. However, the criteria for identifying staff judgments of dangerousness, developed in the initial sample, failed to maintain predictive ability with a cross validation sample.

Such results are not uncommon with efforts to predict subjective judgments, be it dangerousness or diagnosis. The most obvious implication of the present exploratory study is to focus the project on the validation of subjective judgments of dangerousness against behavioral data. A partial investigation of the relationship of subjective judgments and actuarial data is underway and will be presented in a separate report. Forensic patient post confinement history is to be examined in light of subjective judgments of dangerousness, demographic information, and psychological test data.

Although methodological difficulties in this area are formidable, considerable care has been taken to adhere to scientific standards in identifying criteria for the prediction of dangerousness. The information contained in this report may present the most extensive normative study to date on forensic psychiatric patients, which, of course, needs a follow-up study of forensic patient post confinement history to determine what criteria, if any, may be legitimately used to predict dangerousness.

In order to examine possible implications of the TDMHR study, clinicians in other settings, interested in the methodology of the Texas Dangerousness Project, elected to participate in the study. These additional studies, reported in Appendix 7, were conducted in three states: through McLean Hospital and Harvard Medical School a sample of forensic psychiatric patients at a maximum security hospital near Boston; a sample of forensic patients at the Illinois Maximum Security Hospital in Chester; a forensic psychiatric outpatient center in Chicago through the Department of Psychiatry at the Rush-Presbyterian-St. Luke Medical Center; and a sample of youth offenders in a Texas Youth Council reception center.

The prediction model developed in the Texas forensic psychiatric patient study to predict staff judgments of dangerousness, was tested in each of the above samples. The results failed, as was expected, to maintain the predictive ability of the regression equation. The significance of these studies, however, is found in the normative data collected. There is marked similarity between the forensic patient groups in Texas, Illinois, and Massachusetts, which again suggest that the TDMHR project is the most extensive study to date on forensic psychiatric patients. This is particularly evident in the results of the Holtzman Inkblot Technique, a psychological instrument with a high degree of inter-scorer reliability. The Holtzman Inkblot Technique has now been standardized on a sample of some 500 forensic psychiatric patients, establishing a data base for further psychological comparisons.

Results of testing the TDMHR prediction model with a sample of Texas Youth Council offenders brought similar results as the other replication studies, particularly suggesting through the Holtzman Inkblot data a fruitful approach in studying the potentially violent juvenile offender.

Finally, an exploratory study of this nature is important for its implication in future research, and the goal of the next phase of the present project. Such research should focus on the validation of actuarial and subjective judgments of dangerousness against behavioral data. The research complies with Texas statutes (46.02) mandating the Texas Department of Mental Health and Mental Retardation to identify criteria for the determination of manifest dangerousness to assist the departmental review board members in assessing dangerousness. Although the methodological issues are formidable, the relevance of the social issues involved makes the endeavor well worthwhile.

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APPENDIX 1

THE PROBLEM OF VIOLENCE AND DANGEROUSNESS

by

James M. Mullen, Ph.D.

Introduction

In early civilizations, those individuals who violated basic ethical codes of society (e.g. murder) were literally cast out of the community into the wilderness, a fate which usually meant death. The criteria for banishment from the community, however, were seldom clear; perhaps because of the need to preserve the human species, the resolution of tension between the community and the deviant individual tended to favor the community's need to survive. If we briefly examine medieval European society, from which our American society has evolved, we also recognize the dilemma of violence and the ensuing conflict over dangerousness. The dilemma is illustrated in the opposing ways in which two medieval societies resolved the conflict of incorporating or rejecting deviant individuals in a particular violent era of history. In Venice, persons judged deviant were incorporated into the community; in fact, a community chest of funds was created to help the misfortunate. In Strausberg, however, the deviant were literally thrown out of town. Such opposing views of how society may treat its deviant members continues to exist to the present day.

As recently as twenty years ago, individuals viewed as psychotic were involuntarily incarcerated in mental hospitals, based upon a psychiatric diagnosis. With changes in involuntary commitment laws, initiated outside the mental health system, many of the same deviant group once diagnosed as psychotic are now "diagnosed" as "dangerous" and committed as involuntary patients.

Despite voluminous published research on violence and the prediction of dangerousness, we seem to know little about the matter. From any one of a dozen avenues one may approach the study, but in proceeding will soon be overwhelmed with its complexity. Biologists have identified a number of promising factors which contribute to violent behavior. Psychologists have wrestled with the problem for decades, from the early frustration-aggression hypotheses studies to the more recent theories of behaviorists. Sociologists likewise have identified an endless

number of socio-cultural components of violence. Social scientists still have not agreed upon an interdisciplinary definition of violence, but have agreed that violence is not a univariate but multivariate phenomenon.

What has been said about violence is equally true about the prediction of dangerousness. There is little agreement over the definition of dangerousness; there are serious problems of identifying criteria for determining dangerousness, as well as complications in the statistical approaches of measuring dangerousness. Since most studies of violence and dangerousness are retrospective rather than prospective, researchers use information available in various settings (hospitals, prisons) such as medical records and psychological tests; indices of violent behavior are selected from instruments never intended to be used in such a manner. Innumerable interactions between personality characteristics and environmental influences have remained inaccessible to researchers.

From another perspective, violence and the prediction of dangerousness are not just academic issues but present a serious contemporary social issue. Violent crime in the United States continues to increase. Violence is a phenomenon which often affects people adversely, threatening to destroy a core function of any society: the safety and security of its members. The issue, therefore, headlines newspapers, concerns legislatures, courts, civic and religious groups. Citizens demand immediate action; they want "something" to be done to make society safe. Citizens, then, tend to view the problem differently than academicians and professionals sensitive to individual constitutional rights. Although the state of our knowledge about violence is incomplete, even contradictory, society has surged ahead, as it were, and made far reaching practical decisions based upon inadequate information. The increased use of the dangerousness standard as the principal criterion for involuntary mental hospital commitment throughout the United States is an example. Such a standard involuntarily incarcerates a segment of society on the basis of the potential for violence. The evidence for such potential rests

upon the popular myth that mental patients as a group may be violent which is probably reinforced by findings of some studies in which questionable measures of violence have been used - for example, some studies examining the criminal record histories of mental patients as a measure for determining violence.

In the present introduction we have identified numerous problems in the study of violence and prediction of dangerousness. The present project is exploratory, i.e., a practical endeavor to identify criteria for determining the Manifest Dangerousness of TDMHR patients. We will, therefore, examine the research literature in the following manner:

- (a) Studies which have examined psychological sociological and biological variables associated with violence will be identified, in order to assist us in selecting meaningful measures of dangerousness for the present project.
- (b) Some principal problems of defining and measuring dangerousness will be discussed.
- (c) The use of criminal record histories as indicators of dangerousness of mental patients will be evaluated.
- (d) Dangerousness as the standard for involuntary commitment will be examined.

A) Biological, Psychological, Sociological Studies of Violence

Johnson (1972) in his extensive literature review identified the problem of defining violent behavior. Violence is a complex rather than a unitary process, and is under multifactored control. These factors may be psychological factors such as internal motivation and learning, biological factors, and sociological factors. Because of its complex dynamics, the term violence has defied simple definitions and sweeping generalizations. It has required analysis on many different levels from different points of view. Researchers thus have demonstrated that violence is not attributable to a single factor (Singer, 1971; Daniels, et al., 1970; Mark and Erwin, 1970, Toch, 1969).

Biological Approach

Biological studies have particularly stressed the influence on behavior by internal processes of the brain and central nervous system. Studies related to neurophysiology, genetics, and sex have, therefore, emphasized important variables associated with violent deviant behavior.

The amount of epinephrine in the blood stream, for example, has been shown to be a function of one's physiological arousal and level of excitement, as measured by vascular activity. By provoking subjects in a laboratory and then measuring blood pressure and heart rate, Hokanson (1962) demonstrated the interaction between external stimuli and internal physiology. This relationship has also been studied directly by manipulating physiological events and observing their effect on behavior. A number of studies have also demonstrated the effects of alcohol on behavior. (See Johnson, 1972, for a comprehensive discussion of this topic.)

Other researchers have shown that violence can be a function of metabolic changes, including hypoglycemia (Moyer, 1971), that can occur in the central nervous system neurotransmitters and biogenic amines.

Dysfunctions in the limbic system, where there is a high concentration of neurotransmitters and biogenic amines, have been shown to be especially related to violence. One such dysfunction associated with destructive behavior is temporal lobe epilepsy. Because the violence is episodic rather than continuous, relatively normal behavior is punctuated with occasional seizures or attacks, sometimes identifiable through abnormal EEG recordings and by the Halstead-Reitan neuropsychological test battery (Russel, 1970). Mark and Erwin (1970) have identified a number of other variables that explain such brain damage as temporal lobe epilepsy. Brain damage has been frequently shown to be associated with birth trauma, caused by maternal diseases during pregnancy, disproportions in the size of the mother's pelvis and the baby's head, prolonged reduction in blood sugar level, Rh incompatibility, head damage during delivery, overuse of pain killing drugs at birth, and

deprivation of oxygen at birth. The authors have also associated brain damage in normal children and adults with tumors, certain diseases, and trauma. Trauma commonly has resulted from automobile accidents, gunshot wounds, athletic injuries, misuse of drugs, or accidents involving physical insults to the brain. It has been illustrated that brain damage often goes unnoticed with behavior occurring in the very broad "normal" range. The authors found the effect of brain injury depended largely on the extent and location of the damage, and major behavioral effects, if any, could include impairment of sensory or perceptual abilities, muscular or motor coordination, speech, and memory.

Additionally, biological studies of genetics have suggested important variables associated with violence. Scott (1958) has demonstrated that hereditary factors are carried by complex organic molecules called genes, which act on biological processes throughout life and may affect behavior. Violence itself has not been considered an inherited trait, but factors which influence violence may be transmitted genetically. For example, genes may influence growth patterns and thereby contribute to size and strength. They may also influence hormonal activity or thresholds of aggravation of brain structures. Such factors alone may not cause an individual to be violent, but if fighting begins, one may react more quickly, fight more fiercely, and, if successful, be likely to fight again in the future. Research, although not conclusive, has also suggested a relationship between violence and the XYY chromosome (Jarvik, Klodin, and Matsuyama, 1973).

Violent behavior has also been linked to sexual characteristics in studies on the effects of testosterone (Persky, Smith, Basu, 1971; Kreuz, Rose, 1972). Moyer (1968) has demonstrated that sex and violence may be interrelated. There have also been a number of studies of women, for example, (Dalton, 1964; Moyer, 1971) which have demonstrated a disproportionately large number of crimes committed during time just before menstruation.

Psychological Approach

Psychology has approached the study of violent deviant behavior from several points of view, and in so doing has identified important variables associated with violence. Studies on the effects of social isolation, effects of early childhood experiences, the frustration aggression hypothesis studies, as well as social learning and modeling studies have all identified variables related to violence.

Although effects of social isolation on violence have primarily been animal studies, Schacter (1959) pointed out the result of partial isolation on humans by examining the effects of being an only child. Likewise Levy (1943) studied the effects of children growing up in a sheltered environment surrounded by maternal overprotection.

In studies on the effects of early life experiences, Feshbach (1970) showed that no other variable is as directly related to violent behavior as the use of physical punishment. Also a number of correlational studies have attempted to test the effects of parental punitiveness on children's violence. Hoffman (1960) rated mothers according to the severity of discipline they employed and extent to which they asserted unqualified power over their children. He found that the use of such unqualified power was significantly correlated with the child's hostility toward other children and his resistance to social influence. Likewise, Bandura and Walters (1963) studied punitive and nonpunitive fathers, and found that the sons of the former revealed more antisocial values. An important observation regarding early life experiences is that violent behavior in childhood continues in adulthood (Kagan and Moss, 1962).

Some effort has been made to relate violence to a personality trait, but without much success. Feshbach (1970) found that no single cluster of traits can be identified. However, Megargee's (1970) overcontrolled and undercontrolled hostile personality types have been related to violent crime. Others, such as Millon (1969) have attempted to describe the violent personality in terms of an active independent

behavior pattern. The violent or aggressive personality types have a low frustration tolerance and may be easily provoked into retaliation.

The relationship of learning to violence was first extensively explored in the frustration aggression research of Dollard, Doob, Miller, Mowrer, and Sears (1939) which showed that frustration may lead to violence. However, subsequent studies have tended to emphasize the role of social learning theory, especially modeling behavior, in violence. Bandura (1970) has provided a thorough discussion of the various modeling theories, which have illustrated the importance of identifying situational cues and environmental stimuli, as variables related to violent behavior.

Sociological Approach

In examining violence and other types of deviance from the sociological viewpoint, several theories have stressed the relevance of environmental variables. For example, Merton's (1949) social structure theory has accounted for deviance by pointing to the discrepancy between society's goals and the means of achieving these goals. Parson's (1951) expansion of Merton's theory has particularly viewed deviance as an attempt to reduce strain while Cohen (1955) has extended Merton's theory to further explain the juvenile delinquency of street gangs. Wolfgang and Ferracuti (1967) have particularly explored the sub-cultural elements of violent deviant behavior. Sutherland (1947) has viewed some deviant behavior as learned behavior and the product of differential association. Glaser (1956) expanded Sutherland's theory to include the relationship of reference groups and group identification on deviance. Newcomb (1950) explored the effects of negative reference groups on deviance. A common feature of sociological research on deviance has indicated the importance of examining environmental and demographic variables.

There are also a number of sociological surveys that have explored the relationship of deviance and mental illness in hospitalized patients. Goode, Hopkins, and McClure (1971) have determined a number of important variables related to the

posthospital behavior of former mental patients. Freeman and Simmons (1963) found that married mental patients, regardless of sex, were more likely than unmarried patients to remain in the community relatively free of deviant behavior. They also found that posthospital social and vocational performance was more socially acceptable among mental patients living in conjugal family settings or living alone than it was among those living with their parental or sibling families. In an earlier study, Adler (1953) found that the adjustment of mental patients released to the community was best among those who were married, followed by those whose marriages were broken by separation, divorce, or death, and least among single persons. Simmons and Freeman (1959) also found that family income was related to posthospital adjustment.

Status of Studies Relating Violence and Deviance to Mental Patients

In examining the research literature on mental illness and violence, Daniels, Gilula, and Ochberg (1970) noted several significant studies. Early reports were those of Ashley (1922), Pollock (1938), and Cohen and Freeman (1945). In 1922, as reported by Gulevich and Bourne (1970), Ashley studied 1,000 patients discharged from a state mental hospital over a ten-year period. Only twelve of these individuals were arrested, which represented an arrest rate of 1.2 percent for former mental patients. However, he did not compare his results with the general population. Pollock (1938) studied offenses committed by patients from New York State hospitals in a one-year period. He showed that patient arrest rates were fourteen times lower than those for the general population. Cohen and Freeman (1944) studied 1,676 patients who were paroled and discharged over a four-year period from the Norwich State Hospital in Connecticut. This study concluded that hospitalization apparently produced a reduction in arrest-precipitating behavior in former mental patients. However, without a control group, it could not be demonstrated that hospitalization produced a reduction in patient arrest rates. Also, as Gulevich and Bourne noted, the authors did not take into account the fact that violent

patients are retained in a hospital for long periods of time. In evaluating the impetus of these early studies, an important common feature was the establishment of a precedent of determining violence of mental patients by arrest rates.

A more recent report was that of Brill and Malzberg (1962), who studied 10,247 male patients discharged from the New York State mental hospitals over a five-year period. The authors reported that the annual arrest rate for patients was 122/10,000 as compared to 491 for the general population. They further reported that patients with arrest rates prior to hospitalization were the major offenders following discharge, and those with no previous arrests have a very low rate after discharge. They found that arrest rates among patients seemed to be associated with the same social factors as seen in the general arrested population, and that offenses diminished after the first year. From Brill and Malzberg it may be concluded, then, that the mentally ill are much less likely to engage in criminal behavior than is the general population.

Rappeport and Lassen (1964) expanded the Brill and Malzberg study. They first studied male patients over sixteen years of age discharged from all Maryland mental hospitals during 1947 and 1957. There were 708 patients from 1947 and 2,152 patients from 1957. Arrest rates for these two populations were determined for the five felonious crimes of murder, negligent manslaughter, rape, robbery, and aggravated assault. The arrest rates of the discharged mental patients both before and after hospitalization were compared with those of the general nonhospitalized population. The authors found that the criminal activity of mental patients, measured by arrest rates, was about the same as for the population at large. However, former mental patients did have a higher incidence of the crimes of rape and robbery than the general population. The authors concluded that the mental hospital experience had no definite effect on reducing the total arrest rate, but that some diagnostic groups showed a change after hospitalization: alcoholics evidenced a decrease in arrests; antisocial reactions showed a marked increase; and

schizophrenics showed no change. Alcoholics and schizophrenics counted for the largest percentage of those contributing to the data since they represented the majority of the hospitalized patients. The authors also found no significant differences in the arrest rates of the two populations in mental patients in 1947 and 1957. They interpreted this finding as suggesting that psychiatric medications, which were introduced as a new treatment technique in the decade between the first and second sample, did not have an effect on reducing assaultive behavior in mental patients.

Rappeport and Lassen (1966) reported a similar study on female patients in Maryland hospitals discharged in 1947 and 1957. They found that female patients reflected the general trend in the female community of committing more aggravated assaults per capita than male patients, particularly after hospitalization. Except for aggravated assault, there were no significant differences in the arrest rates of the two populations between the years 1947 and 1957. The authors again interpreted this to mean that the administration of psychiatric medications was not effective in controlling assaultive behavior. Arrest rates for murder and robbery were lower for female patients than for the general population, with no arrest rates in the female population for negligent manslaughter and rape. As with the male population study, alcoholics and schizophrenics account for most of the patients and, therefore, contribute a higher absolute number of arrests. In conclusion, then, Rappeport and Lassen in their two studies did not show a lower rate of arrests for mental patients, in contrast to previously mentioned studies, but rather demonstrated that male and female mental patients reflect the same trends in criminality as the population at large.

Like Rappeport, Giovannoni and Gurel (1967) did not agree that arrest rates of ex-mental patients were uniformly lower than the general population. They studied 1,274 functional psychotics admitted to twelve Veterans Administration hospitals. 1,142 were released and followed for four years from the date of admission to

ascertain the extent of socially disruptive behavior. Their findings indicated higher rates of criminal activity among ex-patients than those reported in most published studies, particularly for crimes against persons. Type of disposition was not unrelated to type of crime, and often involved rehospitalization rather than jail. Concomitant problems with alcohol were frequent in those committing disruptive acts. In their concluding comments, Gulevich and Bourne make the interesting observation that an individual with a label of mental illness is quite capable of committing any act of violence known to man but probably does not do so with any greater frequency than his neighbor in the general population who does not carry such a label.

Although mental patients may or may not perform violent deviant acts, there might be a relationship between alcoholic mental patients and violent deviant behavior. In reviewing literature relating alcohol to violence, Daniels, Gulula, and Ochberg (1970) pointed out that studies have taken two general approaches to the question. In the first, the drinking histories of those convicted of felonious acts of violence were investigated, and in the second, the criminal records of known alcoholics were examined. The authors cited examples of both. As an example of the former type, they cited a 1961 report of a California survey conducted of 2,325 new prison arrivals. Twenty-nine percent, the majority of whom had been convicted for crimes of violence, indicated that alcohol had been a major problem in their lives. Utilizing the second method, Clark, Hannigan, and Hart (1965) studied a series of 100 alcoholic felons and found a preponderance of violent crimes. The work of Wolfgang and Strom (1956) also provided evidence that alcohol and violence are related. They studied 588 homicides over a five-year period in Philadelphia, and found that alcohol was present in either the offender or the victim in sixty-four percent of the cases. Although they lacked sufficient data to make accurate retrospective diagnoses of alcoholism, the diagnosis was strongly suggested in a number of cases. Finally, the report of Haughey and Heiberg (1962) has drawn

attention to the relationship of alcohol and violence. They distinguished between alcohol as a primary factor in crime (unleashing violence in the form of assaultive behavior) and as a secondary factor (causing chronic alcoholics to act in criminal ways).

Daniels, Gilula, and Ochberg (1970) have also reported other prediction studies of violence. McDonald (1967) studied 100 consecutive threat-to-kill admissions to a Colorado hospital. After a five-year follow-up, three patients had committed homicide and four patients later committed suicide. In another study, DeLeon (1961) described what he called the "pre-assaultive" state, in which he stressed five points in evaluating an individual as a possible assaultive risk: (1) difficulty in constructively utilizing leisure time; (2) frequent frictional encounters with significant persons within the patient's emotional orbit such as wife, husband, lover; (3) conspicuous accounts of fist fights and other physical evidence of violence such as scars; (4) a penchant for guns and knives; (5) and sex (young males are at greatest risk). DeLeon placed little emphasis on the traditional psychiatric diagnosis in assessing assaultive behavior, but rather used a combination of social factors, past behavior, and gross indices of interpersonal adjustment to reach his conclusion. In a similar attempt to define predictors of violence, Kinzil (1968) compared detailed life histories of eight violent federal prisoners with six nonviolent prisoners. Distinguishing characteristics of the violent prisoners were: repeated violent behavior with little provocation, frequent necessity for forcible restraint, fighting with a weapon, carrying a weapon for prolonged periods, and a history of violence between parents.

Kozol, Boucher, Garafalo (1972) reported a ten-year study involving 592 male convicts. The authors reported stunning results, namely, that their treatment was successful in modifying the dangerous potential of ninety-four percent of the patients they recommended for discharge after treatment, and that twenty-eight percent of the patients released from treatment against medical advice subsequently

committed serious assaultive crimes. However, their predictors of violent behavior were unclear, and therefore, these findings raised more questions than they answered.

In discussing the predictors of violence, parole prediction literature has been an important source. The major techniques used in predictions of parole success was reviewed by Gottfredson (1967) and Dean and Duggan (1968) and fell into two broad categories: (1) correlation and regression-based techniques, and (2) configural analyses based on probability theory and tests of association. Both approaches to prediction have had varying degrees of success. The regression techniques require more assumptions than the configural analyses, but have provided more confident results. The two major types of regression approaches have been multiple regression analysis and discriminant function analysis.

A recent study on predicting violence in prison populations was that of Wenk, Robinson, and Smith (1972). Using elaborate case histories, current measure of mental and emotional functioning, and professional prognoses for a sample of 4,146 California Youth Authority wards, they sought to develop a classification device for estimating assaultive potential with sufficient accuracy to be useful in correction program decisions. The authors found that simply classification procedures and multivariate approaches failed to yield an operationally practical prediction instrument. Few offenders designated as members of the potentially violent subgroup actually did become violent.

The many studies cited here, originally reviewed as part of a doctoral dissertation (Mullen and Rollins, 1977) were useful in selecting possible measures of dangerousness for the present project. Since the present project was limited, however, to the information acquired by hospital clinicians (psychiatrists, psychologists, social workers) at the time of the patient's hospital admission, the TDMHR study does not include biological variables which may have influenced a patient's violent behavior.

B) The Problems of Defining and Measuring Violence

The principal question of predicting behavior, particularly violent or dangerous behavior, is how to resolve a twofold methodological problem: What is a definition of dangerousness and how is dangerous behavior to be measured? While examining the literature, Megargee (1976) has addressed both questions. First, dangerousness is not a trait which is inherent to an individual, but rather is a concept that refers to a specific kind of behavior, namely, to behavior that is potentially harmful to another person. The implication of Megargee's observation is important. No matter how dangerousness may be defined, focus on a specific kind of behavior is essential. Behavior is usually defined as the response of an individual to his environment. Dangerous behavior may be viewed as an individual's violent response to situational cues. One aspect of behavior is internal to the individual, such as his personality characteristics, while another aspect of behavior is external to the individual. Megargee had identified several traits indicative of individuals who engage in dangerous behavior. An American Psychiatric Association Task Force (1974) has identified a number of situational variables commonly associated with dangerous behavior. Some examples are the availability of a gun, and the influence of drugs or alcohol on an individual. The fact is, however, that researchers and clinicians have enormous difficulties accounting for the situational cues which contribute to dangerous behavior. Reported studies on dangerousness are examples of retrospective rather than perspective research. The studies are carried out on samples of prison inmates and hospital patients. Emphasis has been on data which may conveniently be collected while a designated violent offender is incarcerated in a hospital or prison - providing an impression, unsupported by research, that violent individuals may be easily typed as potentially violent. The situational variables which may have triggered the violent behavior for which an individual is now institutionalized, are completely ignored.

Obviously, then, there are serious conceptual problems in defining dangerousness. The study of dangerousness is an attempt to define and analyze a phenomenon that is obscure. Obscurity also characterizes the methods available to study dangerous behavior (Megargee, 1976). Methods available include the usual techniques of the research scientist: experimental design, natural observation, reconstruction of events, testing of hypotheses based on animal studies on violence, and the descriptive studies of incarcerated offenders. While it is difficult, and perhaps unethical, to contrive an experimental design to study dangerous behavior, studies employing natural observation of individuals engaged in dangerous behavior are non-existent. Although clinicians and researchers frequently attempt to assess dangerousness by reconstructing events which appeared to contribute to the dangerous behavior, it is extremely difficult to do so by accounts of events which are usually reported by untrained observers, although it is relatively easy to conduct such investigations. It is impossible, of course, to obtain directly the kind of information that is most desirable to study violent behavior - namely, the opportunity to conduct studies which may provide physiological, psychological, and sociocultural data on what is happening within the individual offender as the violent act occurs, as well as the opportunity to determine the physiological, psychological, and sociocultural situational variables which contribute to the violent act.

Finally, the problem of defining and measuring dangerousness becomes increasingly complex for another important reason: the difficulty of predicting behavior which has an extremely low base rate. Approximately seven out of every 100,000 arrests in the United States are for violent crimes. As many studies indicate, clinicians tend to over-predict dangerous behavior, ignoring the low base rate of such behavior. Clinicians may overlook the low base rate of dangerous behavior in the general population, because they evaluate the dangerousness of prison inmates and hospital patients within maximum security institutions where significantly large samples of such populations have engaged in dangerous behavior.

Clinicians may also over-predict because of societal pressures to protect the public from the possibility of violence. Another reason for the over-prediction of dangerousness is the manner in which clinicians usually go about their task: determining dangerousness as if the concept of dangerousness were some kind of extended psychiatric diagnostic category. In approaching the assessment of dangerousness through the medical model, clinicians tend to concentrate on the individual offender (examining the offender's psychiatric and psychological state, past medical and social history, and present hospital behavior), while overlooking the situational variables which contribute to dangerous behavior, the low base rate of dangerous behavior in the general population, and all the problems of defining and measuring dangerous behavior.

In view of the problems of predicting dangerousness which have been discussed here, many researchers presently recommend an actuarial approach for the determination of dangerousness as a way of improving the quality of such decisions. By considering clinical and demographic variables together statistically, along with systematic follow up regarding decisional outcomes, methods of determining dangerousness may be improved. The purpose of the present project is to develop criteria to aid decision making. It is our goal, therefore, to develop an actuarial method, as suggested by Shah (1978). In fact, his observations on the matter are important for guiding clinicians who may be appointed to Review Boards for determining dangerousness, since an actuarial model may greatly improve the reliability and consistency of Review Board decisions:

Moreover, there is no reason why information provided by actuarial tables and similar devices could not be combined with specifically identified and empirically tested clinical information and also with explicit considerations of particular setting and situational factors. Systematic follow up and feedback regarding the decisional outcomes would allow periodic revisions designed to improve overall predictive accuracy (see, e.g., Burnham, 1975; Goldberg, 1970; Gottfredson, 1975; Gottfredson, Wilkins, Hoffman & Singer, 1974). As Elstein (1976) recently noted, the fundamental value of the

actuarial approach is not in the insistence on quantification. Rather, it is in an insistence that decision rules can be made explicit and that it is most desirable to make them so. Not only would this approach facilitate the reaching of novice clinicians and evaluators, but it would greatly improve the reliability of such judgments.

Although the purpose of the present project is a practical one of developing a data based actuarial system for determining dangerousness, a final broader matter should at least be acknowledged. Studies about the dangerousness of mental patients may inadvertently promote the idea that mental patients are the most dangerous group in our society. Policy decisions which pertain to the issue of assessing dangerousness have been thoroughly explored elsewhere (Shah, 1978). It is sufficient here to simply put the present study in its appropriate framework. There are many broader considerations which must also be addressed. Some examples include the political implications of who decides who is dangerous in a democratic society, implications of depriving citizens (usually poorer people) of constitutional rights to freedom because of dangerousness, the need, therefore, to compare violent behavior of prisoners and the general population with mental patients.

C) Use of Criminal Record Histories as Indicators of Dangerousness

The present study uses the patient criminal record history as a measure of patient dangerousness. It is important, however, to critically examine the use of arrest history data in such a study, in order to appreciate some of the complexities of assessing dangerousness, and the problems of realistically examining the value of such an indicator of dangerousness so widely used by researchers. A review of the literature of arrest history data provides additional perspective on the problem of assessing dangerousness.

Examining the historical context in which arrest rate data has been used as a measure of mental patient violence or dangerousness identifies three distinct trends: Earliest studies reported that mental patients were not arrested as frequently as the general population (Ashley, 1922; Pollock, 1938; Cohen and Freeman,

1945); the studies in the 60's indicated that mental patients were arrested no more or less frequently than the general population (Brill and Malzberg, 1962; Rappeport and Lassen, 1964; Rappeport and Lassen, 1966; Giovannoni and Gurel, 1967); studies of the last decade suggest that mental patients are arrested more frequently than the general population (Sosowsky, 1978; Mullen and Rollins, 1977; Zitren, et al., 1966).

In 1922, as reported by Gulevich and Bourne (1970), Ashley studied 1,000 patients discharged from a state mental hospital over a ten-year period. Only twelve of these individuals had subsequent arrests which represented an arrest rate of only 1.2% for ex-mental patients. However, he did not compare his results with the general population. Pollock (1938) studied offenses committed by patients from New York State hospitals in a one-year period. He showed that patient arrest rates were fourteen times lower than those for the general population. Cohen and Freeman (1945) studied 1,676 patients who were paroled and discharged over a four-year period from the Norwich State Hospital in Connecticut. This study concluded that hospitalization apparently produced a reduction in arrest precipitating behavior in former mental patients. Again, there was no control group. These early studies also did not take into account the fact that violent patients are retained in a hospital for long periods of time, but they did establish the use of arrest rates as a measure of violence in mental patients. Perhaps also, arrest rate data became a popular tool for researchers because law enforcement agencies, directed by the FBI, began collecting annual statistics of crimes committed throughout the United States.

Brill and Malzberg (1962) studied 10,247 male patients discharged from the New York State mental hospitals over a five-year period. The authors reported that the annual arrest rate for patients was 122/10,000 as compared to 491 for the general population. They further reported that patients with arrest rates prior to hospitalization were the major offenders following discharge, and those with no

arrests previous to hospitalization have a very low rate after discharge. They found that arrest rates among patients seemed to be associated with the same social factors as seen in the general arrested population, and that offenses diminished after the first year. From Brill and Malzberg it was concluded, as in earlier studies, that mental patients were less violent than the general population.

A reexamination of the use of arrest rates as a measure of violence in mental patients indicated a different conclusion, however, Rappeport and Lassen (1964) expanded upon the Brill and Malzberg study. They first studied male patients over 16 years of age discharged from all Maryland mental hospitals during 1947 (N=708) and 1957 (N=2152). Arrest rates for these two populations were determined for five major felonies of murder, manslaughter, rape, robbery and aggravated assault.

The arrest rates of discharged mental patients both before and after hospitalization were compared with those of the general nonhospitalized population. The authors found that the criminal activity of mental patients, measured by arrest rates, was about the same as for the population at large. However, former mental patients did have a higher incidence of the crimes of rape and robbery than the general population. The authors concluded that the mental hospital experience had no definite effect on reducing the total arrest rate, but that some diagnostic groups showed a change after hospitalization: alcoholics evidenced a decrease in arrests; antisocial reactions showed a marked increase; and schizophrenics showed no change. Alcoholics and schizophrenics counted for the largest percentage of those contributing to the data since they represented the majority of the hospitalized patients. The authors also found no significant differences in the arrest rates of the two populations in mental patients in 1947 and 1957. They interpreted this finding as suggesting that psychiatric medications, which were introduced as a new treatment technique in the decade between the first and second sample, did not have an effect of reducing violent behavior in patients.

We have already discussed the work of Rappeport and Lassen (1966), in which their two studies reported a lower rate of arrests for mental patients than previous studies. We also discussed the work of Rappeport, Giovannoni and Gurel (1967) who found a higher rate of arrests among ex-patients than those reported in most studies.

Mullen and Rollins (1977), supported by NIMH, studied 500 Wake County, North Carolina mental patients discharged from Dorothea Dix Hospital, Raleigh, North Carolina, into Wake County. Five separate samples of 100 mental patients, discharged over a five year period, were selected and followed-up for one through five years from 1968 to 1972. The authors found that discharged mental patients are most frequently arrested for alcohol-related crimes (e.g., driving under the influence and public drunkenness) and for other traffic violations. Although most patient arrests are not for violent crimes, mental patients are charged with a significant number of violent crimes. Patients in all categories of arrests using the Uniform Crime Code Report, including violent and non-violent crimes, had an arrest rate five times higher than the arrest rate of the general Wake County population. The arrest rates of the mental patients were equivalent to arrest rates of black adult males within the County. Unfortunately, the authors could not analyze the data to indicate the marked differences between patients with no prior arrest records and those with multiple prior arrest records. The study also could not compare arrest information of other appropriate groups (e.g., comparison of violent crimes committed by prisoners, mental patients, and the general population).

An important study on the use of arrest rates of discharged mental patients is the study of Zitren, et al., (1976) who reported their study of 867 patients admitted to the psychiatric division of New York Bellevue Hospital from the Bellevue catchment area during the period of 1969-1971. They obtained arrest records that listed the criminal activity of their cohort within New York City from the period two years before admission and two years after admission. They then constructed mean annual arrest rates per 1,000 persons aged 15 years and older for

murder, rape, robbery, aggravated assault and burglary. These arrest rates were compared with similar rates for the general Bellevue catchment area population and the populations in 5,601 United States cities both in 1972, the year with the highest arrest rates for serious crimes in these populations during the four-year study period. Zitren and associates found that mental patients had higher arrest rates for all serious crimes than did the urban United States population. However, when compared with the geographic area from which they are admitted, the mental patients had higher arrest rates only for rape, aggravated assault and burglary. Their arrest rates for murder and robbery were lower than those for the Bellevue catchment area population. The authors criticized conclusions of arrest rate studies which have been based upon skewed samples, but unfortunately their analyses do not separate mental patients into more appropriate subgroups (e.g. patients with no arrests and patients with multiple arrests).

Sosowsky (1978) compared arrest rates of 301 discharged California mental patients with the general population of the local county and selected United States cities. He found patients had a markedly higher incidence of arrests for violent and nonviolent crimes than his comparison groups. Results are misleading, however, because, like Zitren (1976), the author does not examine arrests of mental patients according to appropriate subgroups of patients as those with few arrests and patients with a record of multiple arrests.

A very important contribution to the study of arrest rates of mental patients as a measurement of the incidence of violence is the work of Steadman (1978), who compared the arrest rates of discharged mental patients and prisoners released in Albany County, New York, in 1968 and 1975. He found that it is the relationship between prior and subsequent arrests that explains the increasing crime rate of ex-patients and the three to six times higher rate of arrest of released prisoners. Since the three-quarters of former patients with no arrest records were arrested about as often as the general population and substantially less often than

offenders, care is warranted in drawing inferences concerning overall mental patient arrest rates.

The Steadman study is important because it examines arrests of mental patients by comparing appropriate groups: namely, comparing the arrest rates of prison inmates with those of mental patients. Furthermore, comparisons are also made of appropriate subgroups of prison inmates and mental patients. For example, Steadman compares subjects with one or no prior arrests to subjects with multiple prior arrests. There are, however, two principal weaknesses in this study. Although the data appear to be representative of New York State, the samples are actually taken of prisoners and mental patients in one New York State county. Secondly, the size of the samples was too small. Since few mental patients have a record of prior arrests, it is difficult to ascertain a base rate estimate of mental patients' arrests.

Judith Rabkin (1979) has provided a critical appraisal of available evidence concerning studies of arrests and convictions of discharged mental patients. Patients with arrest records prior to hospitalization were found to have arrest rates after discharge that far exceed those of the general public or of other patients. As the number of patients with prior records has increased over time, past discharge rates for patients considered as a single group have increased accordingly, although patients without prior records continue to have past discharge arrest rates equal to or lower than those of the general public.

Rabkin has indicated that in New York State the proportion of male mental patients who have arrest histories before hospitalization has risen from 15 percent to 40 percent in the past thirty years. Results of the survey suggest that an obvious method of reducing criminal activity among discharged mental patients is to reexamine current policies which contribute to the inappropriate use of mental hospitals as alternatives to the criminal justice system.

D) Dangerousness as a Standard for Involuntary Commitment

Many researchers have explored the problems of using dangerousness as a standard for involuntary hospital commitments. In the last decade, the use of the dangerousness standard has become widespread throughout the United States. The use of the dangerousness standard as a criterion for detaining individuals in institutions is not limited to the mental health system, for the criminal justice system also uses the dangerousness standard as a criterion for sentencing convicted felons and in parole decisions. One interesting study (Scheidemandel and Kanno, 1969) estimated that some 10,000 prison inmates and some 50,000 mental patients were incarcerated yearly on the basis of the dangerousness standard. For both the mental health and criminal justice systems, criminal arrest history is considered the most relevant, important information for the determination of dangerousness. For example, Scott and Vandiver (1975) found that the most significant factor in parole board decisions was an inmate's current offense, regardless of other considerations.

Our purpose here is not to replicate what others have already accomplished in critiquing the use of dangerousness as a standard of involuntary mental hospital commitment. For example, Wenk (1972) and Megargee (1976) have thoroughly explored the problems of prediction studies and, in particular, the methodological problems of predicting dangerousness. Within the past decade both the American Psychological Association (1975) and the American Psychiatric Association (1974) have completed task force investigations by well qualified professionals. They have examined the problem of predicting dangerousness from many dimensions, and concluded, among many other findings, that neither psychiatrists nor psychologists empirically do well in making such predictions, and, in fact, may overpredict in a ratio as high as 2:1. Neither psychological tests, nor psychiatric examinations or demographic information have proven to be of much use. The problem of using the dangerousness standard has also been investigated from the legal point of view (Dix, 1976) and the difficulties enumerated. Also the extensive work of such

individuals as Monahan (1978, 1975 (a) and (b); Monahan and Cummings, 1975); and Steadman and Coccozza (1978, 1977, 1973) and Toch (1969, 1977) supports the evidence that professionals are unable to predict dangerousness, even though during the same decade the use of the dangerousness standard continues to increase.

What has emerged from the controversy over dangerousness as a standard for involuntary commitment is the suggestions made by many that an actuarial approach may be a fruitful way of improving judgments of dangerousness (Shah, 1978). By using expert opinion, together with psychological tests, demographic information, and compared with post confinement history of patients, an actuarial approach may prove to be a useful way of refining clinical judgments of professionals. To our knowledge, the TDMHMR study may be the most extensive effort on a state and national scale to examine the viability of developing an actuarial approach to be used by professionals in the prediction of dangerousness.

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APPENDIX 2

THE MENTALLY ABNORMAL OFFENDER IN TEXAS: AN
HISTORICAL PERSPECTIVE OF LAWS
IN TEXAS

by

Harold K. Dudley, Jr., M.A.

The Mentally Abnormal Offender in Texas:
A Historical Perspective of Laws

Mentally abnormal offenders have traditionally posed complex and controversial problems within the judicial and mental health systems. Behind much of the problem lies the widely accepted assumption that mentally ill persons, particularly those who have been charged with a criminal offense, are somehow uniquely dangerous⁽¹⁾. Many of the negative attitudes toward the mentally ill are probably generalizations of the fear many persons have of mentally abnormal offenders. Because of the bizarre nature of some of the crimes committed by this population, and further dramatized in sensational newspaper articles, the mentally abnormal offender is perhaps feared more than even "normal criminals". Some mental health and legal professionals, however, have argued that many of society's fears are unrealistic, resulting in discrimination against this group. This specter of dangerousness and unpredictability which haunts and arouses society is thus reflected in the legal procedures established for these persons. The following is a brief chronological review of these laws as they have been established in Texas.

A Historical Perspective of the Laws Dealing with Mentally Abnormal Offenders in
Texas:

1840

A law enacted in 1840 by the 4th Congress of the Republic of Texas was one of the first to take into account persons who were considered to be of unsound mind. It made provisions for the appointment of guardians for idiots, lunatics, and persons non compos mentis (of unsound mind) on full proof of the idiocy, madness, or incompetency of the person. Although this particular law did not deal with criminal insanity, it was a forerunner of a law to be passed after Texas had become a State.

1848

The first Legislature of the State of Texas in the year 1848 passed a law entitled "An Act to Organize Probate Courts" and, in delegating to the judges their powers and duties, provided that the judges of the probate courts shall have power "... to order inquisition to be made by a jury, of idiocy, lunacy, and of persons of unsound mind; ..." (2) This law served the same function as the 1840 Law in that it provided for the appointment of guardians for this group, and once again there was no mention of persons charged with a criminal offense.

1857

The Texas Penal Code and The Texas Code of Criminal Procedure were promulgated on February 1, 1857.

The Texas Penal Code: There were three articles in the Penal Code which dealt with the issue of insanity: Article 34 of the Penal Code stated:

No act done in a state of insanity can be punished as an offense. No person who becomes insane after he committed an offense shall be tried for the same while in such condition. No person who becomes insane after he is found guilty shall be punished for the offense while in such condition. (3)

This Article remained unchanged for approximately eighty years except for changes in the Article number in later revisions of the Penal Code. The Article provided three conditions, any one of which, if met, would either permanently or temporarily prevent punishment for crime. The first of these conditions was that an individual could not be punished for an offense committed while in an insane state. An individual who fit in this category would be permanently free from punishment and, if sane at the time of trial, could be released as a free individual. If he were still insane at the time of trial, he could be placed in a mental hospital (although there were no public facilities at the time) until sane and then be released. The second condition was that a person who

committed an act while sane but subsequently became insane could not be tried while in the insane condition. This type of individual was committed to a mental hospital until he became sane and then he was tried for the offense when released from the hospital. The last condition was that an individual who became insane after he had been convicted could not be punished while he was insane.

Article 35 was a companion to Article 34 and involved the rules of evidence which were used in determining the sanity or insanity of an individual. As written in the Penal Code of 1857, this article stated:

The rules of evidence known to the common law, in respect to the proof of insanity, shall be observed in all trials where that question is an issue. The manner of ascertaining whether the insanity is real or pretended, when it is alleged that the defendant became insane after the commission of the offense is prescribed in Part III., Chapter 11., of the Code of Criminal Procedure. (4)

The rule of evidence which this Article referred to was the McNaughten rule. (Daniel McNaughten's Case, 10 C. & F. 200, 210-211, 8 Eng. Rep. 718, 722-723[1843]).

Every man is to be presumed to be sane, and ... to establish a defense on the ground of insanity, it must be clearly proved that, at the time of the committing of the act, the party accused was labouring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing; or if he did know it, that he did not know he was doing what was wrong.

Article 36 was concerned with the defense of temporary insanity produced through the use of alcohol, narcotics, or any type of dangerous drug. Under the provisions of this Article, these types of defenses were no excuse for crime. "However, temporary insanity produced by voluntary recent use of ardent spirits, intoxicating liquor, narcotics and dangerous drugs is not an excuse. Evidence of such insanity may be introduced only for the purpose of mitigating the penalty." (5)

The Texas Code of Criminal Procedure: Several Articles of the Code of Criminal Procedure (CCP) specifically related to the issue of criminal insanity.

Article 636 of the CCP of 1857 dealt with the jury decision regarding insanity. The Article stated: "When the defendant is acquitted on the ground of insanity, the jury shall so state in their verdict." (6) (This particular Article

remained in the later revisions of the Code under varying Article numbers but with the same textual material until the revision of the Code in 1965 at which time it was repealed.)

Article 637 of the CCP of 1857 concerned the opinion of the jury with respect to the insanity of an individual pleading guilty. According to this Article, if the jury felt that the individual was insane, they were to report their findings to the judge who would then impanel another jury to decide the issue of insanity.

Thirteen Articles of the CCP (781-793) of 1857 were concerned with inquiry as to the insanity of the defendant after conviction. These Articles provided that the court could impanel a jury to try the issue of insanity if it had reason to believe that the individual was insane, even after conviction. The information regarding the insanity of the individual was allowed to be given by any respectable person who had reason to believe that such was the case. Given such a situation the sheriff was ordered to produce twelve men to act as jurors. Under the provisions of these Articles, there were no special requirements necessary for the trial on the issue of insanity; however, each party in the trial was authorized six preemptory challenges and challenges for cause. Additionally, the defendant was entitled to be represented by counsel, and if he did not have one, the court would appoint one for him. The counsel also had the right to open and close the argument on behalf of the defendant. If the individual were found to be insane by the jury, the judgment against him was suspended, but if the judgment had already been rendered, then the execution of that judgment was suspended until the defendant had regained his sanity. If the jury found that the defendant was sane, then judgment was immediately passed if it had not been previously done. If the judgment had been previously passed, then it was immediately executed. Under the provisions of these articles

of the Code, it was the responsibility of the county court to provide for safekeeping and proper treatment of the individual declared insane since the State did not have any asylums at the time.⁽⁷⁾

1858

In 1858, the Legislature passed an Act entitled "An Act to Provide for the Organization of the State Lunatic Asylum, and for the Care and Maintenance of the Insane." (Two years earlier the State Legislature had appropriated fifty thousand dollars for the erection and support of the State's first Lunatic Asylum.) Mention was made in this Act of persons charged with a criminal offense. Section 11 of the Act stated:

If any person charged with or convicted of any criminal offense, be found to be insane in the Court before which he is so charged, or convicted, said Court shall order him to be conveyed to and retained, until removed by order of the Court by which he was committed to the Asylum.⁽⁸⁾

1863

In 1863, Section 11 of the law of 1858 was amended and rewritten to read as follows:

If any person charged with, or convicted of, any criminal offense, be found to be insane, in the court before which he is so charged or convicted, said court shall order him to be conveyed to, and retained in, the State Lunatic Asylum; and he shall be received and retained until removed by order of the court, or of the judge thereof, by which he was committed to the Asylum. Provided, the person so committed to the Asylum, may be removed to the custody of the sheriff of the county in which he is charged or convicted as aforesaid, by the order of a judge authorized to issue the writ of habeas corpus, as in other cases authorized by law.⁽⁹⁾

1879

The Texas Code of Criminal Procedure was amended in 1879. The CCP of 1879 under Title XII, Chapter 1, provided for the inquiry into the sanity or insanity of the defendant after conviction. The provisions regarding the issue in this

Code were basically the same as those of the Code of 1857; however, there were some procedurally significant changes. Under the provisions of these articles (Articles 947-960), the court rather than the sheriff was responsible for obtaining jurors to try the case. Since the promulgation of the Code of 1857, provisions had been made for the establishment of a lunatic asylum in the State. As a result, individuals found to be insane under the provisions of the Code of 1879 were sent to the lunatic asylum. When the individual became sane it was the responsibility of the superintendent of the asylum to notify the court in writing. It was then the court's responsibility to have the individual returned to the court. When the individual had been returned to the court, a jury was impaneled to determine his sanity or insanity. If the jury found the individual sane, his conviction was carried out; if, however, the jury found him to be still insane, he was returned to the lunatic asylum.

1913

During the Regular Session of the 33rd Legislature, an Act (Law of 1913) was passed pertaining to Asylums. The major portion of the act dealt with judicial proceedings in cases of lunacy. The law called for the appointment of a commission by the county judge. The commission was to consist of six individuals and, depending on the population in the county, was to have a proportionate number of the six as doctors. (It was the responsibility of this commission to determine the mental condition of the person brought before it rather than the trial by jury as called for in Article 1, Section 15 of the State Constitution.)

1917

The Law of 1913 passed by the 33rd Legislature was challenged in 1917 by Mrs. Lillie White who had been adjudged a lunatic by a county judge upon the report of the six member commission. The case White v. White reached the Texas

Supreme Court on June 31, 1917. The Court in its decision voided the entire law of 1913, and in so doing stated:

The asserted right having existed at common law and in various American states, and especially in Texas prior and down to the adoption of our present Constitution, so much of said act of 1913 as relates to a hearing before a commission, in lieu of the time-honored trial by jury, is invalid; and, inasmuch as that vice obviously permeates said entire act, we hold it void as a whole. The effect, of course, is to leave the old law in force. (10)

1923

In June, 1923, the Texas Legislature which had become concerned with the conditions existing in the various State eleemosynary (supported by charity) institutions created a nine member eleemosynary commission. In establishing this commission, the Legislature stated:

It shall be the duty of said commission to make a careful study of conditions existing in this State in connection with the above name dependents and unfortunates, directing consideration toward the following particular matters: First, the prevention of insanity, feeble-mindedness, delinquency, and the increase of State dependents; Second, the care and custody of the criminally insane; Third, the revision of laws governing the commitment, parole, discharge, care and custody of inmates of State eleemosynary institutions, and investigation of the report that an official connected with one of the State insane hospitals has employed inmates of said institution in his personal service; ... (11)

1925

The above commission had been in operation for approximately two years when it submitted its preliminary report to the Governor and Legislature in February 1925. One of the recommendations which was made in the report was to change the commitment law for persons judged to be insane. The recommendation was worded as follows:

The present commitment law should be so changed that court jury trials will be used only when demanded, and so that patients in early stages of threatened mental breakdown may with proper safeguards be received for observation and treatment temporarily without being officially and legally adjudged insane at all. In order not to place the stigma of legal insanity upon their loved ones, the family now usually delays

having a threatened nervous breakdown treated until it is too late to prevent the collapse.⁽¹²⁾

As a result of this recommendation, the 39th Legislature passed an act (Law of 1925) relating to the commitment and confinement of insane persons. This Act provided for the commitment of individuals by a judge if a jury trial were not demanded by the individual under inquiry.

1927

Although the recommendation and the law mentioned above were probably undertaken in good faith, the act was declared unconstitutional in a case in 1927.⁽¹³⁾ The State Attorney General also commented on this law six years later in an Opinion of the Attorney General. In this opinion the Assistant Attorney General stated that the Legislature had no right to do away with jury trials and that to do so was against the present judicial system of the State and "obnoxious to our Constitution." It was noted in the opinion:

We note that the Article 3193b does not in terms deny the right of trial by jury. Notwithstanding the proviso in the act that a jury may be demanded. So far as it provides for a trial without a jury, it is violative of Section 15, Article 1, in conflict with the same and, therefore, that portion of same is invalid. It matters not what the nature of the proceeding may be, if in such action the right of a jury trial was universally recognized and had become firmly established when our Constitution was adopted, then the right was perpetuated by the constitutional provision above mentioned.⁽¹⁴⁾

1931

The Code of Criminal Procedure: The TCCP was amended to provide for an affidavit from a respectable person attesting to the insanity of an individual.

The amended article stated:

Information to the Judge of the Court as provided in Article 921 of the Code of Criminal Procedure of the State of Texas as to the insanity of a defendant, shall consist of an affidavit of the Superintendent of some State institution for the treatment of the insane, or the affidavit of not less than two licensed and regularly practicing physicians of the State of Texas, or the affidavit of the prison

physician or warden of the Penal Institution wherein the defendant is in prison, or the County Health Officer of the County where the defendant was finally convicted, which affidavits, if made, shall state that after a personal examination of the defendant it is the opinion of the affiant that the defendant is insane, and said affidavits shall, in addition thereto, set forth the reasons and the cause or causes which have justified the opinion.⁽¹⁵⁾

Vernon's Texas Civil Statutes, Article 3186a: This law provided that persons adjudged to be insane subsequent to conviction who were prisoners in the penitentiary could be adjudicated insane in the Walker County Court and transferred to a state hospital for the treatment of the insane or other place provided thereafter by law.

Vernon's Texas Civil Statutes, Article 6203e: This law authorized the establishment of a State Prison Psychopathic Hospital as part of the Texas Prison System, for the care of persons who had been adjudged insane both at the time of the offense and at the time of trial, and those who had been adjudged insane subsequent to conviction.

1933

The general appropriation bill enacted in 1933 listed "Hospital (to be used also for criminally insane) to be built with convict labor within the prison walls at Huntsville, Texas -- \$50,000." Prison authorities apparently interpreted the appropriation to mean a general hospital with facilities for mental patients, and the newly constructed hospital was designed as a general hospital with the section for the insane having a capacity of only 45 patients.⁽¹⁶⁾

1937

Specifically in regard to criminally insane persons, Acts 1937, 45th Legislature, p. 1172, Ch. 466, Article 932 provided:

1. "County Judge shall take the necessary steps to have a person committed to and confined in a state hospital for the insane until he becomes sane.

2. When a person becomes sane, the superintendent of a hospital shall give written notice to the Judge of the Court from which the order of commitment was issued.
3. Upon receipt of notice, the judge shall require the sheriff to bring the person from the hospital and place him in the proper custody until the hearing may be had before a jury to determine the person's sanity.
4. If found sane, person is then to be discharged."

This 1937 statute existed in the same form until 1957 and was one of the very first statutes directly speaking to the issue of the "criminally insane."

1946

In 1946 the Attorney General's office received an inquiry from the General Manager of the Texas Prison System regarding the State Prison Psychopathic Hospital. The Attorney General stated:

Although there may be a hospital within the prison walls suitable for the housing of insane, it is not properly staffed as called for in Article 6203e, and therefore for all practical purposes it is not the State Prison Psychopathic Hospital as contemplated by Article 6203e.⁽¹⁷⁾

Subsequently, during the summer of 1947, the Attorney General ruled that as of September 1, 1947, the State Prison Psychopathic Hospital, having been appropriated money for a psychiatrist, would be staffed for the "examination, observation, treatment, and incarceration" of prisoners judged insane. The logical corollary was that prisoners who became insane would be placed in the hospital at Huntsville. However, in the early 1950's many persons who had become insane after conviction for a crime were in the state mental hospitals. This was due primarily to one of two factors -- (a) they had been placed there prior to the Attorney General's ruling of 1947, or (b) courts, in disagreement with or unaware of the ruling, had continued to commit such persons to the state mental hospitals.

1952

At a meeting on November 10, 1952, the Board for Texas State Hospitals and Special Schools decided to establish a maximum security unit at Rusk State Hospital where the criminally insane of the various state hospitals could be placed together. During 1952 and 1953 a sum of \$176,607 was spent in converting three two-story buildings at Rusk (erected in 1929, 1930, and 1935) into a Maximum Security Unit. With the opening of the Maximum Security Unit in September, 1954, about 100 criminally insane individuals who had been residing in Rusk State Hospital were placed in the Maximum Security Unit.

1955

In 1955, the ~~54th~~ Legislature enacted a law (Vernon's Texas Civil Statutes, Article 3193-1) which provided that all persons committed to "a State Hospital for the insane or mentally ill for the first time" shall be committed either under (1) the 90-day involuntary commitment procedure or (2) the procedure for commitment of persons charged with a crime as of the time of the offense or the time of trial (Vernon's Code of Criminal Procedures, Article 932a). This law, thus recognized persons who had been adjudged insane both at the time of the offense and at the time of trial, but not those who had been adjudged insane subsequent to conviction, as proper subjects for commitment to state mental hospitals.

1956

The Texas Legislature Council was requested by the 54th Legislature to study the need for additional facilities for the care and treatment of the criminally insane. After considerable study and deliberation, the Council adopted a set of recommendations on December 14, 1956, to be considered by the members of the 55th Legislature. Basically, the Council recommended that:

1. "The Legislature consider the formulation of a new State Policy whereby the care and treatment of the adjudged criminally insane will be made wholly the responsibility of the Board for Hospitals and Special Schools.
2. The Legislature consider the revision of State laws dealing with commitment of the criminally insane. At present these laws are, in many respects, either vague or in conflict. Official interpretation of some statutes have, to a certain extent, clouded commitment procedures as well as official responsibilities."

1957

H.B. 906, Chapter 486, pp. 1413-1414, 55th Regular Session: As a result of the recommendations of the Texas Legislature Study Committee and the interest and concern of many other persons and groups, the Texas Legislature in 1957 amended the 1937 statute. Specifically in regard to the criminally insane, this statute provided:

1. "Court shall enter an order committing person to a state mental hospital and be confined therein until he becomes sane.
2. The head of the mental hospital to which said person is committed may transfer, furlough, and discharge him and shall treat him as any other patient committed for an indefinite period."

In reviewing the 1957 revision of the 1937 statutes in retrospect, it would seem that these revisions would be considered progressive even by today's standards.

Texas Penal Code, Article 34: In 1957 the 55th Legislature of the State amended Article 34 of the Penal Code. The first two sentences of the article were left intact, but the third was amended to add an additional clause pertaining to credit for the prison sentence while in a mental hospital. As amended, the last sentence read:

No person who becomes insane after he is found guilty shall be punished while in such condition; however, the time he is confined in a state mental hospital for treatment may be considered time served and may be credited to the term of his sentence. (18)

This amendment did not materially affect the three conditions which had originally been provided for when the article was first promulgated in 1857.

Texas Code of Criminal Procedure, Article 932-1: In 1957 the 55th Legislature also amended Article 932-1 of the CCP. It replaced the repealed Articles 921-932 of the Code of 1925. This article, entitled "Mental Illness after Conviction," was concerned with the procedures involved in transferring an individual who had become insane from the penitentiary or county jail to a State mental hospital. The 1957 statute remained in this form until 1965.

1965

In 1965 the 59th Texas Legislature enacted Article 46.02 to the Code of Criminal Procedure. Article 46.02 as it related to the criminally insane provided:

1. "If a jury finds a defendant to be insane, and further finds that the defendant should be committed to a mental institution, the court shall enter an order committing the person to a State mental hospital to be confined therein until he becomes sane.
2. In the event the head of the mental hospital to which this person has been committed is of the opinion that the person is sane, he shall so notify the court which committed the person to the State mental hospital. Upon receiving such notice, the judge of the committing court shall impanel a jury to determine whether the person is sane or insane. If the jury finds the person is sane, he shall be released. If the jury finds the person is insane, the court shall order his return to the state mental hospital until he is so adjudged to be sane at a subsequent jury trial in such committing county."

With the 1965 statute, the liberal provisions of the 1957 statute were revised and the 1965 statute reverted back to the philosophy espoused in the 1937 statute. There does not seem to be any real difference between the 1937 statute and the 1967 statute.

1967

House Interim Committee on Facilities for the Criminally Insane and the Insane Criminal: In 1967 the House of Representatives of the 60th Legislature adopted resolution H.S.R. 427. This resolution directed a House Interim Committee to study facilities for the care and treatment of the criminally insane. The resolution stated that the study should be made in depth, to include legal, medical, rehabilitative and preventive aspects of mental illness with criminal tendencies. This May Make You Mad ... a report to the 61st Legislature by the House Interim Committee on Facilities for the Criminally Insane and the Insane Criminal in May, 1969, made the following recommendations specifically concerning the criminally insane at Rusk State Hospital:

1. The segregation of the criminally insane should be abolished. Stringent security precautions should be taken to protect the public and other patients from high risk patients, whatever the cause of their commitment.
2. The high risk patients should be divided into two categories: treatable and non-treatable. The long term non-treatables, a relatively small proportion of the total annual commitments, but a continually increasing share of the total population -- due to the extremely low release rate -- should be left at Rusk and managed. The high risk treatables should be transferred from Rusk to a high security environment near a medical school so that the training and research so vital to progress in mental health programs may be carried on in conjunction

with competent treatment of these people. The new unit, a maximum security ward in Houston, Lubbock, Dallas or San Antonio, could contract with medical schools to provide needed services.

3. Retardates with organic etiologies who respond poorly to treatment should be left at Rusk. New opinions are being formed every day, however, about the relative treatability of non-organic retardates. It is vital that a unit be developed near a medical school complex to work with this group. For those with violent aggressive behavior concomitant with their retardation, special security provisions would have to be made. Often, if work can be designed to suit the skill level of the retardate, his acting out behavior is ameliorated.
4. It is recommended that the Department of Mental Health and Mental Retardation's work program for patients be developed and implemented. Work should be productive, not continued situational episodes.
5. Community mental health outpatient facilities must be funded so that they can be used to provide follow-up services to patients released from institutions treating high risk patients. The movement from institution to society constitutes one of the major traumas in the patient's life. The State has invested, by the time he is released, no small sum of money in trying to improve the patient's mental health. And yet during this time of transition and major stress, help or counsel is rarely given. Forgetting for a moment the overriding ideals of humanness and compassion, it makes the best economic sense to provide adequate aftercare merely to protect the State's investment.

Texas Code of Criminal Procedure: From 1967 until the Legislative session in 1973, there were a number of revisions to Article 46.02 of the Texas Code of Criminal Procedure. However, most of these changes were minor and of no major significance.

1972

Perry Wayne Reynolds vs. Lex Neill, M.D., Superintendent, Rusk State Hos-

pital: Although the Texas Legislature and the Texas Department of Mental Health and Mental Retardation had made numerous changes in order to help improve and clarify the status of the criminally insane, these changes were not considered extensive enough by some. On October 11, 1972, petitioner Perry Wayne Reynolds filed a petition for a writ of habeas corpus in State court. He alleged denial of both due process and equal protection in several aspects of his confinement in the MSU at Rusk State Hospital following acquittal of criminal charges pending against him. The petition was denied, and the denial was affirmed by the Court of Criminal Appeals of Texas. Reynolds then filed a petition in Federal District Court, alleging claims for relief on the basis of 28 U.S.C. 2241 et seq., 42 U.S.C. 1983, and 28 U.S.C. 2201. A three-judge court was requested pursuant to 28 U.S.C. 2281.

In a pre-trial order dated April 18, 1974, the issue of the constitutionality of Article 46.02 of the Texas Code of Criminal Procedure was severed from the other issues in the case, and a three-judge court was convened to decide the issue.

At issue in this particular case were the standards for commitment, treatment and release as set out under Article 46.02 of the Texas Code of Criminal Procedure. This statute provided the procedure by which a defendant in a criminal case could have his present sanity tried either in advance of a trial on the merits or during such a trial. The defense of insanity at the time of offense could also be tried under this statute. After lengthy and extensive proceedings, the Court made its ruling. On August 28, 1974, and with the subsequent amending judgment on February 3, 1975, the United States District Court for the Northern District of Texas, Dallas Division, held:

1. The Commitment standards and procedures contained in the Texas Code of Criminal Procedures Article 46.02 were declared to be constitutional under the equal protection and due process requirements of the United States Constitution;
2. The treatment and release standards and procedures contained in and promulgated under Article 46.02 were declared to be unconstitutional because of the denial of due process and equal protection;
3. Future use of the treatment and release provisions of Article 46.02, and rules promulgated thereunder were enjoined.

Although this ruling directly affected the criminally insane patients within the Texas Department of Mental Health and Mental Retardation, it was limited in its scope. The order by the three judge court indicated that the treatment and release provisions of Article 46.02 were unconstitutional only as they applied to persons who had been found to be insane at the time of trial and insane at the time of the commission of a criminal offense. In making their order, the court expressed definite opinions relating to three areas of concern: commitment, treatment, and release.

1973

In 1973 the 63rd Legislature amended the Texas Penal Code in order to revise and clarify the issue of "Insanity". Section 8.01 of the Texas Penal Code, enacted by Acts 1973, 63rd Legislature, Chapter 426, effective January 1, 1974, stated "(1) it is an affirmative defense to prosecution that, at the time of the conduct charged, the actor, as a result of mental disease or defect, either did not know that his conduct was wrong or was incapable of conforming his conduct to the requirements of the law he allegedly violated; (2) the term 'mental disease or defect' does not include an abnormality manifested only by repeated criminal or otherwise antisocial conduct." Prior to this change in the law, the

test for determining mental responsibility for crime in Texas was the McNaughten Rule. Section 8.01 was intended to identify the disorder, mental disease or defect, and then require the trier of facts to determine if a disorder is or was present and whether as a result the person did not know his conduct was wrong or could not conform his conduct to the requirements of the law. It was hoped that this test would permit the expert to testify in terms of the "whole man" and focus on the appropriate legal policy. This law was also written in order to exclude sociopaths from the insanity defense for fear that recidivists would qualify if they could be characterized as sociopaths.

1975

The standards and procedures contained in Article 46.02 relating to treatment and release of insane-insane persons (adjudged insane at time of crime and insane at time of trial) had been declared unconstitutional. Additionally, the courts had indicated that some of the statutes under which the TDMHMR was functioning were not fulfilling the needs of the persons they were supposed to be serving. This court action and others throughout the country seemed to reinforce the idea of active legal involvement within mental health systems. It would be hoped, that after these many years of lawsuits, legal battles, and philosophical debates, that the end result would be an enlightened and progressive set of legal statutes which would protect and enhance the conditions of those persons for whom the TDMHMR was supposed to be providing services.

After considerable work by the Department and other interested individuals, the 64th Legislature passed a new statute relating to the status of the "criminally insane".

This revision of Article 46.02 and the addition of Article 46.03 to the Texas Code of Criminal Procedure were this Department's response to the growing concern in the areas of: equal protection, least restrictive alternatives,

right to treatment and due process as they affected the "criminally insane". The revisions made during the 1975 Legislative session were the most extensive and far-reaching ever attempted in the State of Texas. In fact, in comparison with the statutes of other states dealing with the mentally ill offender, the Texas Statutes appear to be rather progressive.

These statutes provided for:

Pre-Trial Evaluations: The time period for holding a patient for pre-trial evaluation for "competency" or "insanity" was 14 days. The examiner(s) was to send a written report to the court within 21 days of the order of the court for evaluation. The written report that was to be made to the committing court within 21 days must include:

1. "The procedures used in the examination;
2. The examiner's observations and findings as to the defendant's competency to stand trial;
3. Recommended treatment; and
4. If incompetent, observations and findings as to whether there is a substantial probability that the defendant will attain the competency to stand trial in the foreseeable future."

Competency Hearing: Two issues regarding competency were determined by the jury:

1. Whether or not the defendant was mentally incompetent to stand trial; and
2. Whether or not there was a substantial probability that the defendant would attain the competency to stand trial in the foreseeable future.

Incompetency Disposition:

1. When a defendant had been determined incompetent to stand trial, and unless it had been determined there was no substantial probability that

the defendant would attain competency to stand trial in the foreseeable future, the court would enter an order committing the defendant to the maximum security unit of Rusk State Hospital, to the maximum security unit of any other facility designated by the Texas Department of Mental Health and Mental Retardation, to an agency of the United States operating a mental hospital, or to a Veteran's Administration hospital for a period not to exceed 12 months.

The facility to which the defendant was committed was to develop an individual program for the purpose of aiding him to achieve competency. A report of his progress was sent to the court at least every 90 days.

2. If a defendant was found incompetent to stand trial and there was found no substantial probability that he would become competent in the foreseeable future, or if the defendant had been previously committed to a facility under Subsection (a) of Section 5 of Article 46.02 and it appeared to the court that the defendant required observation and/or treatment in a mental health or mental retardation facility for his own welfare and protection or the protection of others, the court transferred the defendant to the appropriate court for civil commitment proceedings.

A person committed to a mental health or mental retardation facility as a result of these proceedings was committed to the maximum security unit of Rusk State Hospital or the maximum security unit of any other facility designated by the Texas Department of Mental Health and Mental Retardation. Within 30 days following commitment, the person was to be transferred to a non-security unit of a mental health or mental retardation facility designated by the Texas Department of Mental Health and Mental Retardation unless the person was determined to be manifestly

dangerous by a review board of the Texas Department of Mental Health and Mental Retardation.

Insanity Disposition: If a defendant were found not guilty by reason of insanity in the trial of a criminal offense, and it appeared to the court that the defendant required observation and/or treatment in a mental health or mental retardation facility for his own welfare and protection or the protection of others, the court transferred the defendant to the appropriate court for civil commitment proceedings.

1977

The 65th Texas Legislature, at the request of the Texas Department of Mental Health and Mental Retardation, revised Articles 46.02 and 46.03 of the Texas Code of Criminal Procedure. These revisions took effect on September 1, 1977.

Provisions of the Law: In summary, Articles 46.02 and 46.03, Texas Code of Criminal Procedure, now provide: (Refer to Table I and Table II).

Pre-Trial Evaluations: The period for holding a patient for pre-trial evaluation for "competency" or "insanity" is now 21 days. The examiner(s) must send a written report to the committing court within 30 days, and the report must include:

1. A description of the procedures used in the examination;
2. The examiner's observations and findings as to the defendant's competency to stand trial;
3. Recommended treatment; and
4. If incompetent, observations and findings as to whether there is a substantial probability that the defendant will attain the competency to stand trial in the foreseeable future.

The examiner shall also submit a separate report setting forth his observations and findings concerning:

1. Whether the defendant is mentally ill and requires observation and/or

treatment or hospitalization in a mental hospital for his own welfare and protection or the protection of others; or

2. Whether the defendant is a mentally retarded person as defined in The Mentally Retarded Persons Act (Article 3871b, Vernon's Texas Civil Statutes) and requires commitment to a mental retardation facility;
3. If the examiner is a physician and concludes that the defendant is mentally ill, he shall complete and submit to the court a Certificate of Medical Examination for Mental Illness. If the examiner concludes that the defendant is a mentally retarded person and the examination has been conducted at a facility of the Texas Department of Mental Health and Mental Retardation or at a diagnostic center approved by the Texas Department of Mental Health and Mental Retardation, the examiner shall submit to the court an affidavit setting forth the conclusions reached as a result of the diagnostic examination.

An opinion as to the defendant's mental competency to stand trial and an opinion as to his sanity at the time of the offense may be requested by the court in the pre-trial evaluation, but each issue must be written and reported separately.

Competency Hearing: A defendant is presumed competent to stand trial unless a preponderance of the evidence proves that he is incompetent. The jury must determine (1) whether the defendant is incompetent to stand trial; and (2) whether there is no substantial probability that the defendant will attain the competency to stand trial within the foreseeable future. A person is considered to be incompetent to stand trial if he does not have:

1. Sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding; or
2. A rational as well as factual understanding of the proceedings against him.

Competency Disposition: If the defendant is found competent by the jury, he may then be tried on the merits of the case.

Incompetency Disposition:

1. When a defendant has been determined incompetent to stand trial but there is a substantial probability that he will attain such competency in the foreseeable future, the court commits the defendant to the Maximum Security Unit of Rusk State Hospital, to the maximum security unit of any other facility designated by the Texas Department of Mental Health and Mental Retardation, to an agency of the United States operating a mental hospital, or to a Veteran's Administration hospital, for a period of at least 60 days, but not to exceed 18 months.

This statute does not preclude the court from allowing the defendant to be released on bail if the court determines that the defendant can be adequately treated on an outpatient basis for the purpose of attaining competency to stand trial.

The facility to which the defendant is committed must develop an individual program with the purpose of aiding him to achieve competency, and report his progress to the court at least every 90 days. The head of a facility to which a person has been committed must promptly notify the committing court: (a) when he is of the opinion that the defendant has attained competency to stand trial; or (b) when he is of the opinion that there is no substantial probability that the defendant will attain the competency of stand trial in the foreseeable future; or (c) 14 days before the expiration of the 19 month commitment.

Further, when the head of the Texas Department of Mental Health and Mental Retardation facility to which the defendant is committed discharges the defendant and the defendant is returned to court, a final report must be filed with the court regarding the defendant's competency. In conjunction with this report, if the head of the Texas Department of Mental Health and Mental Retardation facility is of the opinion that the

defendant is mentally ill and requires observation and/or treatment or hospitalization in a mental hospital for his own welfare and protection or the protection of others, he must complete and submit to the court a Certificate of Medical Examination for Mental Illness. If the head of the Texas Department of Mental Health and Mental Retardation facility is of the opinion that the defendant is mentally retarded, he must submit to the court an affidavit setting forth the conclusions reached as a result of a diagnostic examination.

2. If a defendant is found to be incompetent to stand trial and there is found no substantial probability that he will become competent in the foreseeable future, or if the defendant has been previously committed to a facility (under Subsection "a" of Section 5 of Article 46.02, VCCP) and he remains incompetent and, in either event, all charges against the defendant are still pending, the court must determine whether there is evidence to support findings that the defendant is a mentally ill or mentally retarded person and requires commitment to a mental health or mental retardation facility. The court may submit the issues of mental illness or mental retardation to the same jury which determined the issue of incompetency, or it may impanel a second jury. If the charges against the defendant are dismissed after the competency hearing, and the court determines that there is evidence to support findings that the defendant is a mentally ill or mentally retarded person, the defendant must be transferred to the appropriate civil court for disposition.

A person committed to a mental health or mental retardation facility as a result of these proceedings is committed to the Maximum Security Unit of Rusk State Hospital or to the maximum security unit of any other facility designated by the Texas Department of Mental Health and Mental

Retardation.

Within 60 days following arrival at the facility, the person must be transferred to a nonsecurity unit of a mental health and mental retardation facility designated by the Texas Department of Mental Health and Mental Retardation unless he is determined to be manifestly dangerous by a Departmental Review Board consisting of three psychiatrists. The head of the facility is notified by the prosecuting attorney or the court that criminal charges against the patient are pending.

At least 14 days before the patient's discharge, the court is notified; the court also receives a written report as to the competency of the person to stand trial.

On written notice by the head of a mental health or mental retardation facility that, in his opinion, a person who has been civilly committed to that facility, and against whom criminal charges are pending, is competent to stand trial, or on good cause shown by the defendant, his counsel, or the prosecuting attorney, the court in which the criminal charges are pending may hold a hearing to determine the competency of the defendant to stand trial. If the defendant is found to be competent to stand trial, the proceedings on the criminal charges may be continued. If the defendant is again found incompetent to stand trial and is under an order of commitment to a mental health or mental retardation facility, the court must order him placed in the custody of the sheriff for transportation back to that same facility.

Insanity Disposition: If a defendant is found not guilty by reason of insanity in the trial of a criminal offense, and it appears to the court that the defendant is either mentally ill or is a mentally retarded person, the court must transfer the defendant to the appropriate court for civil commitment proceedings and may order the defendant detained pending the prompt determination

of whether the defendant shall be committed to a mental health or mental retardation facility or be discharged.

If a person is committed to a mental health or mental retardation facility as a result of these proceedings, he must be committed to the Maximum Security Unit of Rusk State Hospital or the maximum security unit of any other facility designated by the Texas Department of Mental Health and Mental Retardation. Within 60 days following arrival at the maximum security unit the person must be transferred to a nonsecurity unit of a mental health or mental retardation facility designated by the Texas Department of Mental Health and Mental Retardation unless the person is determined to be manifestly dangerous.

Manifest Dangerousness: One of the newest and most troublesome areas of Articles 46.02 and 46.03 of the Texas Code of Criminal Procedure has been the issue of manifest dangerousness as determined by a review board of the Texas Department of Mental Health and Mental Retardation. During the past, after a person had been civilly committed to the Maximum Security Unit at Rusk State Hospital, he was to be transferred to a nonsecurity unit within 30 days unless he was determined to be manifestly dangerous. If determined to be manifestly dangerous, the patient was to be retained on the Maximum Security Unit at Rusk State Hospital, but if he were determined not to be manifestly dangerous, then he was to be moved to a less restrictive environment.

Two significant changes took place on September 1, 1977 in regard to this procedure:

1. After a person has been civilly committed to the Maximum Security Unit at Rusk State Hospital, he must be transferred to a nonsecurity unit within 60 days of his admission to the Maximum Security Unit unless he is determined to be manifestly dangerous. This new procedure allows an additional 30 days for the staff on the Maximum Security Unit to gather all the data needed on patients in order to make their evaluations.

2. During the last two years the Review Board for Manifest Dangerousness was appointed by the Commissioner of the Texas Department of Mental Health and Mental Retardation and was composed of a seven member interdisciplinary team(s). This interdisciplinary team(s) met once a month and made the decision as to whether the civilly committed patients on the Maximum Security Unit were manifestly dangerous or not. As of September 1, 1977 the membership of the Review Board(s) was changed to include only three psychiatrists who are licensed to practice medicine in the State of Texas. Also, if the Superintendent of the facility at which the Maximum Security Unit is located disagrees with the determination of the Review Board, then the matter will be referred directly to the Commissioner of the Texas Department of Mental Health and Mental Retardation. This appeal process was previously directed to the Deputy Commissioner for Mental Health Services.

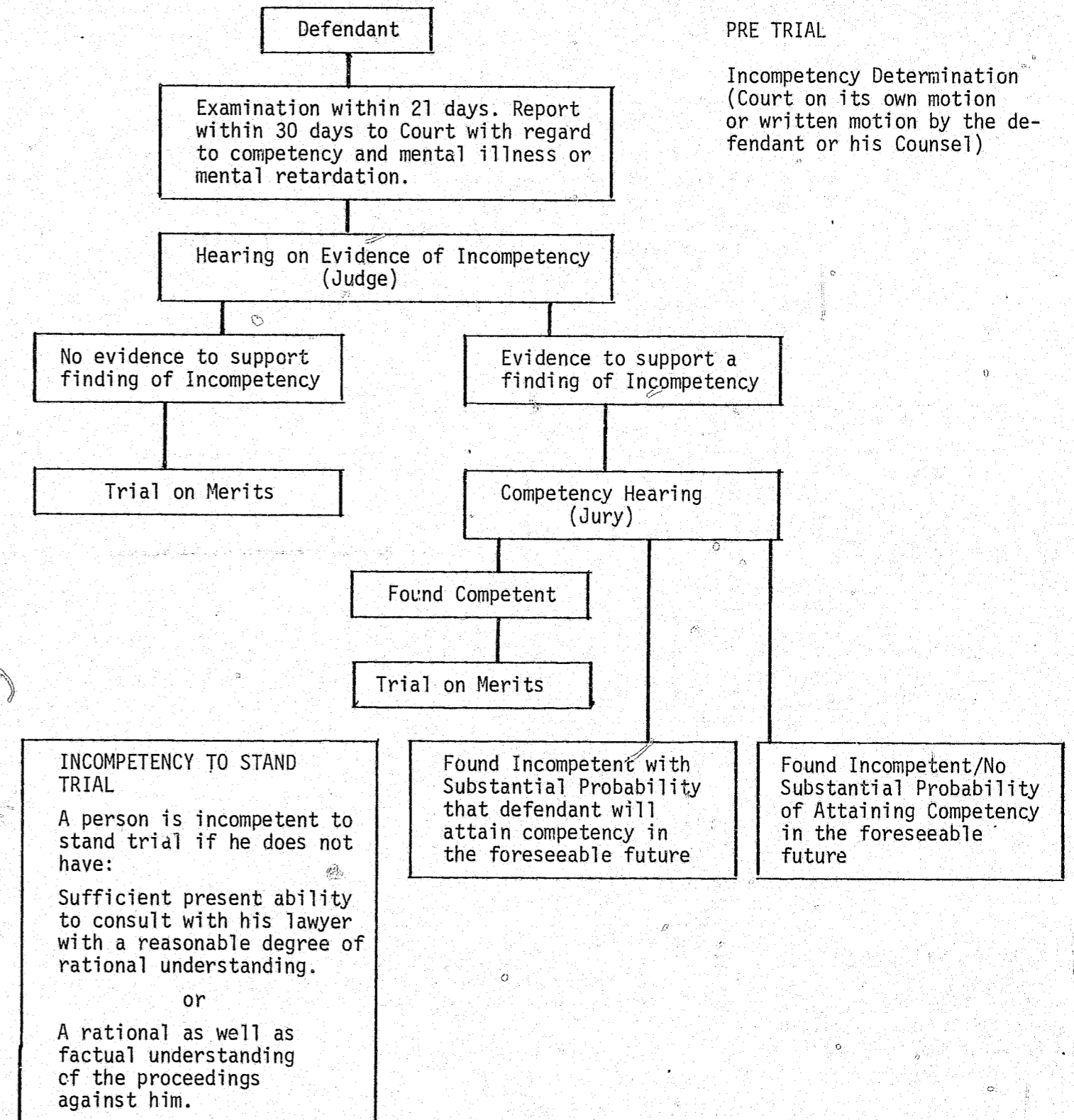
As can be seen from a review of these statutes, there appears to be a cycle of about every ten years where the primary responsibility of the mentally abnormal offender changes from the judicial system to the mental health system. The changes also appear to go from rather restrictive statutes to flexible statutes and back again to restrictive. Although many reasons are given for why these changes are made, the main reason is that society has not yet come to grips with how it wants to deal with these persons and the overwhelming aspect of "fear" continues to dominate their decisions.

References

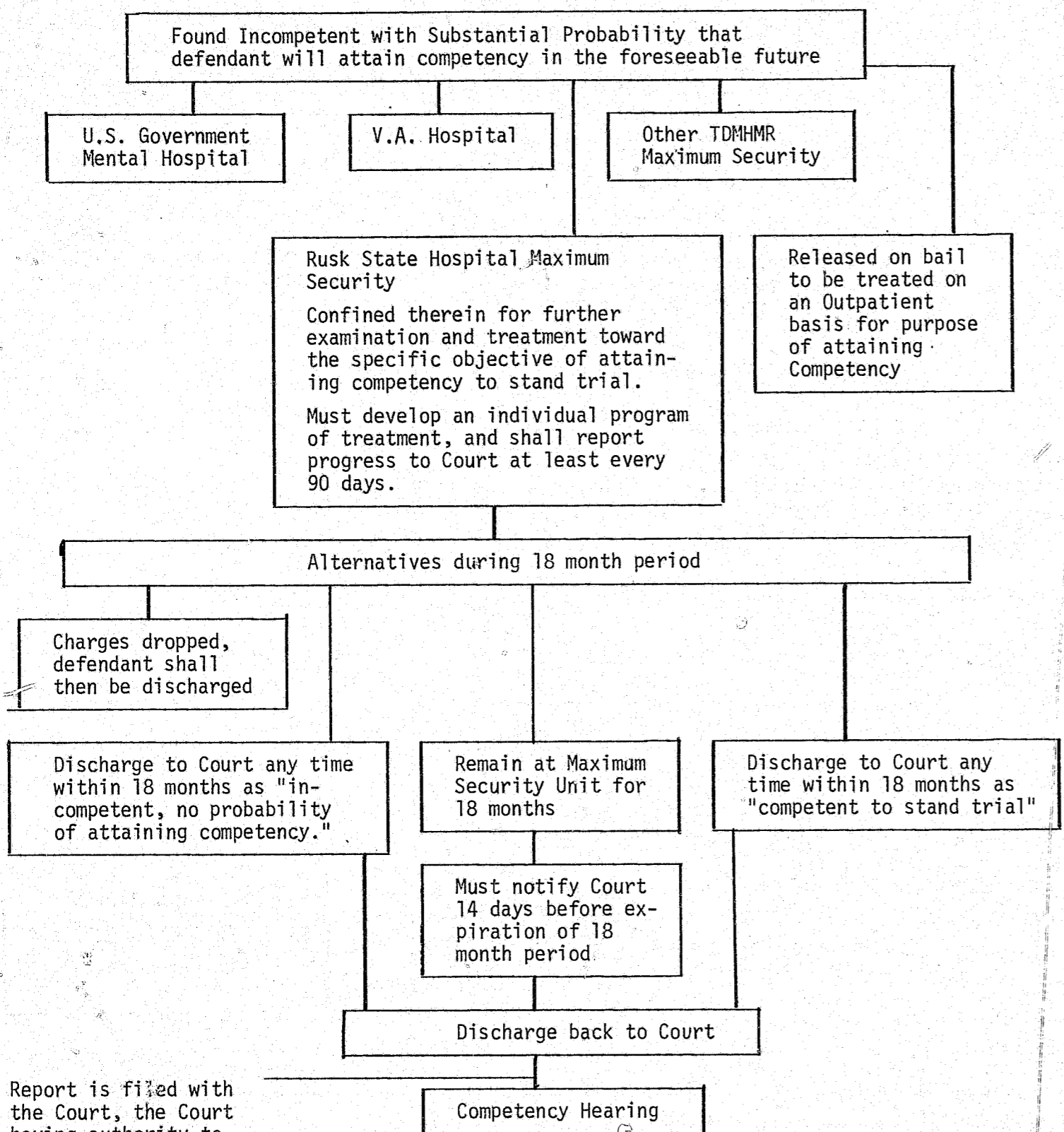
1. Morris, N., Psychiatry and the Dangerous Criminal, Southern California Law Review, Vol. 41, 1968, p. 514-547.
2. Two Laws of Texas, H. Gammel 302 (1848).
3. Article 41, Texas Penal Code, 6th Legislature, enacted August 26, 1856, took effect February 1, 1857.
4. Article 42, Texas Penal Code, 6th Legislature, enacted August 26, 1856, took effect February 1, 1857.
5. 16 Tex. Jur. 2d. p. 210.
6. Article 636, Texas Code of Criminal Procedure, 6th Legislature, enacted August 26, 1856, took effect February 1, 1857.
7. Articles 781-793, Texas Code of Criminal Procedure, 6th Legislature, enacted August 26, 1856, took effect February 1, 1857.
8. Four Laws of Texas, H. Gammel 989 (1858).
9. Five Laws of Texas, H. Gammel 697 (1863).
10. White v. White, 1965, S.W. 508 (1917).
11. Twenty Laws of Texas, H. Gammel, 314 (1923).
12. Preliminary Report of the Texas Eleemosynary Commission, with Recommendations, February 3, 1925.
13. Joe G. Resweber and Felix Salazar, Jr., "The Texas Mental Health Code," 4 South Texas Law Journal, 214 (1959).
14. Op. Texas Attorney General No. 2924 (1933).
15. Article 922, Texas Code of Criminal Procedure, 42d Legislature, took effect 1931.
16. Acts 43rd Legislature, 1933, ch. 166, p. 494.
17. Op. Texas Attorney General 0-7460 (1946).
18. Article 34, Texas Penal Code, 55th Legislature, took effect January 1, 1958.

INCOMPETENCY TO STAND TRIAL
ARTICLE 46.02 TEXAS CODE OF CRIMINAL PROCEDURE

(Flow chart showing route of a defendant whose competency to stand trial is at issue)

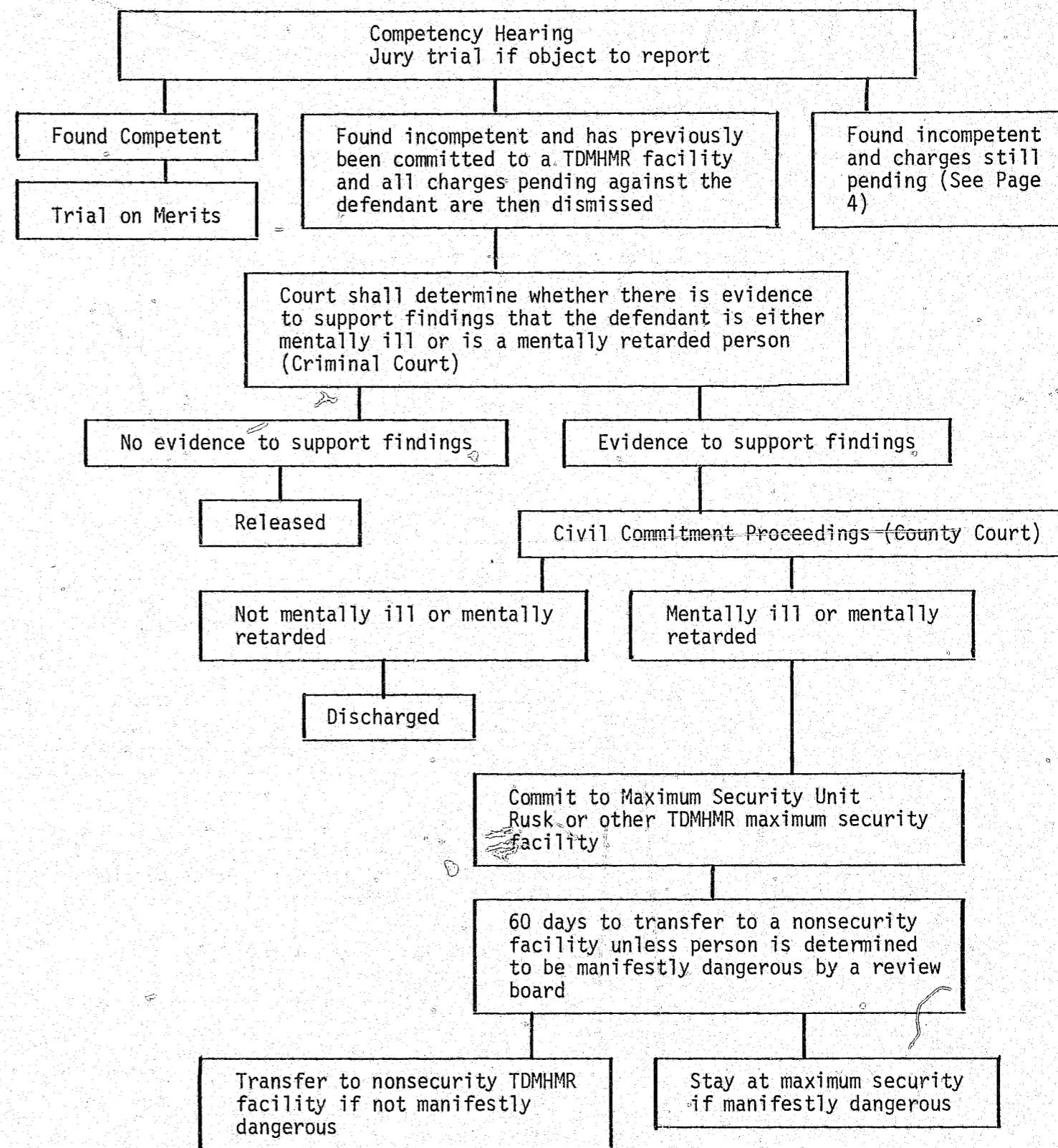


INCOMPETENCY TO STAND TRIAL

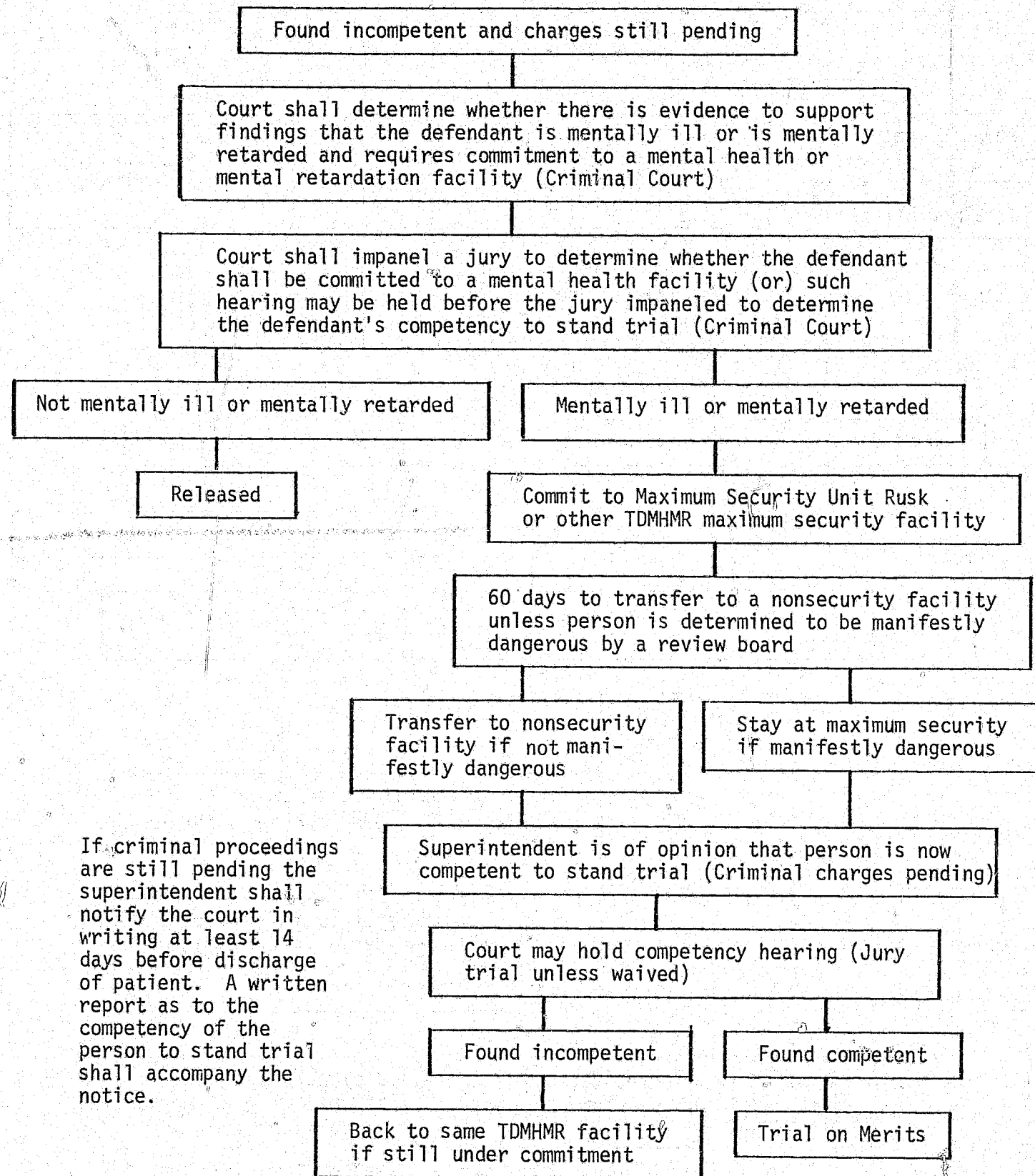


Report is filed with the Court, the Court having authority to make determination-unless objection from prosecution or defense counsel

INCOMPETENCY TO STAND TRIAL

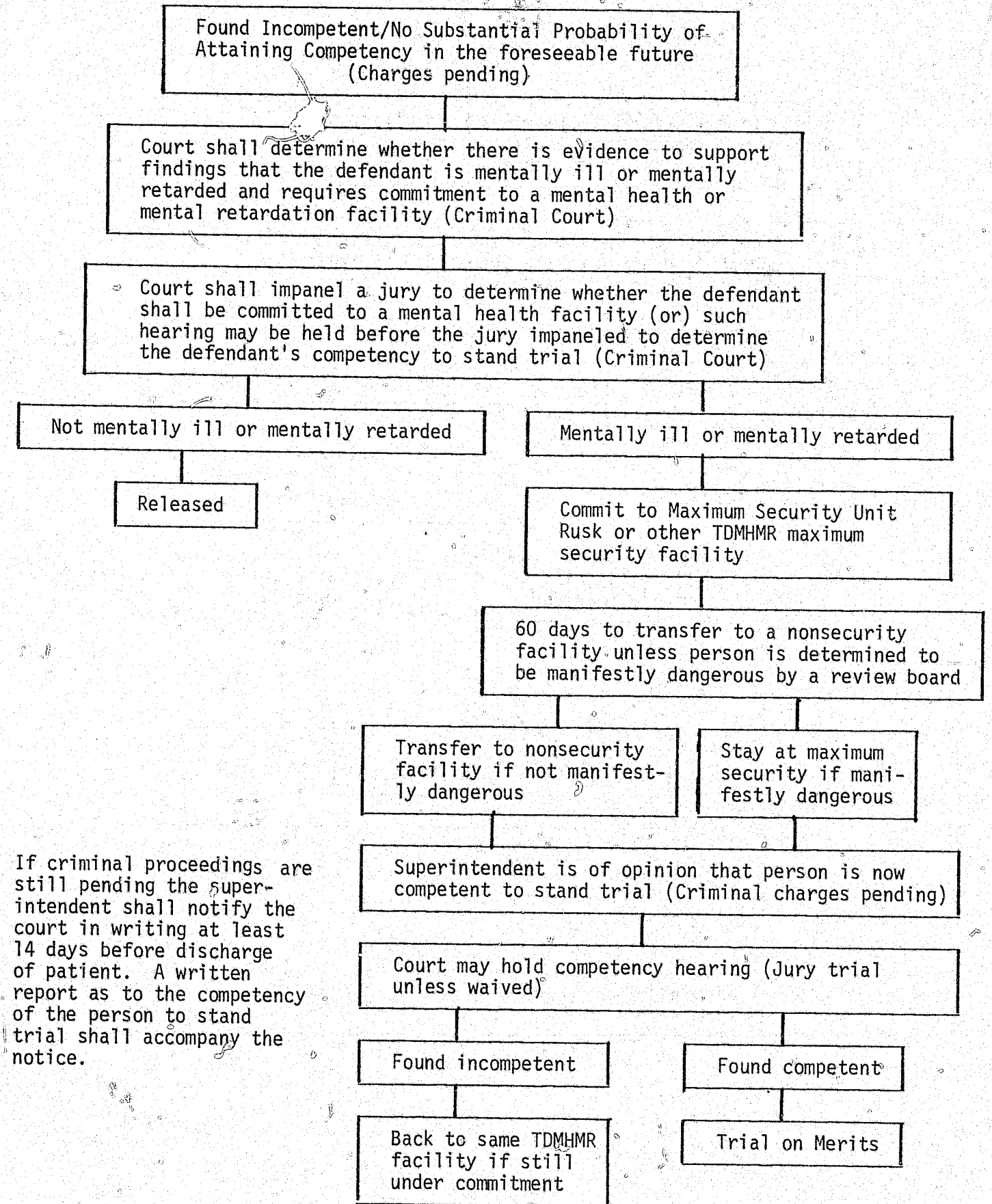


INCOMPETENCY TO STAND TRIAL



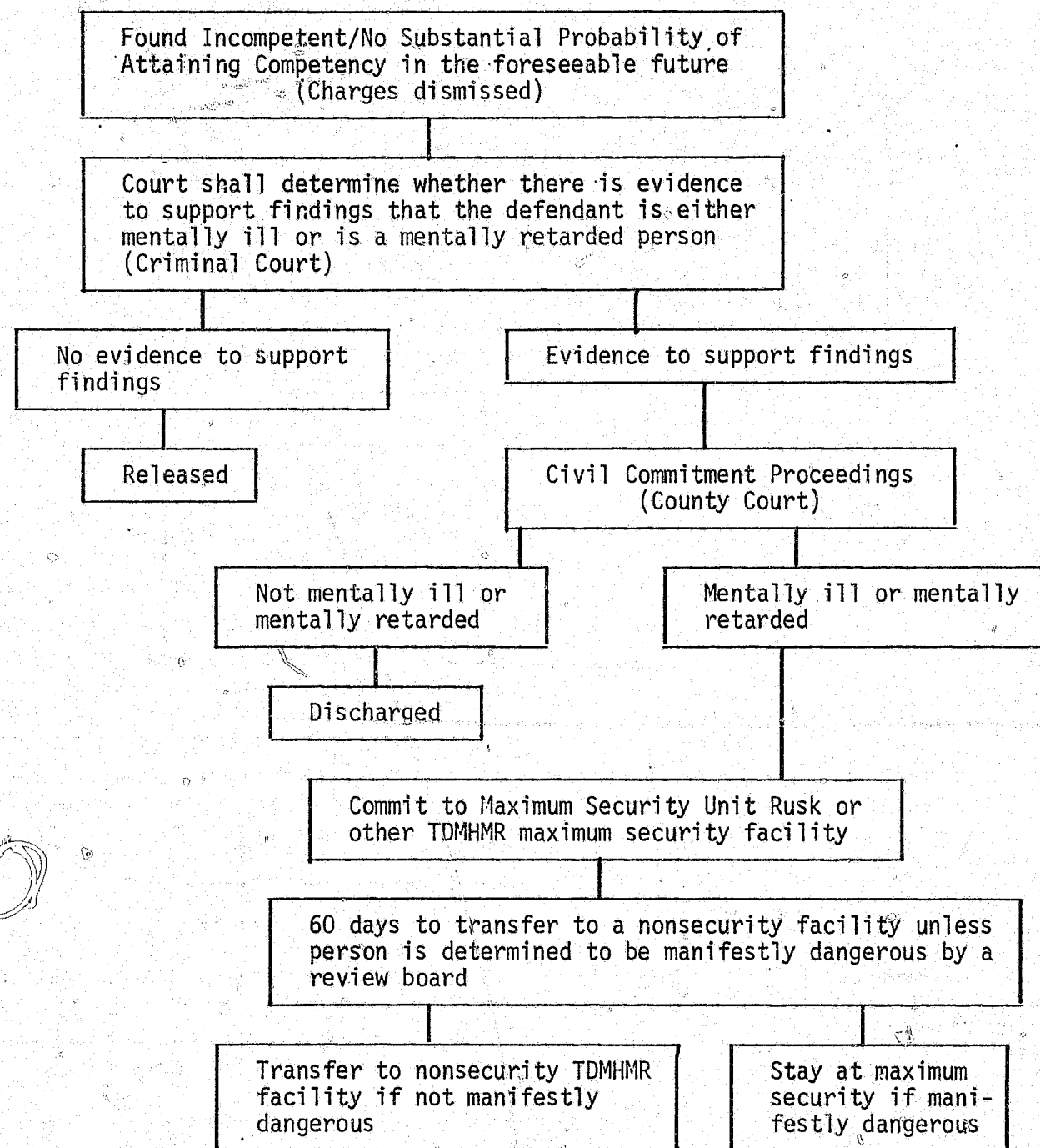
If criminal proceedings are still pending the superintendent shall notify the court in writing at least 14 days before discharge of patient. A written report as to the competency of the person to stand trial shall accompany the notice.

INCOMPETENCY TO STAND TRIAL



If criminal proceedings are still pending the superintendent shall notify the court in writing at least 14 days before discharge of patient. A written report as to the competency of the person to stand trial shall accompany the notice.

INCOMPETENCY TO STAND TRIAL

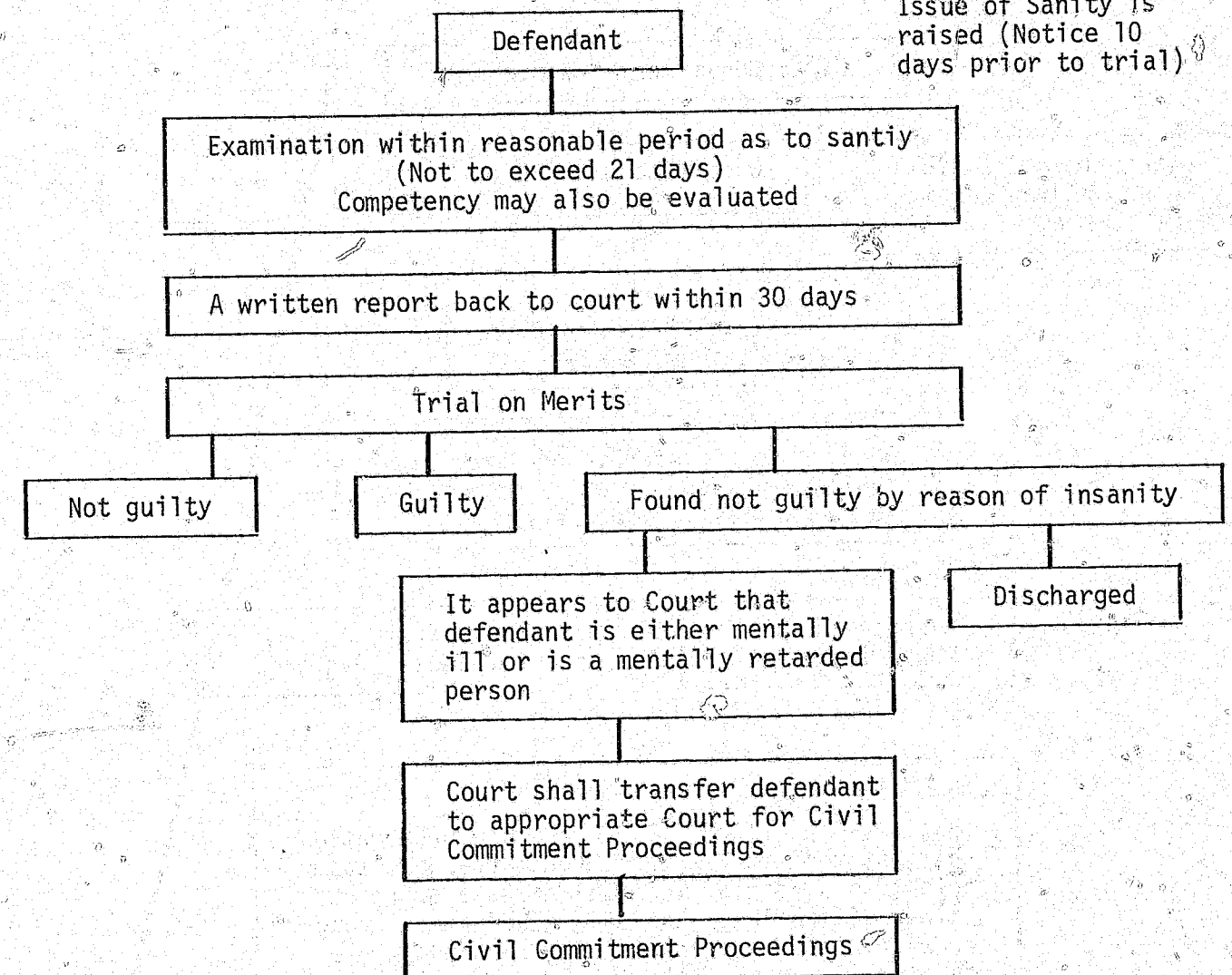


INSANITY DEFENSE

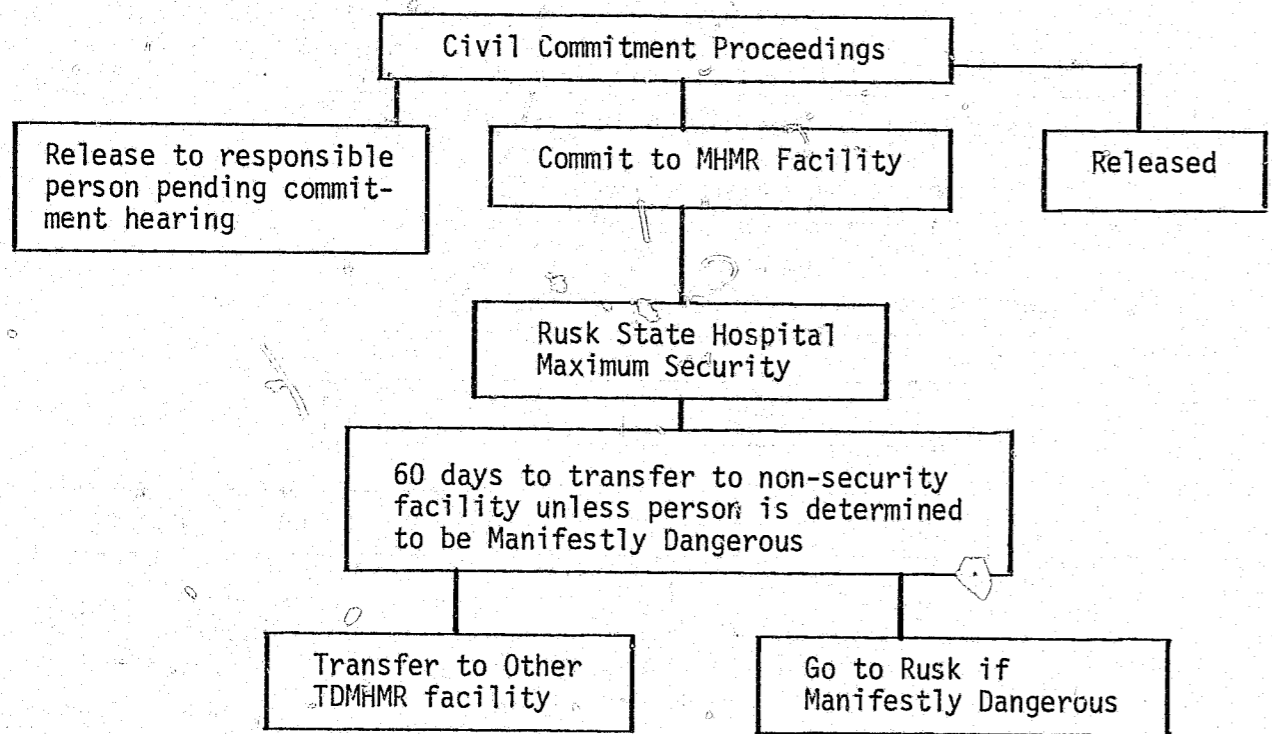
ARTICLE 46.03 TEXAS CODE OF CRIMINAL PROCEDURE

(Flow chart for a defendant whose sanity is at issue)

Issue of Sanity is raised (Notice 10 days prior to trial)



INSANITY DEFENSE
ARTICLE 46.03 TEXAS CODE OF CRIMINAL PROCEDURE
(Civil Commitment Proceedings)



INSANITY:

(a) It is an affirmative defense to prosecution that, at the time of the conduct charged, the actor, as a result of mental disease or defect, either did not know that his conduct was wrong or was incapable of conforming his conduct to the requirements of the law he allegedly violated.

(b) The term "mental disease or defect" does not include an abnormality manifested only by repeated criminal or otherwise antisocial conduct.

APPENDIX 3

COMPARISON OF TEXAS MAXIMUM SECURITY PATIENTS, 1965-1976

by

Harold K. Dudley, Jr., M.A.

Comparison of Texas Maximum Security Patients
Between the Years 1965 and 1976

INTRODUCTION

The term mentally abnormal offender can usually be applied to any person who has come into contact with both the criminal justice and the mental health system. In Texas this includes, but is not limited to, individuals found incompetent to stand trial under Article 46.02, Sections 5, 6, and 7, Vernon's Texas Civil Statutes (V.T.C.S.); those judged not guilty by reason of insanity under Article 46.03, Section 4, V.T.C.S.; and those committed for pre-trial evaluations under provisions of Article 46.02, Section 3, V.T.C.S. Individuals who have no charges pending but have been transferred from a state psychiatric hospital or the Texas Department of Corrections to the forensic unit at Rusk State Hospital because of their behavior and/or treatment needs are also considered mentally abnormal offenders (M.A.O.).

The M.A.O. category is quite broad and includes persons at various stages of the criminal - judicial - correctional - mental health process. It also entails the making of a number of separate and distinct decisions for differing purposes, and encompasses persons suffering from varying degrees of mental disturbance. These individuals, the M.A.O.'s, are no different for the most part than other individuals who are processed through either the criminal justice or the mental health system, yet because the constitutional right to treatment has become an accepted premise of litigation, forensic units have made extensive efforts to deal with the special treatment and management problems posed by the M.A.O.

During the past several years the standards for treatment of the M.A.O. have been below that of the more typical mental hospital patient. Many

Individuals were placed in forensic units in a type of "cold storage" in order to be isolated from the community. The fact that there was a need to house them with reasonable measures to minimize the possibility of escape naturally lead to an environment which could only be considered overly restrictive and punitive. But within the last few years the types of commitments of the M.A.O.'s began to change. Where under previous statutes, patients were at one point really unfit to stand trial, many are now receiving commitments due to such factors as low intelligence, extreme hostility, or uncooperativeness.

Forensic psychiatric units are now beginning to offer a much wider range of programs for the M.A.O. These programs include, but are not limited to:

1. In-patient evaluations for the courts;
2. Treatment of individuals found incompetent to stand trial;
3. Treatment of individuals found not guilty by reason of insanity, and
4. Treatment of those thought to be dangerous to themselves or others if housed in a less restrictive environment.

Because the general public has a basic belief that all mentally ill individuals are dangerous and that mentally ill people with criminal charges are extremely dangerous, the treatment is almost always provided in a secure environment. This enables the public to be more objective about such facilities and allows the various forensic units to offer a wider range of treatment for the patient. The end result is that the M.A.O. now spends less time as an inpatient and can be processed through the criminal justice and mental health systems much quicker.

The Maximum Security Unit at Rusk State Hospital, Rusk, Texas, can best be described as a forensic psychiatric unit that has experienced and is experiencing many changes. While most forensic units are composed of long outmoded complexes, the unit at Rusk is a new facility. The oldest dormitory

was constructed in 1972, the newest of the four dormitories was completed in October, 1977. It is remote from other existing facilities, as well as from medical facilities and the committing courts, and it is far removed from the State's population centers. While this remoteness serves to placate the population of the State and aid in controlling escapes, it hinders the role the hospital plays in aiding the patient to return to society.

This remoteness removes the patient from his family who may play a critical role in aiding in the patient's recovery, and it further removes the patient from the immediate area of the committing court and the complex legal machinery in which he is caught. Not only must this problem be dealt with, but the professionals who work with the M.A.O.'s must perceive and accept this remoteness as one of the problems of this class of patient.

THE CHANGING POPULATION

The uniqueness of the M.A.O.'s (and the security measures they require) and the changing legal status of this population has led to the need for a review of the M.A.O.'s within the Texas Department of Mental Health and Mental Retardation. The following review is a comparison of the M.A.O. population in Texas between the years 1965 and 1976. The type of patients committed to the Maximum Security Unit at Rusk is determined in large part by society, in the form of juries and judges. These people reflect a trend in our culture to psychologize problems of living. This is further demonstrated by the ever increasing demand that communities are placing on mental health facilities and the expectations these communities have. While at one point in the recent past the Maximum Security Unit may have been seen as providing an unnecessary and perhaps ancillary service, it has now become highly visible and serves an essential and critical function.

The variations in the number of individuals committed as M.A.O.'s are really the products of either policy or statute, in other words, just how the state elects to provide forensic mental health services. Many courts in Texas refuse to let offenders become caught in the revolving cell door for misdemeanors or minor property offenses. These courts elect to commit the individuals as M.A.O.'s, and they perceive this action as a new solution to an old problem. So, as the relationship between the courts and the mental health system changes, it becomes important to address a number of questions regarding these patients.

Within the Texas Department of Mental Health and Mental Retardation, the trend in the state hospitals has been toward a lower average daily census even though the total number of admissions has increased (average daily census in 1965 was 15,547; in 1976 it was 6,172) (total admissions in 1965 were 14,277; in 1976 it was 20,809). In spite of the fact that the population in Texas has increased by 15.5%, community treatment ideologies and programs have been able to keep more people from becoming institutionalized. State hospitals are aiding in this task by strongly urging a shorter stay at these facilities.

The M.A.O.'s have experienced this same situation. Although more and more M.A.O.'s have been admitted and treated, the average length of stay of these patients has also been reduced.

PART I:

COMPARISON OF CHARACTERISTICS OF CRIMINALLY CHARGED AND/OR
CRIMINALLY COMMITTED PATIENTS IN TEXAS STATE MENTAL HOSPITALS
AS OF AUGUST 31, 1965 AND AUGUST 31, 1976

I. Inpatients: (Refer to Table 1)

As of August 31, 1965, the Texas Department of Mental Health and Mental Retardation records contained the names of 250 patients who were in Texas state mental hospitals under criminal charges and/or criminal commitment (this was about 1.6% of the total State Hospital population); males outnumbered females by 9 to 1 in this patient group. Males accounted for 88.4% and females 11.6% of this criminal population. The ages of these criminally charged and/or criminally committed patients covered a wide range: 12 males were in the 14-19 age grouping and 24 males were in the 65 years of age or older age group.

As of August 31, 1976, the Texas Department of Mental Health and Mental Retardation records contained the names of 249 patients who were in Texas state mental hospitals under criminal charges and/or criminal commitment (this was about 4.4% of the total State Hospital population); males outnumbered females by about 8 to 1 in this patient group. Males accounted for 89.2% and females 10.8% of this criminal population. The ages of these criminally charged and/or criminally committed patients covered a wide range (from 14 to over 65) with 61.2% of the population being 34 years of age or younger. In comparison, the general psychiatric population of the state hospital males accounted for 56.9% male (3,365) of the population, while females accounted for 43.1% female (2,555).

It is most interesting to note that the number of M.A.O.'s who were in a Texas state mental hospital in 1976 did not differ significantly from the number of similar patients in 1965, even though the percentage has seen a definite increase (from 1.6% of the average daily census, to 4.1%).

It should also be noted that although male M.A.O.'s significantly outnumbered female M.A.O.'s in both 1965 and 1976, in the total hospital populations in both of these years, females outnumbered males.

II. Location of Patients: (Refer to Table 2)

As of August 31, 1965, the largest number of criminally charged and/or criminally committed patients were located at Rusk State Hospital (70%). Austin State Hospital ranked second with 10%; Terrell State Hospital with 9.6% and San Antonio State Hospital with 4.8% of this patient population. All hospitals within the Texas Department of Mental Health and Mental Retardation reported at least one criminally charged and/or criminally committed patient in residence as of August 31, 1965.

As of August 31, 1976, the largest number of criminally charged and/or criminally committed patients were located at Rusk State Hospital (78.8%). Wichita Falls State Hospital ranked second with 5.6%; Vernon Center with 4.4%; San Antonio State Hospital 4.0%; Terrell State Hospital with 3.6%; and Austin State Hospital with 3.2%. All Texas state mental hospitals except Kerrville State Hospital and TRIMS had at least one criminally charged and/or criminally committed patient in residence as of August 31, 1976.

III. Type of Crime (Refer to Table 3)

Seventy-eight (31.2%) of the 250 patients in residence as of August 31, 1965, who were under criminal charges and/or criminal commitment were charged with murder and/or non-negligent manslaughter. Aggravated assault was charged against 30 patients; burglary against 28; other assaults against 20; larceny against 18; and rape against 16. Crimes against the person (murder, manslaughter, aggravated assault, and rape) accounted for two-thirds of all criminal charges against these 250 patients.

As of August 31, 1976, the crime most frequently reported for this population was murder and non-negligent manslaughter. Fifty-nine (23.7% of the

249 patients in residence as of August 31, 1976, who were under criminal charges and/or criminal commitment were charged with murder and/or non-negligent manslaughter. Aggravated assault was charged against 24 (9.6%) patients; burglary-breaking and entering 27 (10.8%) patients; auto theft 24 (9.6%) patients; robbery 21 (8.4%); and attempted murder 17 (6.8%). Crimes against the person (murder, manslaughter, aggravated assault, and rape) accounted for 118 (47.4%) of all criminal charges against these 249 patients.

In looking at the offenses reported for the M.A.O.'s, murder and non-negligent manslaughter were the most frequently reported single categories of offenses in both years; followed closely by aggravated assault and burglary. But, it appears that violent crimes against persons were more characteristic of the 1965 population (66% violent crimes) as compared to the 1976 population (47% violent crimes).

IV. Ethnic Characteristics (Refer to Table 3)

In 1960, 71% of the general population in Texas was classified as Anglo-American; 16% were labelled as persons with Spanish surnames (Latin-American); and 13% were nonwhite (Negro-American). As of August 31, 1965, 71.6% of the 250 criminally charged and/or criminally committed patients were Anglo-American; while 3.2% were Latin-American and 24.8% were Negro-American.

In 1970, 86.8% of the general population in Texas was classified as Anglo-American; 0.7% were labelled as persons with Spanish surnames (Latin-American); and 12.5% were nonwhite (Negro-American). As of August 31, 1976, 47.0% of the 249 criminally charged and/or criminally committed patients were Anglo-American, while 17.3% were Latin-American and 35.7% were Negro-American.

V. Diagnosis

The pattern of diagnosis represented by the 250 criminally charged and/or criminally committed patients in Texas state mental hospitals as of August 31, 1965, included: 53.2% diagnosed as Psychotic; 14.0% Personality Disorders;

13.6% Chronic Brain Syndrome; and 10.0% diagnosed as Mentally Deficient. During this same time period the average percentage distribution of all resident patients by diagnostic categories was 58.5% Psychotic; 3.3% Personality Disorders; 25.9% Chronic Brain Syndrome; and 9.1% with Mental Deficiency (refer to Table 4A).

The pattern of diagnosis represented by the 249 criminally charged and/or criminally charged patients in Texas state mental hospitals as of August 31, 1976, included: 54.2% were Schizophrenia; 9.6% Mental Retardation; 5.6% Drug Abuse; 4.0% Neuroses; 4.0% Non-Psychotic OBS; 4.0% Psychotic OBS; and 5.2% Personality Disorder. During this same time period, the average percentage distribution of all resident patients by diagnostic categories was 47.5% Schizophrenia; 6.8% Mental Retardation; 1.4% Personality Disorder; 4.2% Non-Psychotic OBS; 4.6% Psychotic OBS; 14.2% Alcoholism; and 3.6% Transient Sit. Disturbance (refer to Table 4B).

Over 50% of the M.A.O.'s in 1965 and 1976 were characterized as Psychotic.

VI. Sex Differences and Diagnoses

In reviewing the sex of the criminally charged and/or criminally committed patients in 1965, a number of obvious differences in diagnostic groupings appear. Among females, 65.5% carried Psychotic diagnosis; 13.8% were diagnosed as Personality Disorders; 6.9% were Mentally Deficient; and 6.9% were Chronic Brain Syndrome. Among males, only 51.5% were Psychotic; 14.0% were Personality Disorders; 14.5% were Chronic Brain Syndrome; and 10.4% were Mentally Deficient (refer to Tables 5A and 6A).

In reviewing the sex of the criminally charged and/or criminally committed patients in 1976, Schizophrenia was the most commonly utilized diagnostic classification. Among female patients 55.6% had a primary diagnosis of Schizophrenia, and among males 54.1% had a primary diagnosis of Schizophrenia.

The second most commonly utilized diagnosis for males was Mental Retardation; the second most frequently utilized diagnosis for females was Neuroses (refer to Tables 5B and 6B).

It appears that females represented in the M.A.O. populations in 1965 and 1976 were characterized as psychotic more frequently than their male counterparts in each of these years.

VII. County of Residence (Refer to Table 7)

Of the 254 counties in Texas, 71 (or 28%) were listed as a county of residence for 1 or more patients under criminal charges in 1965. Harris County ranked highest with 40; Dallas with 27; Bexar and Tarrant each with 19; Jefferson with 14; and Travis with 13.

Of the 254 counties in Texas, 73 (or 29.3%) were listed as a county of residence for 1 or more patients under criminal charges and/or criminal commitment in 1976. Six patients were recorded as having their county of residence as "Unknown", and 10 patients were listed as Out of State residence. Harris County ranked highest with 47 patients; Dallas with 36; Bexar with 17; Tarrant with 11; and Travis with 10.

Of the 254 counties in Texas, six remain the largest contributors to the Maximum Security Unit. This is not surprising since these counties do represent the major metropolitan areas, and the court systems in these areas actively seek a variety of methods to deal with their caseload. Commitment to a facility as an M.A.O. is one such method. The only major population center underrepresented, El Paso, may utilize these services less frequently due to the extensive distance between Rusk, Texas, and El Paso.

VIII. Comparison with Total Resident Population

As of August 31, 1965, 1.6% of the total resident population in Texas state mental hospitals had criminal charges against them and/or they were admitted under a criminal commitment.

CONTINUED

1 of 5

As of August 31, 1976, 4.4% of the total resident population in Texas state mental hospitals had criminal charges against them and/or they were admitted under a criminal commitment.

Although the percentage of M.A.O.'s has increased in relationship to the total number of patients in Texas state mental hospitals from 1965 to 1976, it must be remembered that in actual numbers the population has declined (from 250 M.A.O.'s in 1965 to 249 M.A.O.'s in 1976).

PART II:

CHARACTERISTICS OF CRIMINALLY CHARGED AND/OR CRIMINALLY COMMITTED PATIENTS SEPARATED FROM TEXAS STATE MENTAL HOSPITALS BETWEEN SEPTEMBER 1, 1964 - AUGUST 31, 1965 AND SEPTEMBER 1, 1975 - AUGUST 31, 1976

The differences in the number of separations associated with M.A.O.'s in the Texas Department of Mental Health and Mental Retardation for the two representative years indicate very distinct changes in releases.

I. Total Separations

During the time period September 1, 1964 - August 31, 1965, 118 patients with a criminal charge and/or a criminal commitment were separated from Texas state mental hospitals. Separation was defined as the severance of the patient from the hospital by discharge, death, deportation, or transfer. Of these 118 patients, records indicate that 22 had criminal charges only against them; 26 were under criminal commitments only; and 70 indicated both criminal charges and criminal commitments.

During the period September 1, 1975 - August 31, 1976, there were 906 patients, separated from Texas state mental hospitals who were under criminal charges and/or criminal commitment.

II. Length of Stay

Criminal patients tended to spend longer periods of hospitalization as compared to non-criminal patients (refer to Table 8).

Of non-criminal patients separated from state mental hospitals between September 1, 1964 - August 31, 1965, 68.9% were separated within 90 days of admission while only 33.05% of the criminal patients had been released during this time period.

Of the 906 patients separated from Texas state mental hospitals between September 1, 1975 - August 31, 1976, 40.7% of all criminally charged and/or criminally committed patients were separated within 90 days of admission. 69.6% of all criminally charged and/or criminally committed patients were

separated within one year of admission. In comparison, 84.3% non-criminal patients who were separated within this time frame were released within 90 days of admission, while 98.3% of non-criminal patients were released within one year of admission (refer to Table 8A). The greatest number of criminal patients being separated during this time frame were from Rusk State Hospital, Austin State Hospital, Vernon Center, and Terrell State Hospital were the facilities with the next largest separations (refer to Table 8B).

It must be remembered that as a consequence of legislative changes made during 1975, all criminally charged and/or criminally committed patients must first be admitted to the MSU at RSH. This explains the much higher incidence of separations from RSH for M.A.O.'s as compared to other TDMHR facilities.

III. Length of Stay by Sex and Ethnicity

Table 9 indicates that the distribution of length of stay by ethnicity and sex was relatively similar for all ethnic and sex categories in 1965. There were no Latin females separated from the Texas Department of Mental Health and Mental Retardation state hospital system during this time frame; there were in fact only six Latin male patients separated during this time frame. Anglo-American males and females tended to be released following somewhat shorter stays in state mental hospitals than did other subtypes of criminally charged and/or criminally committed mental patients, based on sex and ethnicity.

Table 9A indicates that the distribution of length of stay by ethnicity and sex was relatively similar for all ethnic and sex categories in 1976.

IV. Length of Stay by Type of Crime

Length of stay was also associated with the type of crime committed. For the more serious crimes, patients were less frequently released before a 90-day stay in a facility. Less serious types of crimes were associated with shorter lengths of stay (e.g. Alcoholism generally less than 90 days; Auto Theft less

than 90 days; Embezzlement and Fraud less than 180 days; and Forgery and Counterfeiting less than 180 days (refer to Tables 12 and 12A).

V. County of Residence

Table 14 indicates the county of residence of the patients separated from state mental hospitals during 1965. As indicated, those counties most frequently reported as residence were: Travis, Harris, Dallas, Bexar, and Tarrant.

Of those patients separated during 1976, the greatest number of clients were from the following counties: Harris, Dallas, Travis, Tarrant, and Bexar (refer to Table 14A).

These counties fairly well represent the population centers in Texas.

CONCLUSION

This review has provided the first systematically collected data on two separate populations of M.A.O.'s as they have been represented within the TDMHMR at two distinct periods of time. As the comparison sections of this chapter reflect, there have been some definite changes reflected in the characteristics of these patients (e.g., greater number of M.A.O.'s being admitted, more women being admitted and far more M.A.O.'s being discharged).

This review also demonstrates the need to systematically collect demographic, psychological, and criminal justice data as well as final disposition and follow-up information on all M.A.O.'s. Because this is an area (the care, treatment, and evaluation of forensic patients) in which mental health professionals have the potential to make a major impact on M.A.O.'s individual lives and because criminal justice and corrections receive a high level of attention from government officials, it is hoped that data such as presented here can effectively contribute to the program planning and management of forensic psychiatric services. It is evident, for example, that the large increase in separations of M.A.O.'s from the Texas Department of Mental Health Mental Retardation (906 in 1976 vs. 118 in 1965) suggests the need for an increase in community mental health services, as well as professional staff trained to deal with the unique and often frustrating problems of the M.A.O.

Only with continual monitoring and evaluation of the characteristics, needs, and problems associated with this population, can a viable system of forensic services be accomplished.

TABLE 1

DISTRIBUTION OF PATIENTS UNDER CRIMINAL CHARGES AND/OR UNDER CRIMINAL COMMITMENT
IN TEXAS STATE MENTAL HOSPITAL ON AUGUST 31, 1965 AND AUGUST 31, 1976 BY AGE AND SEX

Age Group	August 31, 1965						August 31, 1976					
	Males		Females		Totals		Males		Females		Totals	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
14-19	12	5.4	0	0.0	12	4.8	17	7.7	0	0.0	17	6.8
20-24	24	10.9	0	0.0	24	9.6	47	21.0	9	33.3	56	22.6
25-29	26	11.8	4	13.8	30	12.0	42	18.9	6	22.3	48	19.4
30-34	22	10.0	4	13.8	26	10.4	28	12.6	3	11.1	31	12.4
35-39	27	12.2	3	10.3	30	12.0	17	7.7	2	7.4	19	7.6
40-44	20	9.0	2	6.9	22	8.8	11	5.0	3	11.1	14	5.6
45-49	19	8.6	4	13.8	23	9.2	16	7.2	1	3.7	17	6.8
50-54	13	5.9	5	17.2	18	7.2	7	3.2	0	0.0	7	2.8
55-59	14	6.3	1	3.4	15	6.0	14	6.3	1	3.7	15	6.0
60-64	11	5.0	2	6.9	13	5.2	11	5.0	1	3.7	12	4.8
65+	24	10.9	2	6.9	26	10.4	12	5.4	1	3.7	13	5.2
Unknown	9	4.1	2	6.9	11	4.4	0	0.0	0	0.0	0	0.0
TOTAL	221	100.1	29	99.9	250	100.0	222	100.0	27	100.0	249	100.0

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TABLE 2
 DISTRIBUTION OF ALL PATIENTS UNDER CRIMINAL CHARGES AND/OR UNDER CRIMINAL COMMITMENT
 IN STATE MENTAL HOSPITALS ON AUGUST 31, 1965 AND AUGUST 31, 1976 BY INSTITUTION, ETHNICITY, AND SEX

Institution	August 31, 1965								Total	%
	Anglo Male	Anglo Female	Black Male	Black Female	Latin Male	Latin Female	Other Male	Other Female		
Austin State Hospital	13	4	3	3	2	0	0	0	25	10.0
Big Spring State Hospital	0	0	0	0	1	0	0	0	1	0.4
Kerrville State Hospital	3	0	0	0	0	0	0	0	3	1.2
Rusk State Hospital	124	6	41	5	0	0	0	0	176	70.4
San Antonio State Hospital	4	2	0	1	4	1	0	0	11	4.8
Terrell State Hospital	14	4	4	2	0	0	0	0	24	9.6
TRIMS Houston State Psychiatric Institute	0	0	1	0	0	0	0	0	1	0.4
Vernon Center	0	0	0	0	0	0	0	0	0	0.0
Wichita Falls State Hospital	4	1	2	0	0	0	0	1	8	3.2
TOTALS	162	17	51	11	7	1	1	0	250	
%	64.8	6.8	20.4	4.4	2.8	0.4	0.4	0.0		100.0
	August 31, 1976									
Austin State Hospital	3	0	5	0	0	0	0	0	8	3.2
Big Spring State Hospital	0	0	0	0	1	0	0	0	1	.4
Kerrville State Hospital	0	0	0	0	0	0	0	0	0	.0
Rusk State Hospital	78	7	65	13	31	2	0	0	196	78.8
San Antonio State Hospital	2	0	0	0	6	2	0	0	10	4.0
Terrell State Hospital	5	1	2	1	0	0	0	0	9	3.6
TRIMS Houston State Psychiatric Institute	0	0	0	0	0	0	0	0	0	0
Vernon Center	9	0	1	0	1	0	0	0	11	4.4
Wichita Falls State Hospital	11	1	2	0	0	0	0	0	14	5.6
TOTALS	108	9	75	14	39	4	0	0	249	
%	43.4	3.6	30.1	5.6	15.7	1.6	0.0	0.0		100

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TABLE 3A

DISTRIBUTION OF PATIENTS UNDER CRIMINAL CHARGES AND/OR UNDER CRIMINAL COMMITMENT
IN TEXAS STATE MENTAL HOSPITALS ON AUGUST 31, 1965 AND AUGUST 31, 1976 BY TYPE OF CRIMINAL CHARGE, ETHNICITY, AND SEX

August 31, 1965

Criminal Charges	Anglo Male	Anglo Female	Black Male	Black Female	Latin Male	Latin Female	Other Male	Other Female	Total
Murder and Non-Negligent Manslaughter	52	7	11	6	1	1	0	0	78
Manslaughter by Negligence	5	1	2	1	0	0	0	0	9
Rape	10	0	5	0	1	0	0	0	16
Robbery	12	0	2	0	1	0	0	0	15
Aggravated Assault	17	2	10	1	0	0	0	0	30
Burglary - Breaking and Entering	16	1	7	0	3	0	1	0	28
Larceny - Theft (Except Auto Theft)	12	1	4	1	0	0	0	0	18
Auto Theft	5	0	1	0	0	0	0	0	6
Other Assaults	12	2	5	1	0	0	0	0	20
17 Forgery and Counterfeiting	3	1	2	0	0	0	0	0	6
Embezzlement and Fraud	1	1	0	1	1	0	0	0	4
Stolen Property-Buying, Receiving, Possessing	0	0	0	0	0	0	0	0	0
Weapons - Carrying, Possessing	0	0	1	0	0	0	0	0	1
Prostitution and Commercialized Vice	0	0	0	0	0	0	0	0	0
Sex Offenses-Except Rape, Prostitution, & Commercialized Vice	9	0	0	0	0	0	0	0	9
Alcoholism (Charges connected with Narcotics)	4	1	0	0	0	0	0	0	5
Arson	3	0	1	0	0	0	0	0	4
Kidnapping	1	0	0	0	0	0	0	0	1
Attempted Murder	0	0	0	0	0	0	0	0	0
Criminal Trespassing	0	0	0	0	0	0	0	0	0
Criminal Mischief	0	0	0	0	0	0	0	0	0
TOTALS	162	17	51	11	7	1	1	0	250

TABLE 3B

DISTRIBUTION OF PATIENTS UNDER CRIMINAL CHARGES AND/OR UNDER CRIMINAL COMMITMENT
IN TEXAS STATE MENTAL HOSPITALS ON AUGUST 31, 1965 AND AUGUST 31, 1976 BY TYPE OF CRIMINAL CHARGE, ETHNICITY, AND SEX

August 31, 1976

Criminal Charges	Anglo Male	Anglo Female	Black Male	Black Female	Latin Male	Latin Female	Other Male	Other Female	Total
Murder and Non-Negligent Manslaughter	31	2	15	1	9	1	0	0	59
Manslaughter by Negligence	0	0	0	1	0	0	0	0	1
Rape	2	0	6	0	4	0	0	0	12
Robbery	8	1	9	0	3	0	0	0	21
Aggravated Assault	9	1	5	5	4	0	0	0	24
Burglary - Breaking and Entering	8	1	12	0	6	0	0	0	27
Larceny - Theft (Except Auto Theft)	6	0	5	3	1	0	0	0	15
Auto Theft	10	0	7	0	6	1	0	0	24
Other Assaults	1	0	3	0	1	0	0	0	5
Forgery and Counterfeiting	2	1	1	1	0	0	0	0	5
Embezzlement and Fraud	0	0	1	0	0	0	0	0	1
Stolen Property-Buying, Receiving, Possessing	0	0	0	0	0	0	0	0	0
Weapons - Carrying, Possessing	1	1	0	0	0	0	0	0	0
Prostitution and Commercialized Vice	0	0	0	0	0	0	0	0	0
Sex Offenses - Except Rape, Prostitution, and Commercialized Vice	7	0	4	0	3	0	0	0	14
Alcoholism (Charges Connected with Narcotics)	9	0	0	1	0	1	0	0	11
Arson	1	0	0	0	0	0	0	0	1
Kidnapping	1	0	2	0	1	0	0	0	4
Attempted Murder	10	0	4	1	1	1	0	0	17
Criminal Trespassing	0	0	1	0	0	0	0	0	1
Criminal Mischief	2	2	0	1	0	0	0	0	5
TOTALS	108	9	75	14	39	4	0	0	249

TABLE 4A
 DISTRIBUTION OF PATIENTS IN STATE MENTAL HOSPITALS
 UNDER CRIMINAL CHARGES AND/OR CRIMINAL COMMITMENT ON AUG. 31, 1965 BY TYPE
 OF CRIMINAL CHARGE AND PRIMARY DIAGNOSIS AT ADMISSION

Type of Criminal Charge	TYPE OF DIAGNOSIS								Total	%	
	No Diagnosis	Acute Brain	Chronic Brain	Psychotic	Psychophysio- logic	Psychoneurotic	Personality	Transient			Mental Deficiency
Murder and Non- Negligent Manslaughter	2	-	21	41	-	3	5	2	4	78	31.2
Manslaughter By Negligence	1	-	-	8	-	-	-	-	-	9	3.6
Rape	2	-	1	5	-	-	5	-	3	16	6.4
Robbery	2	-	2	6	-	-	5	-	-	15	6.0
Aggravated Assault	2	-	3	18	-	1	4	-	2	30	12.0
Burglary- Breaking and Entering	-	-	1	13	-	1	4	-	9	28	11.2
Larceny - Theft (Except Auto Theft)	1	-	1	9	-	-	4	-	3	18	7.2
Auto Theft	1	-	-	3	-	-	-	1	1	6	2.4
Other Assaults	-	-	2	14	1	1	-	-	2	20	8.0
Forgery and Counterfeiting	-	-	-	4	-	-	2	-	-	6	2.4

TABLE 4A (CONT'D)

Type of Criminal Charge	No Diagnosis	Acute Brain	Chronic Brain	Psychotic	Psychophysio- Logic	Psychoneurotic	Personality	Transient	Mental Deficiency	TOTAL	%
1 Embezzlement and Fraud	1	-	-	2	-	-	1	-	-	4	1.6
Stolen Property - Buying, Receiving, Possessing	-	-	-	-	-	-	-	-	-	0	0
Weapons - Carrying, Possessing	1	-	-	-	-	-	-	-	-	1	0.4
Prostitution and Commercialized Vice	-	-	-	-	-	-	-	-	1	0	0
20 Sex Offenses (Except Rape, Prostitution, and Commercialized Vice)	-	-	3	3	-	-	2	-	-	9	3.6
Alcoholism (Charges Connected with Narcotics)	-	-	-	2	-	-	3	-	-	5	2.0
Arson	-	-	-	4	-	-	-	-	-	4	1.6
Kidnapping	-	-	-	1	-	-	-	-	-	1	0.4
TOTAL	13	0	34	133	1	6	35	3	25	250	
%	5.2	0	13.6	53.2	0.4	2.4	14.0	1.2	10.0		100

TABLE 4B (CONT'D)

	Schizophrenia	Other Functional Psychosis	Psychotic OBS	Non-Psychotic OBS	Neuroses	Alcoholism	Drug Abuse	Mental Retardation	Personality Disorder	Transient Situational Disturbance	Other	No Mental Disorder	Undiagnosed	TOTALS
Weapons - Carrying, Possessing	1	1	0	0	0	0	0	0	0	0	0	0	0	2
Prostitution and Commercialized Vice	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Sex Offenses - Except Rape, Prostitution, and Commercialized Vice	6	0	1	1	0	0	0	3	1	0	1	1	0	14
Alcoholism (Charges Connected with Narcotics)	3	0	0	0	0	4	4	0	0	0	0	0	0	11
Arson	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Kidnapping	2	0	1	0	0	0	0	1	0	0	0	0	0	4
Attempted Murder	8	0	1	3	1	2	0	0	1	0	0	0	1	17
Criminal Trespassing	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Criminal Mischief	5	0	0	0	0	0	0	0	0	0	0	0	0	5
TOTALS	135	8	10	10	10	9	14	24	13	0	1	6	9	249

TABLE 5A (CONT'D)

Type of Criminal Charge	No Diagnosis	Acute Brain	Chronic Brain	Psychotic	Psychophysio-logic	Psychoneu-rotic	Personality	Transient	Mental Deficiency	TOTAL	%
Weapons - Carrying, Possessing	1	-	-	-	-	-	-	-	-	1	0.5
Prostitution and Commercialized Vice	-	-	-	-	-	-	-	-	-	0	0
Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	-	-	3	3	-	-	2	-	1	9	4.1
Alcoholism (Charges Connected with Narcotics)	-	-	-	2	-	-	2	-	-	4	1.8
Arson	-	-	-	4	-	-	-	-	-	4	1.8
Kidnapping	-	-	-	1	-	-	-	-	-	1	0.5
TOTAL	13	0	32	114	1	5	31	2	23	221	
%	5.9	0	14.5	51.5	0.5	2.3	14.0	0.9	10.4		100

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TABLE 5B

DISTRIBUTION OF MALE PATIENTS IN STATE MENTAL HOSPITALS UNDER CRIMINAL CHARGES AND/OR CRIMINAL COMMITMENT ON AUGUST 31, 1976 BY TYPE OF CRIMINAL CHARGE AND PRIMARY DIAGNOSIS AT ADMISSION

	Schizophrenia	Other Functional Psychosis	Psychotic OBS	Non-Psychotic OBS	Neuroses	Alcoholism	Drug Abuse	Mental Retardation	Personality Disorder	Transient Situational Disturbance	Other	No Mental Disorder	Undiagnosed	TOTALS
Murder and Non-Negligent Manslaughter	38	1	1	2	2	0	1	4	2	0	0	1	3	55
Manslaughter by Negligence	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rape	7	0	0	0	1	0	0	3	1	0	0	0	0	12
Robbery	6	2	1	0	1	0	3	4	0	0	0	2	1	20
Aggravated Assault	10	1	1	0	0	1	1	0	2	0	0	0	2	18
Burglary - Breaking and Entering	12	0	2	3	1	1	2	3	0	0	0	1	1	26
Larceny - Theft (Except Auto Theft)	7	1	1	0	0	0	0	4	1	0	0	0	1	12
Auto Theft	14	1	0	1	0	1	1	3	2	0	0	0	0	23
Other Assaults	4	1	0	0	0	0	0	0	0	0	0	0	0	5
Forgery and Counterfeiting	0	0	0	0	0	0	2	0	1	0	0	0	0	3
Embezzlement and Fraud	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Stolen Property - Ruying, Receiving, Possessing	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 5B (CONT'D)

	Schizophrenia	Other Functional Psychosis	Psychotic OBS	Non-Psychotic OBS	Neuroses	Alcoholism	Drug Abuse	Mental Retardation	Personality Disorder	Transient Situational Disorder	Other	No Mental Disorder	Undiagnosed	TOTALS
Weapons - Carrying, Possessing	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Prostitution and Commercialized Vice	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sex Offenses - Except Rape, Prostitution and Commercialized Vice	6	0	1	1	0	0	0	3	1	0	1	1	0	14
Alcoholism (Charges Connected with Narcotics)	2	0	0	0	0	4	3	0	0	0	0	0	0	9
Arson	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Kidnapping	2	0	1	0	0	0	0	1	0	0	0	0	0	4
Attempted Murder	7	0	1	3	1	2	0	0	0	0	0	0	1	15
Criminal Trespassing	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Criminal Mischief	2	0	0	0	0	0	0	0	0	0	0	0	0	2
TOTALS	120	7	9	10	6	9	13	22	11	0	1	5	9	222

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TABLE 6A (CONT'D)

Type of Criminal Charge	No Diagnosis	Acute Brain	Chronic Brain	Psychotic	Psychophysio- logic	Psychoneurotic	Personality	Transient	Mental Deficiency	TOTAL	%
Weapons - Carrying, Possessing	-	-	-	-	-	-	-	-	-	-	0
Prostitution and Commercialized Vice	-	-	-	-	-	-	-	-	-	-	0
Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	-	-	-	-	-	-	-	-	-	-	0
Alcoholism (Charges Connected with Narcotics)	-	-	-	-	-	-	1	-	-	1	3.4
Arson	-	-	-	-	-	-	-	-	-	-	0
Kidnapping	-	-	-	-	-	-	-	-	-	-	0
TOTALS	-	-	2	19	-	1	4	1	2	29	
%	0	0	6.9	65.6	0	3.4	13.8	3.4	6.9		100

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TABLE 6B (CONT'D)

	Schizophrenia	Other Functional Psychosis	Psychotic OBS	Non-Psychotic OBS	Neuroses	Alcoholism	Drug Abuse	Mental Retardation	Personality Disorder	Transient Situational Disturbance	Other	No Mental Disorder	Undiagnosed	TOTALS
Weapons - Carrying, Possessing	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Prostitution and Commercialized Vice	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sex Offenses - Except Rape, Prostitution, and Commercialized Vice	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alcoholism (Charges Connected with Narcotics)	1	0	0	0	0	0	1	0	0	0	0	0	0	2
Arson	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kidnapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Attempted Murder	1	0	0	0	0	0	0	0	1	0	0	0	0	2
Criminal Trespassing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Criminal Mischief	3	0	0	0	0	0	0	0	0	0	0	0	0	3
TOTALS	15	1	1	0	4	0	1	2	2	0	0	1	0	27

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TABLE 7

DISTRIBUTION FOR 1965 AND 1976 BY COUNTY OR ORIGIN OF:
 PATIENTS IN STATE MENTAL HOSPITALS UNDER CRIMINAL CHARGES AND/OR
 CRIMINAL COMMITMENTS AND PATIENTS IN STATE MENTAL HOSPITALS NOT UNDER CRIMINAL CHARGES

County	(A) Patients Under Criminal Charges And/Or Criminal Commitment		(B) Patients Not Under Criminal Charges And/Or Criminal Commitment	
	1965	1976	1965	1976
Anderson	0	1	66	24
Andrews	0	0	6	5
Angelina	2	0	60	33
Aransas	1	0	13	8
Archer	0	0	12	6
Armstrong	0	0	2	0
Atascosa	0	0	36	10
Austin	0	0	39	7
Bailey	0	0	13	3
Bandera	0	0	19	20
Bastrop	0	0	58	18
Baylor	0	0	17	5
Bee	1	0	35	9
Bell	3	5	117	40
Bexar	19	17	1,315	410
Blanco	0	0	11	2
Borden	0	0	2	1
Bosque	1	0	22	4
Bowie	4	0	120	30
Brazoria	0	1	58	14
Brazos	0	1	59	10
Brewster	0	0	9	7
Briscoe	0	0	4	1
Brooks	0	0	16	4
		31		

County	(A) Patients Under Criminal Charges And/Or Criminal Commitment		(B) Patients Not Under Criminal Charges And/Or Criminal Commitment	
	1965	1976	1965	1976
Brown	0	1	54	22
Burleson	0	0	36	10
Burnet	0	0	16	4
Caldwell	2	1	46	18
Calhoun	0	1	17	4
Callahan	0	0	19	5
Cameron	0	6	190	44
Camp	0	1	18	5
Carson	1	0	8	3
Cass	1	0	66	19
Castro	0	1	2	1
Chambers	0	1	5	6
Cherokee	0	1	145	42
Childress	0	1	17	9
Clay	0	0	18	8
Cochran	0	0	8	5
Coke	0	0	5	2
Coleman	0	0	35	8
Collin	1	0	104	35
Collingsworth	0	0	14	2
Colorado	0	1	29	10
Comal	0	0	38	11
Comanche	1	1	33	11
Concho	0	0	8	1
Cooke	0	2	71	17
Coryell	0	3	30	6
Cottle	0	0	15	7
		32		

County	(A) Patients Under Criminal Charges And/Or Criminal Commitment		(B) Patients Not Under Criminal Charges And/Or Criminal Commitment	
	1965	1976	1965	1976
Crane	0	0	2	1
Crockett	0	0	4	7
Crosby	0	0	16	2
Culberson	0	0	1	0
Dallam	1	0	9	2
Dallas	27	36	1,458	636
Dawson	0	0	29	10
Deaf Smith	0	1	11	5
Delta	0	0	32	7
Denton	2	0	88	37
De Witt	0	0	65	19
Dickens	0	0	14	3
Dimmit	0	0	8	6
Donley	0	0	16	3
Duval	0	0	20	5
Eastland	0	0	58	18
Ector	1	0	56	35
Edwards	0	0	4	1
Ellis	1	0	127	31
El Paso	4	8	310	118
Erath	0	0	44	13
Falls	0	0	82	18
Fannin	1	0	90	25
Fayette	1	0	61	12
Fisher	0	0	14	4
Floyd	0	0	20	4
Foard	0	0	6	4
		33		

County	(A) Patients Under Criminal Charges And/Or Criminal Commitment		(B) Patients Not Under Criminal Charges And/Or Criminal Commitment	
	1965	1976	1965	1976
Fort Bend	1	0	55	17
Franklin	0	0	11	4
Freestone	0	0	31	6
Frio	0	0	11	2
Gaines	1	0	8	8
Galveston	4	3	231	34
Garza	0	0	10	2
Gillespie	0	0	17	26
Glasscock	0	0	0	0
Goliad	0	0	7	2
Gonzales	0	1	62	18
Gray	0	0	54	14
Grayson	1	1	163	60
Gregg	2	0	91	53
Grimes	1	0	45	12
Guadalupe	0	3	49	16
Hale	0	1	36	22
Hall	0	0	29	11
Hamilton	0	0	36	4
Hansford	0	0	2	1
Hardeman	0	0	20	16
Hardin	1	1	29	11
Harris	40	47	1,463	534
Harrison	3	0	79	28
Hartley	0	0	1	0
Haskell	2	1	16	10
Hays	1	0	50	7
Hemphill	0	0	4	3
		34		

County	(A) Patients Under Criminal Charges And/Or Criminal Commitment		(B) Patients Not Under Criminal Charges And/Or Criminal Commitment	
	1965	1976	1965	1976
Henderson	4	0	59	20
Hidalgo	3	7	188	42
Hill	0	1	81	17
Hockley	1	0	12	5
Hood	0	0	12	2
Hopkins	0	0	58	27
Houston	5	1	39	16
Howard	3	1	90	61
Hudspeth	0	0	1	1
Hunt	1	2	150	37
Hutchinson	1	0	28	16
Irion	0	0	3	0
Jack	0	0	20	8
Jackson	0	2	32	4
Jasper	0	0	30	10
Jeff Davis	1	0	2	0
Jefferson	14	1	239	90
Jim Hogg	0	1	9	1
Jim Wells	0	0	38	11
Johnson	1	0	59	19
Jones	2	1	38	14
Karnes	0	0	33	10
Kaufman	1	1	135	42
Kendall	0	0	10	8
Kenedy	0	0	0	0
Kent	0	0	2	0
Kerr	1	0	69	110
Kimble	0	0	17	10
		35		

County	(A) Patients Under Criminal Charges And/Or Criminal Commitment		(B) Patients Not Under Criminal Charges And/Or Criminal Commitment	
	1965	1976	1965	1976
King	0	0	1	0
Kinney	0	0	2	0
Kleberg	0	0	24	10
Knox	0	0	15	4
Lamar	1	0	95	25
Lamb	1	0	25	8
Lampasas	0	0	20	5
La Salle	1	1	13	2
Lavaca	1	0	66	14
Lee	0	1	21	5
Leon	0	0	25	6
Liberty	0	1	42	24
Limestone	0	0	88	17
Lipscomb	0	0	4	1
Live Oak	0	0	23	4
Llano	0	0	23	18
Loving	0	0	0	0
Lubbock	2	1	126	52
Lynn	0	0	8	8
McCulloch	0	0	16	4
McLennan	2	1	223	42
McMullen	0	0	2	0
Madison	0	0	20	3
Marion	0	0	17	10
Martin	0	0	6	2
Mason	0	0	6	6
Matagorda	0	0	45	19
Maverick	0	0	19	7
		36		

County	(A) Patients Under Criminal Charges And/Or Criminal Commitment		(B) Patients Not Under Criminal Charges And/Or Criminal Commitment	
	1965	1976	1965	1976
Medina	1	0	34	13
Menard	0	0	6	6
Midland	0	4	53	25
Milam	1	1	65	17
Mills	0	0	18	1
Mitchell	0	0	19	7
Montague	0	0	48	20
Montgomery	0	1	33	28
Moore	0	0	12	8
Morris	0	0	23	7
Motley	0	0	4	1
Nacogdoches	0	0	61	18
Navarro	3	0	124	22
Newton	0	0	15	5
Nolan	0	0	40	18
Nueces	3	6	214	59
Ochiltree	0	1	4	8
Oldham	0	0	2	1
Orange	1	1	53	27
Palo Pinto	0	0	62	20
Panola	0	0	34	5
Parker	0	1	56	21
Parmer	0	0	6	2
Pecos	0	0	15	12
Polk	0	1	36	15
Potter	1	3	121	37
Presidio	0	0	6	3
Rains	0	0	18	2
		37		

County	(A) Patients Under Criminal Charges		(B) Patients Not Under Criminal Charges	
	And/Or Criminal Commitment 1965	1976	And/Or Criminal Commitment 1965	1976
Randall	0	2	15	14
Reagan	0	0	5	4
Real	0	0	2	3
Red River	0	1	44	18
Reeves	0	0	18	8
Refugio	0	0	17	8
Roberts	0	0	1	0
Robertson	0	0	37	8
Rockwall	0	0	31	1
Runnels	1	0	21	10
Rusk	2	0	70	31
Sabine	0	0	17	8
San Augustine	0	1	15	5
San Jacinto	0	0	6	4
San Patricio	3	0	53	24
San Saba	0	0	18	1
Schleicher	0	0	4	4
Scurry	0	0	21	15
Shackelford	0	0	7	3
Shelby	0	1	43	15
Sherman	0	0	1	1
Smith	1	1	136	70
Somervell	0	1	8	3
Starr	0	0	17	7
Stephens	0	0	14	6
Sterling	0	0	2	0
Stonewall	1	0	4	1
Sutton	0	0	4	3
		38		

County	(A) Patients Under Criminal Charges		(B) Patients Not Under Criminal Charges	
	And/Or Criminal Commitment 1965	1976	And/Or Criminal Commitment 1965	1976
Swisher	0	1	9	4
Tarrant	19	11	689	248
Taylor	1	2	114	50
Terrell	0	0	5	0
Terry	0	0	13	5
Throckmorton	0	0	9	3
Titus	0	1	25	13
Tom Green	0	0	88	49
Travis	13	10	504	230
Trinity	0	0	10	5
Tyler	0	0	15	3
Upshur	2	0	52	16
Upton	0	0	8	5
Uvalde	0	0	26	6
Val Verde	0	0	27	11
Van Zandt	0	1	73	27
Victoria	1	1	74	14
Walker	12	0	84	27
Waller	0	0	19	5
Ward	1	1	15	5
Washington	0	0	44	7
Webb	1	1	92	19
Wharton	0	1	64	22
Wheeler	0	0	14	6
Wichita	1	1	313	180
Wilbarger	2	2	41	34
Willacy	0	0	26	5
Williamson	0	0	97	26
		39		

County	(A) Patients Under Criminal Charges And/Or Criminal Commitment		(B) Patients Not Under Criminal Charges And/Or Criminal Commitment	
	1965	1976	1965	1976
Wilson	0	0	33	6
Winkler	0	0	4	2
Wise	0	0	37	8
Wood	1	0	70	25
Yoakum	0	0	2	5
Young	0	1	39	21
Zapata	0	0	4	2
Zavala	0	1	9	0
Unknown	0	6	0	9
Out-of-State	0	10	0	54
TOTALS	250	249	15,402	5,650

TABLE 8

DISTRIBUTION OF CRIMINAL AND NON-CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD
SEPT. 1, 1964 - AUG. 31, 1965 BY LENGTH OF STAY

Length of Stay (Days)	Non-Criminal Patients	%	Criminal Patients	%
1 to 3	171	1.09	2	1.69
4 to 14	1,463	9.35	0	0.00
15 to 45	3,817	24.40	16	13.56
46 to 90	5,260	33.62	21	17.80
91 to 180	2,098	13.41	23	19.49
181 to 365	926	5.92	21	17.80
366 to 730	658	4.21	19	16.10
731 to 1826	523	3.34	15	12.71
1827 and over	727	4.65	-1	0.85
Unknown	2	.01	-	0.00
TOTAL	15,645	100.00	118	100.00

TABLE 8A

DISTRIBUTION OF CRIMINAL AND NON-CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD
SEPT. 1, 1975 - AUG. 31, 1976 BY LENGTH OF STAY

<u>Length of Stay (Days)</u>	<u>Non-Criminal Patients</u>	<u>%</u>	<u>Criminal Patients</u>	<u>%</u>
1 to 3	957	5.3	25	2.8
4 to 14	3,574	19.7	89	9.8
15 to 45	6,125	33.8	121	13.4
46 to 90	4,623	25.5	133	14.7
91 to 180	1,846	10.2	120	13.2
181 to 365	704	3.8	142	15.7
366 to 730	258	1.4	127	14.0
731 to 1826	42	.2	90	9.9
1827 and over	13	.1	59	6.5
Unknown				
TOTAL	<u>18,142</u>	<u>100.00</u>	<u>906</u>	<u>100.0</u>

TABLE 8B

DISTRIBUTION OF CRIMINAL PATIENTS SEPARATED FROM STATE MENTAL HOSPITALS
 DURING PERIOD SEPT. 1, 1975 - AUG. 31, 1976
 BY LENGTH OF STAY AND FACILITY

Length of Stay (Days)	Austin S.H.	Big Spring S.H.	Kerrville S.H.	Rio Grande Ctr.	Rusk S.H.	San Antonio S.H.	Terrell S.H.	Trims Inst.	Vernon Ctr.	Wichita Falls S.H.	TOTALS
1 to 3	18	0	0	2	1	1	1	0	0	2	25
4 to 14	33	0	3	4	29	8	3	0	3	6	89
15 to 45	14	2	3	1	62	11	6	2	5	15	121
46 to 90	14	3	5	0	65	9	13	0	13	11	133
91 to 180	5	1	0	0	93	4	4	0	11	2	120
43 181 to 365	9	1	0	0	109	0	5	0	16	2	142
366 to 730	2	1	0	0	119	1	2	0	0	2	127
731 to 1826	0	0	0	0	85	0	2	0	0	3	90
1827 and over	2	0	0	0	50	0	5	0	0	2	59
Unknown											
TOTAL	97	8	11	7	613	34	41	2	48	45	906

TABLE 9

DISTRIBUTION OF ALL CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD
SEPT. 1, 1964 - AUG. 31, 1965 WITH CHARGE AND/OR COMMITMENT BY LENGTH
OF STAY, ETHNICITY, AND SEX

Length of Stay (Days)	TOTAL	Anglo Male	Anglo Female	Negro Male	Negro Female	Latin Male	Latin Female	Other Male	Other Female
	1	2	3	4	5	6	7	8	
1 to 3	2	2	-	-	-	-	-	-	-
4 to 14	-	-	-	-	-	-	-	-	-
15 to 45	16	13	3	-	-	-	-	-	-
46 to 90	21	14	2	2	-	3	-	-	-
91 to 180	23	14	1	3	4	1	-	-	-
181 to 365	21	13	1	4	1	2	-	-	-
366 to 730	19	13	-	4	2	-	-	-	-
731 to 1826	15	10	-	5	-	-	-	-	-
1826 and over	1	1	-	-	-	-	-	-	-
TOTAL	118	80	7	18	7	6	-	-	-

TABLE 9A

DISTRIBUTION OF ALL CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD
SEPT. 1, 1975 - AUG. 31, 1976 WITH CHARGE AND/OR COMMITMENT
BY LENGTH OF STAY, ETHNICITY, AND SEX

Length of Stay (Days)	TOTAL	Anglo Male	Anglo Female	Negro Male	Negro Female	Latin Male	Latin Female
	1 to 3	25	19	2	1	0	3
4 to 14	89	58	6	11	2	12	0
15 to 45	121	65	10	25	6	14	1
46 to 90	133	65	11	36	2	17	2
91 to 180	120	54	8	36	8	13	1
181 to 365	142	68	5	46	8	15	0
366 to 730	127	48	1	51	4	21	2
731 to 1826	90	44	1	25	0	18	2
1827 and over	59	38	0	19	1	1	0
TOTALS	906	459	44	250	31	114	8

TABLE 10

DISTRIBUTION OF ALL CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING
PERIOD SEPT. 1, 1964 - AUG. 31, 1965 WITH
CHARGE AND/OR COMMITMENT BY LENGTH OF STAY AND
PRIMARY DIAGNOSIS AT ADMISSION

LENGTH OF STAY

Type of Diagnosis	1 to 3 Days	4 to 14 Days	15 to 45 Days	46 to 90 Days	91 to 180 Days	181 to 365 Days	366 to 730 Days	731 to 1826 Days	1827 & Over Days	To- tal	%
No Diagnosis	-	-	2	-	-	1	-	-	-	3	2.5
Acute Brain	-	-	-	-	-	-	-	-	-	-	0
Chronic Brain	-	-	1	2	1	3	2	3	-	12	10.2
Psychotic	1	-	7	5	13	8	11	7	1	53	44.9
Psychophy- siologic	-	-	-	-	-	-	-	-	-	-	0
Psychoneurotic	-	-	-	1	2	-	-	1	-	4	3.4
Personality	1	-	6	13	7	6	5	1	-	39	33.1
Transient	-	-	-	-	-	1	-	-	-	1	.8
Mental Deficiency	-	-	-	-	-	2	1	3	-	6	5.1
TOTALS	2	-	16	21	23	21	19	15	1	118	
%	1.7	0	13.6	17.8	19.5	17.8	16.1	12.7	.8	100	

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TABLE 10A

DISTRIBUTION OF ALL CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING
PERIOD SEPT. 1, 1975 - AUG. 31, 1976 WITH
CHARGE AND/OR COMMITMENT BY LENGTH OF STAY AND
PRIMARY DIAGNOSIS AT ADMISSION

LENGTH OF STAY

Type of Diagnosis	1 to 3 Days	4 to 14 Days	15 to 45 Days	46 to 90 Days	91 to 180 Days	181 to 365 Days	366 to 730 Days	731 to 1826 Days	1827 and over Days	To- tal	%
Schizophrenia	2	18	30	38	42	68	84	57	37	376	
Other Func. Psychosis	1	1	3	4	3	2	2	0	1	17	
Psychotic OBS	0	2	1	1	4	3	1	2	3	17	
Non-Psychotic OBS	0	2	5	3	6	5	3	3	5	32	
Neuroses	0	4	7	2	2	3	0	0	0	18	
Alcoholism	8	17	27	21	9	6	3	5	0	96	
Drug Abuse	7	10	8	7	16	23	3	1	0	75	
Mental Retardation	2	10	6	13	16	10	12	17	10	96	
Personality Disorder	3	10	20	18	9	13	10	2	2	87	
Trans. Sit. Beh. Disturbance	0	0	3	1	2	0	0	0	0	6	
Other	0	1	0	0	0	0	0	0	0	1	
No Mental Disorder	0	13	25	9	11	9	9	3	1	80	
Undiagnosed	2	1	1	1	0	0	0	0	0	5	
TOTALS	25	89	136	118	120	142	127	90	59	906	

TABLE 11

DISTRIBUTION OF ALL CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD
SEPT. 1, 1964 - AUG. 31, 1965 WITH CHARGE AND/OR COMMITMENT
BY TYPE OF CRIMINAL CHARGE, ETHNICITY, AND SEX

Type of Criminal Charge	TOTAL	Anglo Male 1	Anglo Female 2	Negro Male 3	Negro Female 4	Latin Male 5	Latin Female 6	Other Male 7	Other Female 8
Murder and Non-Negligent Manslaughter	14	9	1	3	1	-	-	-	-
Manslaughter by Negligence	10	-	1	-	-	-	-	-	-
Rape	9	8	-	-	-	1	-	-	-
Robbery	4	3	-	1	-	-	-	-	-
Aggravated Assault	8	6	-	2	-	-	-	-	-
Burglary - Breaking and Entering	13	9	-	3	-	1	-	-	-
Larceny - Theft (Except Auto Theft)	7	4	-	1	2	-	-	-	-
Auto Theft	4	3	1	-	-	-	-	-	-
Other Assaults	7	5	-	1	1	-	-	-	-
Forgery and Counterfeiting	9	5	1	2	1	-	-	-	-
Embezzlement and Fraud	3	1	2	-	-	-	-	-	-
Stolen Property - Buying, Receiving, Possessing	2	1	1	-	-	-	-	-	-
Weapons - Carrying, Possessing	0	-	-	-	-	-	-	-	-
Prostitution and Commercialized Vice	0	-	-	-	-	-	-	-	-
Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	5	4	-	-	-	1	-	-	-

TABLE 11 (CONT'D)

Type of Criminal Charge	TOTAL	Anglo Male 1	Anglo Female 2	Negro Male 3	Negro Female 4	Latin Male 5	Latin Female 6	Other Male 7	Other Female 8
Alcoholism (Charges Connected with Narcotics)	4	4	-	-	-	-	-	-	-
Arson	2	1	-	1	-	-	-	-	-
Kidnapping	0	-	-	-	-	-	-	-	-
Patients Under Criminal Commitments with No Charges	26	17	0	4	2	3	0	0	0
TOTALS	118	80	7	18	7	6	0	0	0
%	100	67.8	5.9	15.3	5.9	5.1	0	0	0

TABLE 11A

DISTRIBUTION OF ALL CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD
SEPT. 1, 1975 - AUG. 31, 1976 WITH CHARGE AND/OR COMMITMENT
BY TYPE OF CRIMINAL CHARGE, ETHNICITY, AND SEX

Type of Criminal Charge	TOTAL	Anglo Male	Anglo Female	Negro Male	Negro Female	Latin Male	Latin Female
Murder and Non-Negligent Manslaughter	148	80	11	27	9	20	1
Manslaughter by Negligence	0	0	0	0	0	0	0
Rape	44	28	0	12	0	4	0
Robbery	72	27	2	30	2	11	0
Aggravated Assault	69	30	1	24	4	10	0
Burglary - Breaking and Entering	136	58	3	53	3	19	0
Larceny - Theft (Except Auto Theft)	67	32	5	23	4	2	1
Auto Theft	51	24	0	19	0	6	2
Other Assaults	30	20	1	5	1	3	0
Forgery and Counterfeiting	29	13	4	7	3	2	0
Embezzlement and Fraud	2	1	1	0	0	0	0
Stolen Property - Buying, Receiving, Possessing	0	0	0	0	0	0	0
Weapons - Carrying, Possessing	10	3	0	4	0	2	1
Prostitution and Commercialized Vice	1	0	0	0	1	0	0
Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	26	18	0	5	0	3	0

TABLE 11A (CONT'D)

Type of Criminal Charge	TOTAL	Anglo Male	Anglo Female	Negro Male	Negro Female	Latin Male	Latin Female
Alcoholism (Charges Connected with)							
Narcotics	117	77	13	13	0	12	2
Arson	18	8	0	1	1	8	0
Kidnapping	5	2	0	1	0	2	0
Attempted Murder	46	22	0	16	2	5	1
Criminal Trespassing	3	2	0	0	0	1	0
Criminal Mischief	32	14	3	10	1	4	0
TOTALS	906	459	44	250	31	114	8

TABLE 12

DISTRIBUTION OF PATIENTS SEPARATED FROM STATE MENTAL
HOSPITALS DURING PERIOD SEPT. 1, 1964 - AUG. 31, 1965
WITH CRIMINAL CHARGES AND/OR CRIMINAL COMMITMENTS,
BY CRIMINAL CHARGE AND LENGTH OF STAY

Type of Criminal Charge	LENGTH OF STAY										Total	%
	1 to 3 Days	4 to 14 Days	15 to 45 Days	46 to 90 Days	91 to 180 Days	181 to 365 Days	366 to 730 Days	731 to 1826 Days	1827 and Over Days			
Murder and Non-Negligent Manslaughter	-	-	-	-	2	2	3	6	1	14	11.9	
Manslaughter by Negligence	-	-	-	-	1	-	-	-	-	1	.8	
Rape	-	-	-	2	-	2	4	1	-	9	7.6	
Robbery	-	-	-	3	-	-	1	-	-	4	3.4	
Aggravated Assault	1	-	-	-	2	3	-	2	-	8	6.8	
Burglary - Breaking and Entering	-	-	1	4	2	3	2	1	-	13	11.1	
Larceny - Theft (Except Auto Theft)	1	-	2	1	3	-	-	-	-	7	5.9	
Auto Theft	-	-	2	2	-	-	-	-	-	4	3.4	
Other Assaults	-	-	-	-	2	2	1	2	-	7	5.9	
Forgery and Counterfeiting	-	-	3	1	4	-	1	-	-	9	7.6	
Embezzlement and Fraud	-	-	1	1	1	-	-	-	-	3	2.5	
Stolen Pro- perty - Buying, Receiving, Possessing	-	-	1	1	-	-	-	-	-	2	1.7	

TABLE 12 (CONT'D)

Type of Criminal Charge	1 to 3 Days	4 to 14 Days	15 to 45 Days	46 to 90 Days	91 to 180 Days	181 to 365 Days	366 to 730 Days	731 to 1826 Days	1827 and Over Days	Total	%
Weapons - Carrying, Possessing	-	-	-	-	-	-	-	-	-	0	1.7
Prostitution and Commercialized Vice	-	-	-	-	-	-	-	-	-	0	0
Sex Offenses - Except Rape, Prostitution, and Commercialized Vice	-	-	-	1	1	2	1	-	-	5	4.2
Alcoholism (Charges Connected with)	-	-	-	2	-	1	1	-	-	4	3.4
Narcotics	-	-	-	-	-	-	1	1	-	2	1.7
Arson	-	-	-	-	-	-	-	-	-	0	0
Kidnapping	-	-	-	-	-	-	-	-	-	-	-
Patients Under Criminal Commitment But No Charges	-	-	6	3	5	6	4	2	-	26	22.1
TOTAL	2	-	16	21	23	21	19	15	1	118	
%	1.7	0	13.6	17.8	19.5	17.8	16.1	12.7	.8		100

TABLE 12A

DISTRIBUTION OF PATIENTS SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD SEPT. 1, 1975 - AUG. 31, 1976 WITH CRIMINAL CHARGES AND/OR CRIMINAL COMMITMENTS, BY CRIMINAL CHARGE AND LENGTH OF STAY

Type of Criminal Charge	LENGTH OF STAY										%
	1 to 3 Days	4 to 14 Days	15 to 45 Days	46 to 90 Days	91 to 180 Days	181 to 365 Days	366 to 730 Days	731 to 1826 Days	1827 and over Days	To-tal	
Murder and Non-Negligent Manslaughter	0	11	20	14	17	16	19	28	23	148	
Manslaughter by Negligence	0	0	0	0	0	0	0	0	0	0	
Rape	0	5	6	4	4	7	3	8	7	44	
Robbery	3	5	14	7	6	14	15	5	3	72	
Aggravated Assault	1	7	6	14	12	15	12	1	1	69	
Burglary - Breaking and Entering	5	10	17	19	22	24	23	12	4	136	
Larceny - Theft (Except Auto Theft)	0	6	6	12	13	14	8	6	2	67	
Auto Theft	1	4	9	5	6	10	11	5	0	51	
Other Assaults	0	3	2	1	2	4	4	9	5	30	
Forgery and Counterfeiting	0	3	6	2	5	6	4	2	1	29	
Embezzlement and Fraud	0	0	1	0	0	0	0	0	1	2	

TABLE 12A (CONT'D)

Type of Criminal Charge	1 to 3 Days	4 to 14 Days	15 to 45 Days	46 to 90 Days	91 to 180 Days	181 to 365 Days	366 to 730 Days	731 to 1826 Days	1827 and over Days	Total	%
Stolen Property - Buying Receiving Possessing	0	0	0	0	0	0	0	0	0	0	0
Weapons - Carrying, Possessing	0	1	1	2	0	1	5	0	0	10	
Prostitution and Commercialized Vice	0	0	0	0	1	0	0	0	0	1	
Sex Offenses - Except Rape, Prostitution, and Commercialized Vice	0	1	3	5	5	4	3	2	3	26	
Alcoholism (Charges Connected with)											
Narcotics	14	25	27	24	11	9	5	2	0	117	
Arson	1	2	6	1	3	0	2	1	2	18	
Kidnapping	0	1	1	0	1	1	0	1	0	5	
Attempted Murder	0	1	6	3	4	12	7	6	7	46	
Criminal Trespassing	0	2	0	0	1	0	0	0	0	3	
Criminal Mischief	0	2	5	5	7	5	6	2	0	32	
TOTALS	25	89	136	118	120	142	127	90	59	906	

TABLE 13

DISTRIBUTION OF PATIENTS SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD SEPT. 1, 1964 - AUG. 31, 1965 UNDER CRIMINAL CHARGES AND/OR CRIMINAL COMMITMENT AND CRIMINAL COMMITMENTS BY TYPE OF CRIMINAL CHARGE AND PRIMARY DIAGNOSIS AT ADMISSION

Type of Criminal Charge	No Diagnosis	Acute Brain	Chronic Brain	Psychotic	Psychophy-siologic	Psychoneu-rotic	Personality	Transient	Mental Defi-ciency	TOTAL	%
Murder and Non-Negligent Manslaughter	-	-	2	9	-	-	2	-	1	14	11.9
Manslaughter By Negligence	-	-	-	1	-	-	-	-	-	1	.8
Rape	-	-	-	4	-	-	4	-	1	9	7.6
Robbery	-	-	-	-	-	-	4	-	-	4	3.4
95 Aggravated Assault	1	-	1	2	-	-	2	1	1	8	6.8
Burglary - Breaking and Entering	-	-	1	7	-	-	4	-	1	13	11.1
Larceny - Theft (Except Auto Theft)	-	-	-	3	-	1	3	-	-	7	5.9
Auto Theft	-	-	-	2	-	-	2	-	-	4	3.4
Other Assaults	-	-	1	5	-	1	-	-	-	7	5.9
Forgery and Counterfeiting	-	-	1	5	-	-	3	-	-	9	7.6
Embezzlement and Fraud	-	-	-	1	-	1	1	-	-	3	2.5
Stolen Property - Buying, Receiving, Possessing	-	-	-	2	-	-	-	-	-	2	1.7

TABLE 13A

DISTRIBUTION OF PATIENTS SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD SEPT. 1, 1975 - AUG. 31, 1976 UNDER CRIMINAL CHARGES AND/OR CRIMINAL COMMITMENT AND CRIMINAL COMMITMENTS BY TYPE OF CRIMINAL CHARGE AND PRIMARY DIAGNOSIS AT ADMISSION

Type of Criminal Charge	Schizophrenia	Other Func. Psychosis	Psychotic OBS	Non-Psychotic OBS	Neuroses	Alcoholism	Drug Abuse	Mental Retardation	Personality Disorder	Trans. Sit. Beh. Disturbance	Other	No Mental Disorder	Undiagnosed	TOTALS
Murder and Non-Negligent Manslaughter	85	2	3	12	5	5	1	11	8	2	0	14	0	148
Manslaughter By Negligence	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rape	16	1	1	4	2	1	0	6	6	0	1	6	0	44
Robbery	26	0	2	2	2	1	10	6	13	0	0	10	0	72
Aggravated Assault	34	1	3	1	1	6	1	6	9	0	0	7	0	69
Burglary - Breaking and Entering	54	3	2	3	0	3	24	19	17	4	0	6	1	136
Larceny - Theft (Except Auto Theft)	25	5	1	1	4	5	4	9	6	0	0	7	0	67
Auto Theft	27	0	1	2	0	1	8	6	3	0	0	2	1	51
Other Assaults	16	1	0	1	0	1	1	4	1	0	0	5	0	30
Forgery and Counterfeiting	9	2	0	0	1	1	4	2	6	0	0	4	0	29
Embezzlement and Fraud	1	0	0	0	1	0	0	0	0	0	0	0	0	2



TABLE 13A (CONT'D)

Type of Criminal Charge	Schizophrenia	Other Func. Psychosis	Psychotic OBS	Non-Psychotic OBS	Neuroses	Alcoholism	Drug Abuse	Mental Retardation	Personality Disorder	Trans. Sit. Beh. Disturbance	Other	No Mental Disorder	Undiagnosed	TOTALS
Stolen Property - Buying, Receiving, Possessing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weapons - Carrying, Possessing	5	0	0	2	0	0	0	1	2	0	0	0	0	10
Prostitution and Commercialized Vice	0	0	0	0	0	0	1	0	0	0	0	0	0	1
65 Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	8	1	0	0	1	4	0	9	2	0	0	1	0	26
Alcoholism (Charges Connected with Narcotics)	14	0	0	0	0	63	21	8	7	0	0	2	2	117
Arsen	5	0	0	0	0	2	0	6	1	0	0	4	0	18
Kidnapping	3	0	1	0	0	0	0	0	1	0	0	0	0	5
Attempted Murder	26	0	3	4	0	1	0	2	2	0	0	8	0	46
Criminal Trespassing	1	0	0	0	0	2	0	0	0	0	0	0	0	3
Criminal Mischief	21	1	0	0	1	0	0	1	3	0	0	4	1	32
TOTALS	376	17	17	32	18	96	75	96	87	6	1	80	5	906

TABLE 14

DISTRIBUTION OF ALL CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD
SEPT. 1, 1964 - AUG. 31, 1965 WITH CHARGE OR COMMITMENT
BY COUNTY OF ORIGIN

COUNTY	TOTAL # OF PATIENTS	COUNTY	TOTAL # OF PATIENTS
Anderson	1	Hopkins	1
Aransas	1	Jackson	1
Bastrop	2	Jefferson	3
Bexar	13	Llano	1
Cameron	2	Mason	1
Cass	3	McLennan	2
Cherokee	1	Nolan	1
Dallas	15	Nueces	1
Deaf Smith	1	Panola	1
Ector	1	Potter	1
Ellis	2	Stonewall	2
El Paso	1	Tarrant	9
Falls	2	Travis	20
Gray	1	Walker	1
Grayson	1	Wichita	1
Hale	1	Williamson	1
Harris	15	Wilson	1
Harrison	2	Wise	1
Hays	1	Wood	2
Hidalgo	1	TOTAL	118

TABLE 14A

DISTRIBUTION OF ALL CRIMINAL PATIENTS
SEPARATED FROM STATE MENTAL HOSPITALS DURING PERIOD
SEPT. 1, 1975 - AUG. 31, 1976 WITH CHARGE OR COMMITMENT
BY COUNTY OF ORIGIN

COUNTY	NO. OF PATIENTS	COUNTY	NO. OF PATIENTS
Anderson	1	Coryell	2
Angelina	2	Cottle	1
Atascosa	1	Crosby	1
Austin	4	Dallam	1
Bailey	1	Dallas	96
Bandera	2	Dawson	1
Bell	20	Deaf Smith	1
Bexar	54	Denton	3
Bosque	1	Donley	2
Bowie	4	Duval	1
Brazos	1	Eastland	2
Brown	1	Ector	2
Burleson	1	Ellis	2
Caldwell	1	El Paso	17
Calhoun	2	Erath	1
Callahan	2	Falls	5
Cameron	11	Fannin	1
Camp	2	Fayette	2
Cherokee	5	Gaines	2
Collingsworth	1	Galveston	6
Comal	4	Gillespie	2
Comanche	1	Goliad	1
Cooke	4	Gonzales	4

TABLE 14A (CONT'D)

COUNTY	NO. OF PATIENTS	COUNTY	NO. OF PATIENTS
Grayson	5	Knox	2
Gregg	5	Lamar	7
Guadalupe	1	Lampasas	2
Hale	1	Liberty	10
Hansford	1	Limestone	1
Harris	157	Live Oak	1
Harrison	3	Llano	1
Haskell	1	Lubbock	11
Hays	2	McLennan	12
Henderson	6	Marion	1
Hidalgo	11	Matagorda	3
Hill	1	Maverick	1
Hood	1	Medina	1
Hopkins	4	Menard	1
Houston	2	Midland	2
Howard	1	Milan	1
Hunt	2	Mitchell	2
Hutchinson	1	Montgomery	3
Jack	2	Nacogdoches	5
Jasper	2	Navarro	7
Jefferson	19	Newton	1
Johnson	4	Nueces	6
Jones	1	Ochiltree	2
Karnes	1	Orange	4
Kaufman	4	Palo Pinto	2
Kerr	6	Panola	1
Kimble	1	Parker	4

TABLE 14A (CONT'D)

COUNTY	NO. OF PATIENTS	COUNTY	NO. OF PATIENTS
Red River	3	Upshur	1
Reeves	2	Uvalde	3
Robertson	1	Val Verde	1
Rusk	3	Van Zandt	4
San Augustine	1	Victoria	1
San Jacinto	3	Walker	3
San Patricio	1	Waller	3
Schleicher	1	Ward	1
Shelby	4	Webb	5
Smith	8	Wharton	3
Starr	1	Wichita	16
Swisher	1	Wilbarger	5
Tarrant	56	Willacy	4
Taylor	3	Williamson	2
Throckmorton	1	Wise	1
Titus	3	Young	9
Tom Green	6	Zavala	1
Travis	62	County Unknown	17
		Out of State	45
		TOTAL	906

TABLE 15

DISTRIBUTION OF PATIENTS SEPARATED* FROM STATE MENTAL HOSPITALS
 DURING PERIOD SEPT. 1, 1964 - AUG. 31, 1965 WITH CRIMINAL AND/OR CRIMINAL
 COMMITMENTS BY TYPE OF CHARGE AND COUNTY OF ORIGIN

Type of Criminal Charge	COUNTY																				TOTAL	%																			
	Anderson	Aransas	Bastrop	Bexar	Cameron	Cass	Cherokee	Dallas	Deaf Smith	Ector	El Paso	Ellis	Falls	Gray	Grayson	Hale	Harris	Harrison	Hays	Hidalgo			Hopkins	Jackson	Jefferson	Llano	Mason	McLennan	Nolan	Nueces	Panola	Potter	Stonewall	Tarrant	Travis	Walker	Wichita	Williamson	Wilson	Wise	Wood
Murder and Non-Negligent Manslaughter	-	-	3	-	1	-	-	-	-	1	-	2	-	-	3	1	-	-	-	1	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	14	11.9
Manslaughter by Negligence	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	.8
Rape	1	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	2	-	-	-	-	-	-	-	9	7.6	
Robbery	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	4	3.4	
Aggravated Assault	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	8	6.8	
Burlary - Breaking and Entering	-	-	2	-	-	2	-	-	-	-	-	-	-	1	3	1	-	-	-	-	-	-	-	-	-	-	1	-	1	2	-	-	-	-	-	-	-	-	13	11.1	
Larceny - Theft (Except Auto Theft)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	1	-	-	2	1	-	-	1	-	-	-	-	-	7	5.9	
Auto Theft	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	4	3.4	
Other Assaults	-	-	2	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	7	5.9	
Forgery and Counterfeiting	1	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	1	-	-	-	-	-	1	1	1	-	-	-	-	-	-	9	7.6		
Embezzlement and Fraud	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	3	2.5	
Stolen Property - Buying, Receiving, Possessing	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	1.7	

64

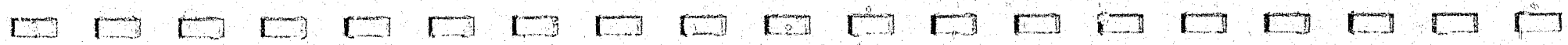


TABLE 15A

DISTRIBUTION OF PATIENTS SEPARATED* FROM STATE MENTAL HOSPITALS
DURING PERIOD SEPT. 1, 1975 - AUG. 31, 1976 WITH CRIMINAL CHARGES AND/OR CRIMINAL
COMMITMENTS BY TYPE OF CHARGE AND COUNTY OF ORIGIN

County	Murder and Non-Negligent Manslaughter	Manslaughter By Negligence	Rape	Robbery	Aggravated Assault	Burglary - Breaking and Entering	Larceny - Theft (Except Auto Theft)	Auto Theft	Other Assaults	Forgery and Counterfeiting	Embezzlement and Fraud	Stolen Property - Buying, Receiving, Possessing	Weapons - Carrying, Possessing	Prostitution and Commercialized Vice	Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	Alcoholism (Charges Connected with) Narcotics	Arson	Kidnapping	Attempted Murder	Criminal Trespassing	Criminal Mischief	TOTALS
Anderson	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Angelina	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Atascosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Austin	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Bailey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Bandera	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Bell	0	0	2	4	3	4	0	1	0	0	0	0	0	1	1	2	0	1	2	0	0	20
Bexar	8	0	2	5	2	14	5	0	3	0	0	0	1	0	0	9	0	1	3	0	1	54
Bosque	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bowie	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	4
Brazos	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Brcwn	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Burleson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Caldwell	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Calhoun	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Callahan	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
Cameron	2	0	0	3	1	2	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	11
Camp	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

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TABLE 15A (CONT'D)

County	Murder and Non-Negligent Manslaughter	Manslaughter By Negligence	Rape	Robbery	Aggravated Assault	Burglary - Breaking and Entering	Larceny - Theft (Except Auto Theft)	Auto Theft	Other Assaults	Forgery and Counterfeiting	Embezzlement and Fraud	Stolen Property - Buying, Receiving, Possessing	Weapons - Carrying, Possessing	Prostitution and Commercialized Vice	Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	Alcoholism (Charges Connected with) Narcotics	Arson	Kidnapping	Attempted Murder	Criminal Trespassing	Criminal Mischief	TOTALS
Cherokee	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Collingsworth	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Comal	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	4
Comanche	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Cooke	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Coryell	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Cottle	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Crosby	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Dallam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Dallas	13	0	5	5	10	17	8	4	4	2	0	0	1	1	4	9	1	0	4	0	8	96
Dawson	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Deaf Smith	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Denton	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
Donley	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Duval	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Eastland	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
Ector	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
Ellis	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
El Paso	4	0	0	0	1	4	0	0	0	2	0	0	1	0	1	1	1	0	1	0	1	17
Erath	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

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TABLE 15A (CONT'D)

County	Murder and Non-Negligent Manslaughter	Manslaughter By Negligence	Rape	Robbery	Aggravated Assault	Burglary - Breaking and Entering	Larceny - Theft (Except Auto Theft)	Auto Theft	Other Assaults	Forgery and Counterfeiting	Embezzlement and Fraud	Stolen Property - Buying, Receiving, Possessing	Weapons - Carrying, Possessing	Prostitution and Commercialized Vice	Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	Alcoholism (Charges Connected with Narcotics)	Arson	Kidnapping	Attempted Murder	Criminal Trespassing	Criminal Mischief	TOTALS
Falls	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5
Fannin	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Fayette	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Gaines	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Galveston	1	0	0	1	0	1	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	6
Gillespie	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Goliad	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Gonzales	1	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Grayson	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	5
Gregg	0	0	1	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Guadalupe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Hale	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hansford	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Harris	17	0	3	19	15	30	15	9	7	4	0	0	4	0	2	9	4	1	7	1	10	157
Harrison	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
Haskell	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hays	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
Henderson	4	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6
Hidalgo	2	0	0	1	2	3	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	11
Hill	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

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TABLE 15A (CONT'D)

County	Murder and Non-Negligent Manslaughter	Manslaughter By Negligence	Rape	Robbery	Aggravated Assault	Burglary - Breaking and Entering	Larceny - Theft (Except Auto Theft)	Auto Theft	Other Assaults	Forgery and Counterfeiting	Embezzlement and Fraud	Stolen Property - Buying, Receiving, Possessing	Weapons - Carrying, Possessing	Prostitution and Commercialized Vice	Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	Alcoholism (Charges Connected with)	Narcotics	Arson	Kidnapping	Attempted Murder	Criminal Trespassing	Criminal Mischief	TOTALS
Hood	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hopkins	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4
Houston	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
Howard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hunt	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hutchinson	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Jack	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
Jasper	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Jefferson	1	0	2	3	0	5	2	1	0	1	0	0	0	0	0	1	0	0	0	1	0	2	19
Johnson	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	4
Jones	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Karnes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4
Kaufman	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6
Kerr	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	1
Kimble	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Knox	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7
Lamar	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lampasas	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Liberty	2	0	0	4	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Limestone	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

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TABLE 15A (CONT'D)

County	Murder and Non-Negligent Manslaughter	Manslaughter By Negligence	Rape	Robbery	Aggravated Assault	Burglary - Breaking and Entering	Larceny - Theft (Except Auto Theft)	Auto Theft	Other Assaults	Forgery and Counterfeiting	Embezzlement and Fraud	Stolen Property - Buying, Receiving, Possessing	Weapons - Carrying, Possessing	Prostitution and Commercialized Vice	Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	Alcoholism (Charges Connected with) Narcotics	Arson	Kidnapping	Attempted Murder	Criminal Trespassing	Criminal Mischief	TOTALS
Live Oak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Llano	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lubbock	2	0	2	1	0	2	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	11
McLennan	2	0	1	0	0	2	0	0	9	1	0	0	0	0	0	0	0	0	3	0	1	12
Marion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Matagorda	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Maverick	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Medina	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Menard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Midland	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Milam	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Mitchell	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Montgomery	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
Nacogdoches	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Navarro	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	2	0	0	2	0	0	7
Newton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Nueces	1	0	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Ochiltree	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
Orange	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	0	0	0	0	4
Palo Pinto	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2

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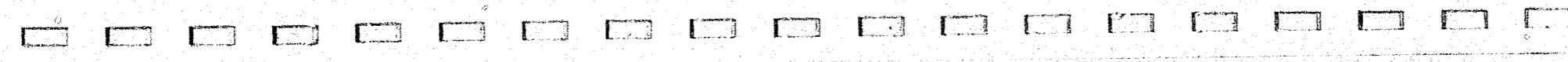


TABLE 15A (CONT'D)

County	Murder and Non-Negligent Manslaughter	Manslaughter By Negligence	Rape	Robbery	Aggravated Assault	Burglary - Breaking and Entering	Larceny - Theft (Except Auto Theft)	Auto Theft	Other Assaults	Forgery and Counterfeiting	Embezzlement and Fraud	Stolen Property - Buying, Receiving, Possessing	Weapons - Carrying, Possessing	Prostitution and Commercialized Vice	Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	Alcoholism (Charges Connected with) Narcotics	Arson	Kidnapping	Attempted Murder	Criminal Trespassing	Criminal Mischief	TOTALS
Panola	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Parker	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Red River	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	3
Reeves	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Robertson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
71 Rusk	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
San Augustine	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
San Jacinto	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
San Patricio	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Schleicher	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Shelby	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4
Smith	1	0	0	1	0	2	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	8
Starr	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Swisher	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Tarrant	9	0	1	6	2	9	9	4	1	4	0	0	0	0	3	2	0	0	3	0	3	56
Taylor	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
Throckmorton	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Titus	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Tom Green	0	0	1	1	0	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	6
Travis	4	0	4	3	2	7	2	5	1	3	0	0	0	0	2	24	1	0	2	2	0	62

TABLE 15A (CONT'D)

County	Murder and Non-Negligent Manslaughter	Manslaughter By Negligence	Rape	Robbery	Aggravated Assault	Burglary - Breaking and Entering	Larceny - Theft (Except Auto Theft)	Auto Theft	Other Assaults	Forgery and Counterfeiting	Embezzlement and Fraud	Stolen Property - Buying, Receiving, Possessing	Weapons - Carrying, Possessing	Prostitution and Commercialized Vice	Sex Offenses - (Except Rape, Prostitution, and Commercialized Vice)	Alcoholism (Charges Connected with Narcotics)	Arson	Kidnapping	Attempted Murder	Criminal Trespassing	Criminal Mischief	TOTALS
Upshur	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Uvalde	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3
Val Verde	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Van Zandt	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	4
Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Walker	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
Waller	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
Ward	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Webb	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5
Wharton	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
Wichita	4	0	0	0	0	1	1	1	0	0	0	0	1	0	1	5	0	0	1	0	1	16
Wilbarger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
Willacy	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	4
Williamson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
Wise	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Young	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	5	0	0	1	0	0	9
Zavala	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
County Unknown	4	0	0	2	3	0	1	0	1	0	0	0	1	0	3	0	0	0	0	0	2	17
Out-of-State	1	0	5	6	3	8	4	6	1	4	0	0	0	0	1	3	1	2	0	0	0	45
TOTALS	148	0	44	72	69	136	67	51	30	29	2	0	10	1	26	117	18	5	46	3	32	906

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APPENDIX 4

THE INCIDENCE OF MENTALLY
ABNORMAL OFFENDERS

by

Ellis M. Craig, Ph.D.

The Incidence of Mentally Abnormal OffendersIntroduction

The Texas State Plan for Comprehensive Mental Health Services (TDMHMR, 1977) was developed in accordance with the requirements of Public Law 94-63. One of these requirements was that the Plan specify the procedures for and results of a survey of the relative mental health needs of the various catchment areas within the state. The TDMHMR's first step toward meeting this requirement was the establishment of the Task Force on Prevalence and Service Requirements for Mental Health/Mental Retardation.

Nine mental health professionals, representing both TDMHMR facilities and Community MHMR Centers, were appointed to the Task Force. The charge given to the group was to conduct a survey of the state's population as to the number and demography of individuals in need of mental health/mental retardation services, with a special emphasis on the number "in need" of each of eight types of services. The assumption was made that these needed services would not necessarily be delivered only in TDMHMR facilities or CMHMRC's (e.g., other agencies and private practitioners).

The prevalence/incidence estimates for various target groups commonly considered to be in need of MHMR services were based largely on information reported in the published literature. Since there is often considerable variance in the reported rates of a given disorder, the Task Force members reached a consensus among themselves as to a prevalence/incidence rate which seemed "reasonable".

Feedback on the accuracy of these estimates was solicited from the staff of all the state hospitals, state schools, human development centers, CMHMRC's, and relevant state agencies and advocacy groups (Craig and Scott, 1976). This chapter is concerned with incidence estimates for two of the nine target groups, mentally ill and mentally retarded criminal offenders. It is of interest, therefore, that

the largest percentage of "don't know" responses from MHR professionals and other interested individuals were for the estimated incidence of these two groups, (other response alternatives included "too high", "reasonably close", and "too low"). The mentally ill and mentally retarded criminal offender groups together comprise the mentally abnormal criminal offender (MACO) group.

One purpose of this chapter is to present and explain in greater detail than was done in the original Task Force Report (TDMHR, 1976) the assumptions and resulting estimates of the incidence of MACO's. In this context, the term incidence is defined as the number of "mentally abnormal" individuals who commit one or more significant crimes in a given year. By mentally abnormal is meant the existence of the type(s) of behavior that would likely result in a psychiatric diagnosis (APA) or one of mental retardation by a qualified diagnostic team.

Criminal Behavior and Mental Abnormality

The relationship between criminality and mental abnormality has long been a subject of debate. A continuing question has been whether or not mentally abnormal persons are more likely to commit crimes than is the rest of the population. This has continued to be a controversial area partly because of the mixed results of the relevant research.

For example, in their review of the literature on arrest rates of former state hospital patients, Mesnikoff and Lauterbach (1975) observed that studies conducted prior to 1960 generally revealed no greater, or even lesser, arrest rates for violent crimes than found with the general population. In contrast, more recent studies indicate that formerly hospitalized persons are as likely to be arrested for violent crimes as the general population and have even higher rates for certain crimes, e.g., robbery.

Mesnikoff and Lauterbach suggest that methodological differences between the various studies (e.g., varying hospital discharge rates) may account for some of the discrepant results. Another confounding factor is that because of dif-

ferential reporting practices over the years, many authorities believe that crime statistics are not directly comparable from one time period to another (NIMH, 1972).

Crime Statistics

The standard source of crime statistics is the Uniform Crime Reports (UCR) which has been published annually since 1930 by the U.S. Department of Justice (FBI). A particularly relevant criticism which has been made of the UCR is that the reported offense categories are not mutually exclusive (Robinson, 1966), i.e., it is possible that the number of crimes reported were committed by a smaller number of individuals. Further, crime rates typically represent only the number of reported crimes. However, the majority of reported crimes are not "cleared", i.e., an arrest made.

Assumptions Regarding Incidence

In view of this problematic data base and the inconsistent research results on MACO's, attempting an incidence estimate is a hazardous venture. Nevertheless, the approach taken by the TDMHR Task Force (1976) involved the following assumptions:

1. The mentally abnormal group includes approximately 15% of the general population.
2. Individuals who would likely receive a psychiatric diagnosis if evaluated have a crime rate commensurate with that of the general population.
3. Persons with IQ's in the retarded range (below 70) are disproportionately represented in crime statistics (Note: no reference is made here to adaptive behavior - only IQ).
4. A conservative estimate of the incidence of the MACO group can be based on the number of reported "index crimes".

UCR Index Crimes

This subset of crimes, which includes murder, forcible rape, aggravated assault, robbery (violent crimes), burglary, larceny-theft, and motor-vehicle theft (property crimes), are considered to be the most common serious crimes and thus are regularly used to measure the trend and distribution of crime. According to the 1975 UCR, index crimes represented approximately 25% of the total reported offenses. The non-index offenses include a number of other felonies and all misdemeanors.

Mentally Ill Criminal Offenders

Because of the purposes of the TDMHMR Task Force, separate incidence estimates were made for the mentally ill and the mentally retarded criminal offender groups, although it is probable that there is some overlap between the two groups. The Task Force members had independently estimated the size of the psychiatric group (excluding substance abuse diagnoses) as approximately 10% of total population.

Thus, on the assumption that this group has a similar crime rate to that of the general population, the incidence of the group was estimated as 10% of the reported index crimes. The index crime data available at that time for Texas (1974 data) indicated that 565,765 such crimes had been reported during the year. Therefore, the incidence of mentally ill criminal offenders in 1974 was estimated to be 56,577. This figure represents 5.2% of the estimated prevalence of the mental health target group (TDMHMR, 1976).

Mentally Retarded Criminal Offenders

To explain the rationale for the mentally retarded criminal offender estimates, a brief literature review is necessary. In the early part of this century a number of mental retardation professionals wrote extensively of the "menace of the feeble-minded" (Sarason and Doris, 1969). The high propensity of retardates

toward criminal behavior was a commonly mentioned menace. Even the recent estimates suggest that about 10% of the persons coming into contact with the criminal justice system have IQ's in the retarded range (Haskins, Friel, and Kirkpatrick, 1973). A similar proportion is found for persons incarcerated in both adult (Brown and Courtless, 1965) and juvenile (Romig, 1974) correctional facilities.

These findings are especially interesting in view of the relatively well-accepted prevalence rate of 3% for retardates suggested by the President's Panel on Mental Retardation (1962). Nevertheless, because the findings with retardates appeared to be even more objective and reliable than those with the psychiatric group, the Task Force members estimated the incidence of mentally retarded criminal offenders as being equal to that of the mentally ill criminal offenders, i.e., 56,577. This figure represents 18.4% of the estimated prevalence of the mental retardation target group (TDMHMR, 1976).

Disposition of MACO's

The combined estimates for the psychiatric and retarded groups result in an incidence figure of 113,154 for MACO's in Texas in 1974. This figure represents 8.2% of combined prevalence estimates for the mental health and mental retardation target groups (TDMHMR, 1976).

This incidence estimate generates a very interesting question. Assuming that the figure is anywhere near accurate, where are all these people? One answer is that the majority of such individuals were probably not apprehended during the year. According to the 1975 UCR, only 21% of the index crimes were cleared, i.e., the alleged offender taken into custody. Assuming that about 20% of the 120,000 + arrests made were of MACO's (i.e., 24,000), this leaves an additional group of 89,000 who were not apprehended for their crimes.

Of special interest is the disposition of the estimated 24,000 MACO's who were arrested. Some of these individuals are diverted to a TDMHMR facility soon after arrest. A prime source of referral is RusK State Hospital which contains the state's

major maximum security unit for mentally abnormal offenders. During the past year there were about 500 admissions to this unit. However, admission to the unit is restricted primarily to adults. According to the 1975 UCR, juveniles represented 43% of the index crime arrests. There is no centralized TDMHMR facility or even unit for the estimated 10,000 + juvenile MACO's (although Rusk State Hospital does have a small unit for delinquent retardates separate from the maximum security unit).

This is not to say, however, that the MACO group (both juveniles and adults) are not served in TDMHMR facilities. In a recent analysis, 1122 inpatients were identified in TDMHMR state hospitals who have a felony conviction, are under indictment, or have a history of "trouble" with the police. This group comprises about 16% of the entire inpatient population. The results of several nationwide surveys (e.g., Scheidemandel and Kanno, 1969) indicate that such individuals represent about 5% of mental hospital admissions. Since members of this group tend to remain institutionalized for longer periods than other types of admissions, such a build-up would be expected.

However, comparatively few retardates with a reported history of criminal offenses are admitted to TDMHMR state schools for the mentally retarded. A survey of state schools revealed only 125 such cases (about 1% of the state school population) during the same time period as the state hospital survey indicating 1122 cases.

As Valieant (1971) pointed out, however, persons apprehended for an alleged crime are sometimes encouraged to "voluntarily" commit themselves to a hospital and thereby avoid prosecution. It is likely that some such cases are not identified by the hospital as having a criminal history. Thus, the figures reported above probably represent an underestimate of the actual size of the MACO group within the state hospital and state school populations.

A group not coming into contact with the TDMHMR system are those MACO's who

are placed in private psychiatric facilities. Since there is not a centralized data base for such individuals, the number of such instances is difficult to estimate. Further, a highly plausible assumption is that some MACO's being processed through the criminal justice system are not referred to either public or private mental health facilities for evaluation.

Only about 1/3 of the persons charged with an index crime are found guilty as charged or even guilty of a lesser offense in later dispositions. In the case of convicted felons who are incarcerated in adult or juvenile correctional facilities, the pleas of "not guilty by reason of insanity" or "incompetency to stand trial" might never have been raised. Smith (1971) identified a number of reasons why this might occur, including:

1. The defendant lacking the necessary resources (e.g., having a court-appointed lawyer who has no particular investment in the disposition of the case);
2. The defendant resisting either of these pleas because he considers mental illness to be more stigmatizing than criminality; and
3. The defendant opting for a relatively fixed prison sentence rather than hospitalization for an indeterminate (and possibly longer) period.

MACO's in the Correctional System

Several studies have focused on the psychiatric epidemiology of prisoners in correctional facilities. In his review of this literature, Smith (1971) reported that most of the studies found about a 20% rate of "significant psychiatric illness" in prison inmates. He further noted that "while only about 2% of all offenders are found to be overtly psychotic, these are the offenders who tend to achieve the greatest notoriety because of the regressive, primitive, and often needlessly aggressive characteristics of their offenses". Nevertheless, the primary conclusion Smith drew from these data was that the rate of mental disorder in prison populations is about the same for the general population.

Another study in this area was that of Roth and Ervin (1971) who investigated the lifetime incidence of psychiatric contacts and illnesses of 1154 prisoners in a federal penitentiary. Although about half of the prisoners had some type of psychiatric evaluation in connection with their criminal charges, the authors pointed out that "it is of special note that 18% of the men had in the past had at least one noncriminal psychiatric contact and 10% of the men had had at least one previous psychiatric hospitalization that was unrelated to criminal activity".

In contrast to earlier findings (e.g., Brown and Courtless, 1965), Roth and Ervin found the number of mentally retarded to be close to the generally accepted 3% rate. Prisoners with a history of epilepsy, on the other hand were over-represented five times the normal prevalence. The number of psychotic prisoners in their sample was also overrepresentative in comparison to the general rate. For example, 6% of their sample had received at some point a diagnosis of schizophrenia as compared to a general population lifetime incidence of less than 1% (Slater, 1968). A rather interesting bit of information was that 4% of Roth and Ervin's sample apparently suffered their first psychosis following incarceration.

Although fairly small percentages are involved, the discrepancy between Roth and Ervin's findings (a 6% rate for a history of presence of schizophrenia and a 4% rate for first psychosis) and those of Smith (1971) (i.e., a 2% rate for all psychoses) is difficult to explain. Since more detailed supporting data are provided by Roth and Ervin, there is an understandable tendency to place more credence in their conclusions. Nevertheless, both reports may be accurate and simply represent differing policies regarding the disposition of MACO's.

Crime Rate and Hospital Commitments

There is a relatively unexplored area of research in which the results obtained thus far indicate that the general crime rate is inversely related to the number of persons residing in MHMR facilities. A very early observation of this phenomenon was made by Penrose (1939). His interpretation of the data was that

the provision of facilities for the mentally abnormal group lessens the incidence of crime. Biles and Mulligan (1973), although replicating Penrose's results, offered a modified interpretation. Their's was that the negative correlation between prison incarcerations and mental hospital admissions is a reflection of a relative use of "two major and essentially alternative ways of disposing of the aberrant".

A very recent verification of this inverse relationship comes from an unpublished study conducted by the California Department of Health (as reported by Sosowsky, 1978). The State of California recently attempted a major deinstitutionalization effort in which several state hospitals were closed and thousands of state hospital patients were returned to the community (probably without adequate aftercare services). In this study it was found that ex-hospital patients were arrested three times as often during the period following the deinstitutionalization movement as before. A key phrase Sosowsky used to describe this result was "more liberty - more criminal activity".

Summary and Conclusions

A number of assumptions and the resulting estimates of the incidence of mentally abnormal criminal offenders (MACO's) have been presented. One of the major assumptions is that the "mentally ill" have approximately the same criminal rate as the general population and thus a 10% representation in this rate, especially if only actual arrests are considered. A second major assumption is that the mentally retarded (as defined by an IQ less than 70) have a disproportionate representation in the crime rate, i.e., committing 10% of the crimes while only representing 3% of the general population. Finally, because of the problematic data base in this area, the assumption is made that a conservative estimate of the incidence of the MACO group can be made by examining only the number of "index crimes".

The resulting estimate of the incidence of MACO's in Texas based on Uniform Crime Reports (UCR) data for 1974 is approximately 113,000. Later discussion focused on the "demography" of this group. Some findings could be interpreted as indicating that almost 80% of this group are not apprehended (an estimated 24,000 in 1974) have a variety of dispositions, including acquittal or dismissal of the charges, commitment to a psychiatric facility, or incarceration in a correctional facility. Finally, the impact of the provision of MHMR services, especially residential services, for MACO's was explored, with available evidence indicating that the incidence of this group is related to the degree of supervision they receive.

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APPENDIX 5

NORMATIVE CHARACTERISTICS OF FORENSIC
PSYCHIATRIC PATIENTS IN TEXAS*

by

James M. Mullen, Ph.D.
Mark Mason, M.A.

*Report on Beta Test, Harold K. Dudley, Jr., M.A.
Report on WAIS Test and Imaginal Processes
Inventory, Ellis M. Craig, Ph.D.

Normative Characteristics of Forensic Patients in Texas

One goal of this project was to provide baseline information on Texas forensic patients. Instruments were developed to provide detailed social histories of the patients' childhood, adolescence, and adult life. Of special interest was the six-month period prior to hospital commitment. Data were gathered concerning the circumstances of the patients' alleged criminal offenses - type of offense, weapon used, location of the crime, and the use of alcohol or drugs in conjunction with the crime. Data were also gathered about victims' age, sex, race, and extent of personal injury. All medical information that is obtained by hospital clinicians as part of the routine admission process was recorded. Results of psychiatric interviews and the resulting psychiatric diagnoses were analyzed. Extensive psychological testing was initiated and included the following: Revised Beta IQ test, Wechsler Adult Intelligence Scale (WAIS), Minnesota Multiphasic Personality Inventory (MMPI), Holtzman Inkblot Technique (HIT), the Buss-Durkee Hostility Inventory (BDI). Similar, although not identical, information was collected for a sample of non-forensic psychiatric patients and a sample of non-psychiatric inmates of a penal institution.

Many of the instruments selected for the research project are routinely included in the patient's diagnostic assessment at the time of hospital admission by hospital clinicians. Others were added only for this study.

Demographic variables describing general characteristics of a sample population need to be viewed in a proper perspective. Such variables may be misleading in that they are often reported without consideration of their relationships to other variables measured in the population sampled. The principal value of the demographic information in the present study is that it provides the opportunity to compare this study with others on such measures as age, ethnicity, marital status, education, prior psychiatric hospitalizations, and psychiatric diagnoses.

Demographic variables may be helpful in assisting administrators who make therapeutic program decisions about groups of patients. For example, results of the present study, supported by previous studies of violence prone populations, indicate that a therapeutic program in the Texas mental health system focusing on violent patients between the ages of 45 - 60 would be ineffective use of mental health resources. For the present study, however, demographic variables simply provide a frame of reference for comparing the present sample with recent studies of violence prone individuals: The main purpose of this study is to apply the information on an individual basis to develop a prediction equation regarding patient dangerousness.

Review of the Literature: Demographic Variables

Age: Klebba (1975) reviewed homicide trends in the United States from 1900 - 1974. He found that men between ages 20 - 24 and 25 - 29 have the highest victim rates for homicide and the highest rates for committing homicide, as two-thirds of all homicides committed by males were under the age of 40. Henn, Herjanic, and Vanderpearl (1977) reviewed the 22 years history of the Forensic Service at Malcolm Bliss Mental Health Center. Of 1195 cases, they found the majority of defendants between the ages of 20 - 24. This age range accounts for nearly 30% of all patients between 1969-1973, while from 1952-1968, this range accounted for less than 20% of the total. Other references have suggested that the mean age of individuals identified as violent is approximately 30, with the range extending from 15 - 40 years. For example, Coccozza and Steadman (1977) found the mean age of 30 years for 257 male felony defendants found incompetent to stand trial in New York State. Bach-Y-Rita, Leon, Clement, and Ervin (1971) found similar results after reviewing 130 violent patients from Massachusetts General Hospital. Henn, Herjanic, and Vanderpearl (1976) found that 75% of a group of 239 sexual offenders were under the age of 30.

The American Psychiatric Association Task Force Report on Clinical Aspects of the Violent Individual (1974) also reported that the majority of violent offenders are men and the rates of violence are higher for individuals in the 18-24 age group than for other ages. Finally, Guze (1964) found that 87% of 217 male convicted felons were under the age of 40.

Ethnicity: Henn, Herjanic, and Vanderpearl (1977) noted in their study of 1195 cases in St. Louis, Missouri, an increasing proportion of black male patients referred for treatment to a forensic unit. However, the authors suggest that this increase may reflect the changing ethnic characteristics of the St. Louis population. Although ethnicity is widely reported as correlated to violence, this variable is only a measure of the sample identified, and not necessarily representative of the population from which subjects are chosen. The evidence relating ethnicity to violence is inconclusive.

Marital Status: Unstable social relationships is a trend noted in violence prone populations. Bach-Y-Rita, Leon, Clement and Ervin (1971) indicated that almost half of 130 violent patients were single and approximately one-fifth were either separated or divorced. Similar findings are reported by Piotrowski, Losacco, and Guze (1976) on 500 pre-trial examinations, and by Coccozza and Steadman (1977) on 257 felony defendants from New York state. A study of 500 North Carolina mental patients (Mullen and Rollins, 1976) also found that unmarried patients were more prone to violence than married patients. All of these studies suggest that almost two-thirds of the populations studied have been unable to establish or maintain marital relationships.

Education: In general, the institutional groups studied as violence prone populations, are poorly educated. This phenomenon is a reflection of those individuals committed to institutions and does not necessarily suggest a relationship between poor educational background and violent behavior. Estimates of the

educational background of forensic patient samples range from eighth grade through tenth grade, as demonstrated in recent studies. Coccozza and Steadman (1977) found that the ninth grade was the average grade completed in a sample of 257 New York patients; Mullen and Rollins (1977) found that the eighth grade was the average grade completed in a sample of 500 North Carolina patients, while Bach-Y-Rita, Lion, Clement, and Ervin (1971) reported the tenth grade as the average completed in a sample of 130 Massachusetts patients.

Psychiatric Diagnoses: The American Psychiatric Association Task Force Report on Violence and the Individual (1974) concluded upon reviewing the evidence that no positive association has been found between psychiatric diagnoses and violent crimes.

There is general agreement, however, on the psychiatric diagnoses prevalent among violence prone populations. The most frequently used psychiatric diagnoses include psychopathy, alcoholism, and drug addiction. Such were reported by Guze, Goodwin, and Crane (1969) in a sample of 223 convicted male felons. Similar results were found in a replication of this study by Guze, Woodruff, and Clayton (1974) in a sample of 500 forensic patients. In a critical review of the research on the criminal behavior of discharged mental patients, Rabkin (1979) addresses the issue of the association of crime with psychiatric diagnostic categories. She agrees with the consensus that patients diagnosed as psychopathic, alcoholic, or drug addicted commit the most crimes, but notes there is less consensus about whether these three diagnostic labels describe mental illness; for in some epidemiological studies of true prevalence rates, investigators systematically excluded these categories and focus exclusively on neuroses and functional and organic psychoses. Rabkin further notes the evidence is less consistent regarding the relationship of crime and a diagnosis of schizophrenia. There is some evidence that for such violent crimes as murder and assault schizophrenics have higher arrest rates than other diagnostic groups. However, the evidence is not

convincing; the critical factors of age and social class are uncontrolled and require evaluation before firmer conclusions can be derived.

Previous Psychiatric Hospitalizations: A number of studies (Coccozza and Steadman, 1977; Mullen and Rollins, 1977; Piotrowski, Losacco, and Guze, 1976; Levinson and York, 1974; Lanzkron, 1963) have shown an association between criminal behavior and previous hospitalizations. The problem of such studies of mental patient populations, however, has been the failure to identify and compare appropriate sub groups of patient populations. Patients in the sub group with the highest previous arrests account for the high crime rate of mental patient populations (Rabkin, 1979; Steadman, Vanderwyst, and Rigner, 1978). The number of previous psychiatric hospitalizations, then, is a variable which needs to be considered in relationship to appropriate sub groups of mental patients (some examples of such categories include patients with no previous arrests, patients with few previous arrests, and patients with multiple previous arrests).

Personal History and Developmental Variables: A number of variables explore the relationship of personal history and developmental characteristics to violent behavior. Investigation of the variables - enuresis, firesetting, animal cruelty, head injury, employment status, military status, previous criminal behavior, alcoholism, and suicide attempts - are reviewed here.

Enuresis, firesetting, and animal cruelty: Such characteristics have been reported in studies of violence prone patients. The American Psychiatric Association Task Force on Violence and the Individual (1974), however, has noted the prognostic value of the triad is undetermined, although reports of such behaviors are frequently obtained from violent patients. An interesting study is reported by Hellman and Blackman (1966). In a sample of 84 prison inmates, 31 convicted of assaultive crimes were compared with 53 inmates convicted of non-assaultive

crimes. Results showed three-fourths of the assaultive group reported a history of enuresis, firesetting, and animal cruelty, while only one-fourth of the non-assaultive groups reported a history of the triad behaviors. Although the authors suggest some prognostic value of the triad in the prediction of violent behavior, the American Psychiatric Association Task Force Report (1974) suggests that the presence of the triad behaviors in violent offenders generally represents serious family deprivation, primitive modes of impulse expression, and impaired personality development.

Head injury: An important variable associated with violent behavior is organic impairment resulting from head injury. Mark and Ervin (1970) found 75% of the adult prisoners they studied had histories of significant periods of unconsciousness from head injury. Bender (1959) found a high percentage of aggressive, delinquent, and homicidal children to have been suffering from some kind of brain dysfunction. Williams (1969) noted the relationship between those individuals examined for their habitual aggressiveness and past occurrence of head injury. These studies, along with the American Psychiatric Association Task Force (1974), support the conclusion that head injury, commonly resulting from automobile accidents, gunshot wounds, athletic injuries, misuse of drugs, or accidents involving physical insults to the brain may be a determinant of violent behavior.

Employment status: Unemployment is a characteristic of institutional groups studied as violence prone populations. A number of studies (Bach-Y-Rita, Leon, Clement, and Ervin, 1971; Bearcroft, 1966; and Lanzkron, 1963) have identified a trend of high unemployment in such populations. At least two-thirds of those individuals identified as violent have poor employment histories and poor occupational skills. One-third of the groups evaluated were unemployed at the time of hospitalization or incarceration. The American Psychiatric Association Task Force (1974) also supports the notion that violent individuals often have poor occupational skills.

Military status: With the chaos in America over participation in the Vietnam War, the military experience of violent individuals becomes an interesting consideration. Vietnam veterans have been faced with problems of massive unemployment, unfavorable acceptance of our part in the war, drug abuse, inadequate Veterans Administration benefit programs. It has been implied that many veterans in frustration are turning to violence. However, the evidence is incomplete and unclear. Tuason (1971) and Yager (1976) reported that 50% of the veterans they studied engaged in violent behavior after military discharge.

History of criminal behavior: An axiom which says that one's past behavior is the best predictor of future behavior, may also be true of violence. A number of studies (Cocozza and Steadman, 1977; Mullen and Rollins, 1977; Bach-Y-Rita, 1974; Bach-Y-Rita and Vena, 1974; White, Krumholz and Fink, 1969; Guttmacher, 1963) support the notion that an individual's criminal history is an important consideration in the assessment of dangerousness. Particularly for mental patient populations, Steadman (1977) and Rabkin (1979) have highlighted the importance of the criminal history in assessing arrest rates of mental patients and identifying the high risk group of mental patients. In five separate samples of 100 mental patients, Mullen and Rollins (1977) found the criminal history variable a consistent factor in multiple regression equations predicting future criminal behavior; its utilization as a predictive factor for future violent behavior, however, remains undetermined, especially because of the low base rates of violent behavior.

Alcoholism: In reviewing literature relating alcohol to violence, Daniels, Gulula, and Ochberg (1970) pointed out that studies have taken two general approaches to the question. In the first, the drinking histories of those convicted of felonious acts of violence were investigated, and in the second, the criminal records of known alcoholics were examined. The authors cited examples of both. As an example of the former type, they cited a 1961 report of a California survey conducted of 2,325 new prison arrivals. Twenty-nine percent, the

majority of whom had been convicted for crimes of violence, indicated that alcohol had been a major problem in their lives. Utilizing the second method, Clark, Hannigan, and Hart (1965) studied a series of 100 alcoholic felons and found a preponderance of violent crimes. The work of Wolfgang and Strom (1956) also provided evidence that alcohol and violence are related. They studied 588 homicides over a five-year period in Philadelphia, and found that alcohol was present in either the offender or the victim in 64% of the cases. Although they lacked sufficient data to make accurate retrospective diagnosis of alcoholism, the diagnosis was strongly suggested in a number of cases. The report of Haughey and Heiberg (1962) also has drawn attention to the relationship of alcohol and violence. They distinguished between alcohol as a primary factor in crime (unleashing violence in the form of assaultive behavior) and as a secondary factor (causing chronic alcoholics to act in criminal ways). Finally, the American Psychiatric Association Task Force (1974) reports that alcoholism and drug abuse is commonly noted in violent patients' histories.

Suicide: The question of the association of suicide attempts to violence has been considered in several studies. Whitlock and Broadhurst (1969) compared samples of 50 suicidal mental patients, 50 non suicidal mental patients, and 50 normal individuals. Classes of violent experiences were graded numerically on a basis of severity and on the degree of responsibility of the person involved. The suicidal patients had significantly higher violence scores than either control group. Bach-Y-Rita, Leon, Clement, and Ervin (1971) also explored the question and found that almost 50% of the 130 patients referred for explosive violent behavior had attempted suicide. These suicide attempts were usually associated with an episode of loss of control, and the self-destructive act seemed to occur when the patient could not find a victim. The evidence associating suicide with violence is incomplete. The question needs further study.

Family history: Previous studies have alluded to the association of violence to such effects as parental alcoholism, broken homes, psychiatric illness in parents,

the socioeconomic stability of the family, and abuse and neglect by parents. The American Psychiatric Association Task Force (1974) observed that a social history of violent patients frequently reveals that they have come from homes where there was previous violence, parental deprivation, alcoholism, and parental brutality.

In their study of 40 violent patients, Clement and Ervin (1972) found alcoholism in both parents to be significantly higher than in a control group of 40 nonviolent patients. Levy (1954) examined the influence of the home on prison inmates and revealed the importance of early emotional upbringing and early home conditioning. He found that nearly all of these inmates came from so-called broken homes, which frequently occurred before the inmates were ten years old. Senti and Blomgren (1975) found in their study of homicidal behavior: an unfavorable home environment, parental brutality, exposure to violence or murder, seduction by a parent, and sexual inhibition. Statten, Menninger, Rosen, and Mayman (1960) received a sample of murder cases and found evidence of severe emotional deprivation in early life that involved prolonged or recurrent absence of one or both parents, a chaotic family life in which the parents were unknown, or an outright rejection of the child by one or both parents. Tuason (1971) observed that two-thirds of the violent patients he studied had relatives that required psychiatric care with alcoholism being the leading factor in one-half of these cases. In reviewing the family history of 107 convicted felons, Guze (1964) found that in two-thirds of these cases, other family members had arrest records and over one-third had been in prison. Reidy (1977) investigated the aggressive characteristics of young abused children with those of nonabused-neglected and normal children. This study suggested the link between physical punishment in the home with aggressiveness in children. Reidy suggested that the aggressiveness of abused children may be an enduring pattern of behavior perpetuated into adolescence and adulthood. Family background obviously has an important influence on an individual's

behavior. The evidence suggests this is true in institutions (prisons and mental hospitals) where violence prone individuals are usually studied. These results reflect characteristics of individuals committed to institutions, and do not necessarily suggest that a poor family background is a prerequisite for violence.

Results of Demographic Survey: Results of the 288 male patients examined from this population are summarized in Table 1; the average age of these alleged offenders is 30, with the median age 26 years. Almost one-half of the patients are white (48%), with 39% black, and 12% Latin. The majority of these individuals (64%) state a religious preference of Protestant.

On the average, patients have been married less than once ($\bar{X} = .61$). Reported marital status on admission indicates that over one-half (57%) have never been married, almost one-fifth are currently married (17%), and one-fourth are presently separated, widowed or divorced. Only 8% of the patients report living with their spouses before admission, while nearly one-half (48%) have been living with their families, and one-third of this sample report living alone.

Education achieved by these individuals finds almost one-third (29%) have completed grades seven through nine, while almost one-half (45%) have completed grades 10 through 12. Only 8% have attained some college credit, with 2% having graduated from college.

Utilizing the DSM-II classification, almost one-half (46%) received a primary diagnosis of schizophrenia, 14% were found to have no mental disorder, and 10% received a diagnosis of mental retardation. Twelve percent received a secondary diagnosis of drug abuse. Over one-half (64%) have received previous TDMHMR inpatient hospital care, and 5% have had previous TDMHMR state school commitments. Almost one-third (31%) report previous outpatient treatment.

Finally, examining the county of residence of these alleged offenders indicates that over one-half (52%) resided within the six larger metropolitan areas, while 106 less populated counties represent the other 48% for county of residence

for these patients in the state of Texas. Over one-fifth claim residence from the Houston city proper (21%), while 14% list the city of Dallas as their place of residence before their commitment to Rusk State Hospital.

Family Background Characteristics: Information as reported by the patients themselves concerning family histories summarized in Table 2, indicates that one-third of the fathers or male guardians and over one-fifth (22%) of the mothers or female guardians of these patients are deceased. During their childhood years (0-12), these patients have lived with their fathers an average of eight years ($\bar{X} = 8.6$), and an average of 11 years ($\bar{X} = 11.40$) with their mothers. Although these patients indicate the presence of a father in the household an average of three years ($\bar{X} = 3.3$) and a mother an average of four years ($\bar{X} = 4.4$) during their adolescent years (13-17), 29% of the sample report the father was absent during these years.

These individuals have an average of four siblings ($\bar{X} = 4.5$) with only 8% having been the only child. Education achieved by parents finds more mothers (36%) have completed grades 10 through 12 as compared with fathers (23%). Over one-third of the patients were not aware of the amount of education achieved by their parents. While the majority of the patients (57%) denied that any other family member had received inpatient psychiatric treatment, 38% of the patients' fathers as well as 38% of the patients' mothers were reported to have been admitted to psychiatric hospitals. Almost one-third (30%) of the patients' parents were reported to be divorced, and the patient was on the average eight years of age ($\bar{X} = 8.4$) when the divorce occurred. These patients also acknowledged that one-fourth of their fathers and/or mothers had problems with alcohol/drugs during their childhood years and 22% during their adolescent years.

Family soci-economic characteristics as reported by the patients themselves indicate that over one-half of the patients' families were buying their homes

during the patients' childhood years (55%) and during the patients' adolescent years (57%). Over three-fourths (83%) of the principal wage earners in the patients' family are reported to have provided a steady source of income during the patients' childhood years; 79% during their adolescent years. Similar high percentages are noted regarding the infrequency in which the principal wage earners changed occupations. During the patients' childhood years, 74% of the families' principal wage earners changed jobs less than once a year, while 72% changed jobs during the patients' adolescent years. Less than one-fifth of the fathers or male guardians had occupations that kept them away from the home at least three days/nights a week during the patients' childhood years (19%) and adolescent years (15%). Finally, the mobility of the patients' families report an average of three moves ($\bar{X} = 3.1$) within the same community during the patients' first 17 years, while these families relocated to other cities an average of one move ($\bar{X} = 1.6$) during the patients' first 17 years. Almost one-third of the patients' families (27%) resided at the same address for the patients' first 17 years.

Childhood and Adolescent Characteristics: From the characteristics of the patients' childhood and adolescent years summarized in Table 3, it is noted that 10% of these patients were referred for treatment for emotional problems during their childhood years. The number of patients referred for treatment during their adolescent years more than doubled to 22%. Nearly one-half (43%) report they had average grades in elementary school, but only 36% report average grades in both elementary and high school.

Patients in the sample have also presented an assessment of the frequency in which they were administered physical punishment for bad behavior. As children, 11% of the sample was never administered physical punishment for bad behavior, while during adolescence 42% was never administered physical punishment.

Of interest is the number of patients who report frequent (more than once a month) administration of physical punishment. Nearly one-half (40%) of the patients frequently received physical punishment as children, while 14% continued to be physically punished as adolescents.

Also of interest is the number of the patients who report problems with alcohol and drugs during their adolescence. From this sample, 19% admitted problems with alcohol and the same percentage admitted drug abuse. Noteworthy from this sample of patients is that 4% threatened to commit suicide as children and 8% made similar threats during adolescence. Of those patients who attempted to commit suicide, 1% attempted to end their lives as children, and 7% made attempts on their lives as adolescents.

Finally, this sample of alleged offenders was asked who their favorite hero was during their childhood and adolescent years. Over one-half of the sample (57%) report they did not have a hero during their developmental years. As children, Superman was reported most frequently, and rock musicians and their fathers were mentioned with equal frequency as most popular during their adolescent years.

Adult Life Characteristics: Table 4 reports some characteristics about the adult lives of this sample. Almost one-half (45%) listed their occupational capabilities as being unskilled general laborers. Two percent report to have skilled occupations, 13% are semi-skilled laborers, and 33% report they are not in the labor force. At the time of commitment, over three-fourths (78%) of these patients report they have been unemployed for the last three months. However, these patients have averaged four ($\bar{X} = 4.6$) jobs during their adult lives, with only 6% admitting they had never held a job. One occupation reported by 31% of these individuals was as a member of the Armed Services. Of these 92 veterans,

veterans, over one-third (37%) served in an active combat zone.

As adults, 21% admit problems with drugs, and 19% admit alcohol problems. While almost one-half (43%) state they never become involved in fights as adults, 37% report fighting rarely, and 7% are involved in fights more than once a month. The majority of the patients (62%) report having desirable friends and associates as adults, however, 20% admit to friends and associates with known involvement in criminal behaviors. Almost one-third (31%) state they have suffered a head injury in which they lost consciousness. Also, one-fourth of the patients threatened to commit suicide as adults, and 24% unsuccessfully attempted to end their lives. As adults, 26% of the patients state that other people are afraid of them when they lose their tempers.

One-fifth of this sample report to have not been actively dating as adults. Only 28% state they date more than once a week, and 37% engage in dating less than once a week. Of those patients who are married, 60% report to argue with their spouses less than once a week, and 7% more than once a week. But 10% admit to have almost daily disagreements. Also of interest are those married patients who have physically assaulted their spouses during arguments. From this sample, 25% admit to having physically assaulted their spouses during arguments.

Most married patients in this sample have one child ($\bar{X} = 1.03$). Only 26% report taking an active role in the rearing of their children. Fifteen percent admit their children are afraid of them.

Activities During Six Months Before Present Commitment: The data reported here and summarized in Table 5 provides a description of the patients' activities during the six month period prior to the present involuntary hospital admission. During this period, over one-fifth (22%) have been incarcerated. A similar percentage (23%) have lived with their parental family while 14% have lived with their spouses. Less than one-fourth of the patients (18%) report living alone, while 13% have been living with friends or relatives.

Few of the patients (21%) have changed their marital status during this period. A similar number (21%) changed their living situation. Less than one-fourth (21%) of the patients' children have not lived with the patient during this time. Only 13% of the sample indicate that they have not seen their children within the five weeks before the alleged offense and present hospital commitment.

Almost one-half of the patients (49%) have been employed for an unspecified time during this six month period, with only 8% absent from work more than once a month. One-fourth (25%) of the sample has stayed away from home overnight without informing members of their household. Although 59% indicated they have not been involved in fights during the six month period before the present admission, 18% indicate fighting rarely (less than once a month), and 8% report fighting frequently (more than once a month). Regarding the question about types of friends/associates, the majority of patients (59%) describe their friends as desirable, while one-fourth indicate they have undesirable friends/associates with known involvement in criminal behaviors. Less than one-half (39%) of these patients regularly attended church during this six month period.

Concerning the use of alcohol and drugs, 17% of the patients report drinking alcoholic beverages at home frequently (once a day or more) during this period, while 23% report the drinking of alcoholic beverages out of the home frequently. Also, 19% of the patients report they had problems with alcohol during this period. One-fourth (25%) of the sample used soft drugs like marijuana or hard drugs like heroin in their homes, and 31% report using the same drugs outside of their homes.

Finally, 13% of the patients interviewed believe they are better off in the hospital than at home, but less than one-half (38%) believe they would be better off at home than in the mental hospital.

Arrest Information:

The following data from Table 6 summarizes the present alleged offenses of patients that have led to their court ordered commitments to Rusk State Hospital, Maximum Security Unit, for evaluation and/or treatment. The patients in this sample have an average of three ($\bar{X} = 3.3$) past arrests. For only 19% this is their first arrest. Almost one-fourth (23%) have previously spent an average of two years in jails or prisons. Current alleged offense indicates 18% are charged with murder or non-negligent manslaughter, 5% for forcible rape, 8% for aggravated robbery, and 7% for aggravated assault. Considering the above named offenses as assaultive crimes, a total of 38% of the patients are charged with violent offenses. Also from this sample, 18% have no criminal offense against them, while the remaining 48% are charged with an assortment of non-assaultive crimes.

Events related to the alleged offense were investigated by interviewing the patients on admission. Almost one-half (48%) state they did not use a weapon in the commission of the present offense. For those who used weapons, 22% used guns, 6% used knives, and 12% used other unspecified weapons. Over one-fourth of the sample (26%) report their alleged offense was committed under the influence of alcohol, and 20% report the alleged offense was committed under the influence of drugs. However, very few patients (3%) indicate their present offense was committed in order to obtain money for alcohol, and a similar number (4%) indicate the offense was committed in order to obtain money for drugs. Regarding the locations where the present alleged offenses have taken place, most (40%) have occurred in public places, 14% in the home of the victim, and 11% in other unspecified places. Four percent occurred at the patients' place of work, and less than 10% of the offenses (21 cases) occurred in the homes of the patients in the sample. Almost one-half of the present offenses (49%) did not involve a victim. Over one-third (35%) involved one victim, 4% involved two victims, five alleged offenses

involved three victims, and one alleged crime involved four victims. For those offenses that involved victims, 60% of the time the victim was known to the patient.

Results of Psychological Testing

The Revised Beta IQ Test: The Beta is a widely used intelligence test, particularly with hospital and prison populations, and has been highly correlated with other intelligence tests. In the present study the Beta was used as one of the inventories for obtaining an Intelligence Quotient for each forensic patient. Panton (1960) has demonstrated the value of the Beta with male prisoners in the North Carolina Prison Department. He studied the reliability of the Beta with the Wechsler Adult Intelligence Scale. The correlation between Wechsler Adult Intelligence Scale and the Beta for white and negro samples of imprisoned sociopaths revealed that the Beta is a reliable predictor of intelligence within an adult male prison population of low educational and cultural attainment. Patrick and Overall (1968) showed Beta and Wechsler Adult Intelligence Scale scores for female mental patients to be highly correlated. The mean scores for the two tests in the patient population were depressed below the general population norm with pronounced differences for certain diagnostic groups. Dudley, Williams and Overall (1971) examined Beta IQ test performance in relation to a variety of demographic, personal and sociocultural characteristics in a sample of 432 state hospital mental patients. Age, race, history of previous psychiatric hospitalization, education, work achievement, marital status, military and criminal records were each found to be significant independent sources of variation in observed raw score test performance. Beta test performance also differed significantly among various clinical diagnostic groups, providing a sensitive index of acute functional

impairment. In another study Dudley, Mason, and Rhoton (1973) examined Beta IQ test performance in relation to a variety of demographic, personal, and sociocultural characteristics in a sample of 257 young state hospital psychiatric patients. Age, ethnicity, education, length of stay in hospital occupational status, and suicide each were found to be significant independent sources of variation in observed raw score test performance as in the previous study. Beta test performance differed significantly among various clinical diagnostic groups, providing a sensitive index of acute functional impairment.

A number of other studies (Twain and Brooks, 1963; Durrett, 1961; Doppelt, Jerome, and Seashore, 1959; and Zakolski, 1949) have examined the reliability of the Beta with institutional populations. Several additional studies are of particular interest here. Stotsky (1956) in a study of schizophrenic Veterans Administration patients demonstrated the reliability of the Beta with chronic, regressed patients. Kolk (1973) in a study of hospitalized mental patients demonstrated the reliability of the Beta, particularly for patients with a low reading level. Levine and Megargee (1975) used the Beta and the Minnesota Multiphasic Personality Inventory as instruments for predicting academic success in a prison population.

Following are the results of Beta IQ scores and demographic variables for the present sample of forensic patients (N=264). The Beta included six subtest scores plus a total score and an IQ equivalent. The range of scores, median scores, mean scores, and standard deviations on the Beta subtests and total score are presented in Table 7. In reviewing these results, it appears that on an average this group is performing in the Below Average range of intellectual functioning. In comparing the means of this population with the means of the standardization group developed by Lindner and Gurvity, the mean scores on each subtest in the standardization group was 10 with a standard deviation of 3, and the mean IQ was 100 with a standard deviation of 15. A comparison of the interest correlations

(Table 8) of the subtest of the Beta for the standardization group and the present population indicate high correlations between all subtests for each population group. No correlation was less than .51 for any subtest for either group.

Wechsler Adult Intelligence Scale: The diagnostic use of intelligence tests with mental patients has a long history. For example, in a 1936 review article, Hunt concluded that psychotics generally suffer some loss of intellectual efficiency, especially those with central nervous system damage. The various intellectual areas, however, appear to be selectively affected. Vocabulary, for instance, has been observed to be relatively unaffected by the onset of a mental disorder and thus has often been used as a base level for identifying specific intellectual losses. Another measure of the selective impairment of intellectual skills is the degree of "scatter" or unevenness in the relative level of the skills. However, Hunt noted in his review that various measures of scatter had not reliably differentiated mental patients from normal individuals.

When Wechsler introduced the Wechsler-Bellvue scale in 1939, he emphasized its potential use for diagnostic purposes far broader than the mere assessment of intellectual skills. The successor to the Wechsler-Bellvue, the Wechsler Adult Intelligence Scale (WAIS) (Wechsler, 1958) has grown in popularity to the extent that it is part of the standardized test battery in many mental health settings (e.g., Lubin, Wallis, and Paine, 1971). As a result, there has been considerable research of WAIS test patterns.

Of the 288 forensic patients in the present sample, WAIS data are available for 85 (30%). Table 9 contains a breakdown of a number of demographic variables for the group of 85. Chi Square analyses indicate that there are no major differences in the demographic characteristics of the WAIS sample as compared to the total sample.

Table 10 illustrates the overall mean WAIS scores for the group - a Verbal IQ

(VIQ) of 83.8, a Performance IQ (PIQ) of 85.6 and a Full Scale IQ (FSIQ) of 83.9. The mean score of the group falls into Wechsler's (1958) Dull-Normal classification. The FSIQ of 83.9 found in this study is obviously quite comparable to the median of 82.5 reported by Kunce, Ryan, and Eckelman (1976) in a study of a forensic patient group in another state. In the present sample, the median IQ's are very close to the mean scores, and the standard deviations closely approximate those of the original WAIS standardization group (Wechsler, 1958).

The range of scores in Table 11, which again is similar to that reported by Kunce *et al.* (1976), points out the diverse intellectual levels found within the forensic group. The forensic group is underrepresented in the Average and higher intelligence classifications and increasingly overrepresented in the lower classifications. Just under 20% of the sample obtained IQ's in the retarded or "Defective" range; 20% also had Mental Retardation as their primary diagnosis.

In interpreting WAIS results, many clinicians make a special effort to examine the difference between the testee's VIQ and PIQ scores. Wechsler (1958) suggested that a difference of 15 or more points in the two scores is "diagnostically significant." There exists a fairly sizeable body of research supporting this suggestion. For example, the VIQ > PIQ pattern (> means greater than) has been found in individuals with right hemisphere brain damage (Guertin, Ladd, Frank, Rabin, and Hiester, 1966) and murderers diagnosed as psychotic (Fisher, 1960). The PIQ > VIQ pattern, on the other hand, has been associated with left hemisphere damage (Duke, Bloor, Nugent, and Majzoub, 1968), sociopaths (Kahn, 1968), and the mentally retarded (Blatt and Allison, 1968).

According to Zimmerman and Woo-Sam (1973), "the question is not whether VIQ - PIQ differences are significant, but rather what the differences signify." In addition to validation studies with specific diagnostic groups, it is necessary to examine VIQ - PIQ discrepancies in relation to statistical assumptions regarding

chance occurrences. For instance, Zimmerman and Woo-Sam point out that a discrepancy of 25 points was found in about 1% of Wechsler's standardization group. Rabin (1965) noted that a difference of 15 points was observed in 13% of a "normal" population. Nevertheless, in a statistical study of Wechsler's standardization group, Newland and Smith (1967) observed that a difference of 12.8 points met the .01 confidence level.

Contained in Table 12 is analysis of the VIQ - PIQ differences found with the forensic patient. Adopting Wechsler's statistically conservative criterion of a 15+ point discrepancy, the finding that 16.5% of the sample fit the VIQ > PIQ pattern and 10.6% the PIQ > VIQ pattern highlights the potential usefulness of this measure in attempting to understand the forensic patient group.

A comparison of Tables 10 and 11 shows an interesting phenomenon. Although the mean PIQ is 1.8 points higher than the VIQ, over 57% of the sample exhibit a VIQ > PIQ pattern (regardless of magnitude) as compared to less than 38% with a PIQ > VIQ pattern. This finding indicates the possibility that more detailed investigation may be desirable.

Although a testee's scores in relation to the normative population are important for classification purposes, clinicians have further been interested in the pattern or scatter of the scale scores. The research has been less supportive in this area than for VIQ - PIQ differences. In concluding his review of the relevant research, Rabin (1965) stated, "As sole diagnostic indicators that stand alone, the test patterns and scatter profiles have not been successful." Typical of the inconsistent results are those found with various forensic groups. Four studies are particularly relevant, including the present one.

As the premise of his study, Kahn (1959) postulated that, "From a rather general psychoanalytic frame of reference, it was considered that the act of murder could be accounted for by a personality structure in which control of sadistic hostility was generally maintained, but at the same time, occasionally could impulsively break through the defenses."

Kahn proposed that this "rigidity" characteristic of murderers might be reflected by relatively low abstract reasoning skills. Of the four WAIS subtests available for 41 persons admitted to a maximum security unit, Kahn hypothesized that Block Design and Similarities (reflecting abstract reasoning skills) scores would be lower than those for Information and Comprehension (reflecting long-term memory and social judgment skills) for murderers as compared to burglars. The data partially supported the hypothesis in that the relatively lowest scale for the murderer group was Block Design, whereas this same scale was the highest for the burglar group. No significant differences were found between the two groups on the relative rank of the Similarities subtest.

The second study in this series is that of Kunce et al. (1976) in which the pattern of WAIS scale scores of a group of violent offenders was compared to that of nonviolent offenders. They found that the Similarities scale scores were the lowest for the violent group but the highest for the nonviolent group. Their interpretation of the results was similar to Kahn's (1959), i.e., that abstract reasoning deficits may be associated with violent and dangerous behavior.

In the third study, Shawver and Jew (1978) attempted to replicate Kunce et al.'s (1976) results. Their findings were in the opposite direction. Violent patients in a maximum security unit obtained significantly higher Similarities scale scores than nonviolent subjects in the same unit.

The last study in this series is the present one. Examination of Table 13 is particularly interesting in relation to the three previous studies. For the forensic group, Similarities and Block Design are ranked 2nd and 4th, respectively, out of 11 subtests. Thus, one of the relatively highest areas of intellectual skills is abstract reasoning. However, examination of Table 13 also reveals little scatter between the subtests, at least insofar as group means are concerned. Wechsler (1958) suggested that "a difference of over two points between any weighted score of a subtest and the mean subtest score is significant." All of the subtest scores in Table 13 are within 1½ points of the overall mean scale score.

Another measure of scatter adopted for this study was the range between the highest and lowest scale scores for each subject. These results are illustrated in Table 14. With regard to subtest scatter, the data reported in Tables 14 and 15 lead to a much different conclusion than would be drawn from the data in Table 13. Less than 4% of the sample fit the pattern ("nonsignificant" scatter) suggested by the group means in Table 15. In fact, the median subject exhibits "significant" scatter (according to Wechsler's criterion) on five subtests and has a range of 8 points between his highest and lowest scale scores.

Although the subtest group means reported in Table 15 misrepresent the actual amount of subtest scatter in the forensic group, the ranking per se of the subtests appears valid. Support for this conclusion actually comes from the scatter analyses. The frequency with which each subtest deviated "significantly" from the individual's overall mean scale score in either direction is reported in Table 16. The highly systematic inverse relationship between the positive and negative deviation rates for each subtest suggests that the current ranking of the subtests is probably the best possible representation of the group as a whole.

Given the above support for the rank-ordering of the subtests, an interpretation may be made of the relative intellectual strengths and weaknesses of the forensic group. The following interpretations are drawn largely from the work of Zimmerman and Woo-Sam (1963).

The two relatively highest areas of intellectual skill are those measured by the Picture Completion and Similarities subtests. The Picture Completion subtest is presumed to measure visual discrimination skills, e.g., being responsive to "minute and often overlooked details" of the environment. The Similarities subtest is presumed to measure verbal abstract reasoning skills, i.e., not being "stimulus-bound" but rather being able to perceive conceptual relationships.

The next five subtests define the group's intellectual skills falling in the mid-range of strength. The Comprehension subtest presumably measures the degree of social judgment and at least an understanding (if not practice) of ethical issues. The Block Design subtest is presumed to measure abstract reasoning skills as applied to geometric or spatial relationships rather than verbal concepts. The Object Assembly subtest is presumed to measure visual-motor synthesis skills, e.g., understanding how the parts fit into the whole. The Picture Arrangement subtest is presumed to measure social judgment, especially with regard to cause-effect relationships. The Vocabulary subtest measures word knowledge and the ability to express oneself verbally.

The weakest areas of intellectual skill for the forensic group are defined by four subtests. The Arithmetic subtest is presumed to measure ability to perform mathematical operations, especially within a problem-solving setting. The Digit Span subtest presumably measures rote short-term memory and ability to focus one's attention on a given task. The Digit Symbol subtest is assumed to measure ability to learn an unfamiliar task, visual-motor dexterity and short-term memory. Finally, the Information subtest is presumed to measure long-term memory for general information.

A more succinct interpretation of the intellectual profile of the forensic patient group is that they have relatively high abstract reasoning and visual discrimination skills but poor memory and motor dexterity skills. Social judgment and the ability to perceive the whole in relation to its parts are mid-range skills of the group.

In summary, an analysis and interpretation of the WAIS results for a forensic group have been presented. The overall mean performance of the group placed them in Wechsler's Dull-Normal classification, the scores ranging from the Defective to Superior classifications. An analysis of VIQ - PIQ differences revealed that over 27% of the sample had a "significant" discrepancy between these two scores.

Further, a high degree of subtest scatter was found in an analysis of individual protocols. Finally, a clinical interpretation was made of the relative intellectual strengths and weaknesses of the group.

The Minnesota Multiphasic Personality Inventory (MMPI): No studies were found which use the MMPI to describe the forensic patients in maximum security hospital facilities. Among the various actuarial approaches developed for interpreting individual MMPI profiles, however, the work of Gynther, et al. (1973) and Lachar (1974) appears most applicable for interpreting profiles of state hospital patients, including mentally ill offenders.

An important consideration of the use of the MMPI with forensic patients is its possible value in identifying dangerous forensic patients. Here there is a relevant body of research which addresses the issue of the MMPI's utility in identifying violent and nonviolent individuals. Megargee (1970) has contributed the most to this endeavor. First, a number of studies have investigated various MMPI hostility scales with behavioral criteria for identifying violent individuals. The Overt Hostility Scale (Ho) and Hostility Control Scale (Hc), derived by Shutz (1954), were evaluated by Megargee and Mendelson (1962) and Shipman (1965). These authors found that the scales discriminated criminals from non criminals, but could not distinguish violent from nonviolent criminals.

The MMPI scales reflecting impulse control, namely, Ego Overcontrol Scale (Eo), Neurotic Undercontrol (Nu) and Bimodal Control (Bc) were also evaluated (Megargee and Mendelson, 1962). Again the MMPI could not differentiate between violent and nonviolent criminals, but the scales could distinguish criminal from non criminal populations. One scale, the Inhibition of Aggression Scale (Hy-5), also studied by Megargee and Mendelson (1962), appeared to be able to discriminate violent from nonviolent criminals within a population, but in later research (Megargee and Mendelson, 1966), this finding was attributed to chance. Another scale derived from the MMPI, the Manifest Hostility Scale (MHS), evaluated by the same authors, also

could not discriminate violent from nonviolent criminals.

For the clinician in prison or hospital settings, the MMPI has thus not proven to be of value for screening possible violent or dangerous individuals. Megargee and his associates indicated that violent individuals could be divided into Undercontrolled Aggressive and Chronically Overcontrolled sub-types who differed in their inhibitions against the expression of overt aggression. They originally hoped to develop from the MMPI a unidimensional scale for assaultiveness or violence. Although this goal was not obtained, Megargee did develop the Overcontrolled Hostility Scale (OH), which is able to identify the overcontrolled aggressive type of individual. Extremely assaultive, moderately assaultive, non-violent criminals, and non criminals used to construct the OH scale (Megargee and Cook, 1966).

Subsequent studies (Haven, 1972; White, McAdra, Megargee, 1973) have validated the research on the Overcontrolled Hostility Scale. These promising results suggest that assessment of violence might proceed better through the development of specialized instruments to measure different violent sub-types and factors associated with violence, rather than through attempts to construct global MMPI scales of violence. Since one of the goals of the present study is to identify criteria from psychological testing which may be useful in screening dangerous maximum security unit mental patients, the OH scale was included with the ten clinical MMPI scales as one of the assessment instruments in the present study.

The MMPI was administered to 164 male maximum security patients in the present sample. Table 16 presents demographic characteristics of these patients. Sixty-four percent were Anglo, 27% Black, and less than 10% were Latin. On the average, patients were 28 years of age, with the majority (52%) between the ages of 21 and 30. Approximately one-fourth (27%) of these patients completed grades 7 through 9, but over half (56%) completed their education from grades 10 through 12. Half of the patients

(52%) have never married; only 15% are presently married, while 20% are divorced. Over three-fourths (77%) were employed full time before their admission to the hospital. Of those who were employed, nearly one-half (47%) appear to be unskilled laborers, and 28% were not in the labor force.

More than one-half of the patients (59%) have previously been admitted to a Texas Department of Mental Health and Mental Retardation hospital facility. According to American Psychiatric Association diagnostic classification system (DSM-II), nearly half of the patients (44%) have a primary diagnosis of schizophrenia, 10% have Personality Disorders, and 18% have no mental disorders. Three-fourths of the patients have no secondary psychiatric diagnoses, but 18% have secondary diagnoses of Drug Addiction or Alcoholism.

In examining arrest information, 36% of patients administered the MMPI are presently in the maximum security for arrests for violent crimes, including Murder (19%), Forcible Rape (3%), Robbery (9%) and Aggravated Assault (6%). Forty-eight percent of the patients have arrests for nonviolent crimes, especially Motor Vehicle Theft (13%) and Burglary (11%). Arrest data was unavailable for the remaining patients (13%).

Table 17 presents the range of scores for each MMPI clinical scale, including the Overcontrolled Hostility Scale, Median Scores, Means, and Standard Deviations. Of particular interest are the seven scales with T score values of 70 or above. These elevated scales include an F scale mean of 82.8, D scale mean of 70.0, Pd scale mean of 73.1, Pa scale mean of 74.8, Pt scale mean of 70.8, Sc scale mean of 85.9, Ma scale mean of 70.0, with the highest means on the F and Sc scales. The OH scale mean of 57.6 is comparable to the mean score of moderately assaultive prisoners (Megargee, 1966).

Researchers do not agree on methods of accepting or rejecting invalid MMPI protocols on the basis of validity scale configurations. Marks and Seeman (1963) suggest that protocols with F scale values in excess of 25 (100 Ts) be rejected

as non-interpretable. A similar method is suggested by Gynther (1973) and also by Lachar (1968). More stringent standards are recommended by Gilberstadt and Toker (1965) who suggest that profiles in their system not be interpreted if Scale L exceeds 6 OT, Scale F exceeds 85 T, or Scale K exceeds 70 T. Also, when the patient's IQ is less than 105, the MMPI profile should be interpreted with caution.

Most discussions on the validity of an MMPI profile focus on the three validity scales L, F, K, particularly on F scale values, since fluctuations on the F scale affect the elevations of the 10 clinical scales. One factor which may impact F scale scores is the patient's motivation in taking the test. An all true or all false response set to items on the MMPI may result in an elevated F scale. Of the 37 MMPI profiles in our sample with F scale scores above 100 T, none were rejected on this ground. Another hypothesis which may result in an elevated F scale is what clinicians describe as the patient "faking bad," i.e., deliberately presenting himself poorly. For the purpose of the present study, the possibility of a patient "faking bad" is not being considered. A third factor which may cause an elevated F scale is inadequate reading skills.

On examining the 37 individual MMPI protocols in our sample with an F scale value exceeding 100 T, we find that none of the 37 patients have a WRAT reading level below 5.2. In fact, only 2 of these patients have a reading level, as determined by the WRAT, below 6.0. Accordingly, we are accepting all 164 MMPI protocols in our sample. Elevated F scale profiles may provide important information on identifying dangerous and not dangerous maximum security patients.

Finally, from an examination of the clinical scale mean values, the MMPI test results also provide important clinical information about the sample (Table 2). With seven clinical scales at or above mean values of 70 T, the MMPI results describe serious psychopathology. Applying Lachar's method (1974) for interpreting the MMPI, the sample may be described as follows: According to Lachar's rules,

the overall profile is valid, with an 8-6 code type. Configuration of the validity scales L, F, K, suggests that these individuals have significant psychological problems. The modal diagnoses for the 6-8/8-6 code type patients in the Lachar sample (N=284) was Paranoid Schizophrenia. Seventy percent were diagnosed Schizophrenic; 17% with Other Psychotic Disorders, and 10% with Personality Disorders.

Buss-Durkee Inventory (BDI): One of the supplementary psychological test instruments selected in this study was the Buss-Durkee Inventory (Buss and Durkee, 1957). Although the Buss-Durkee Inventory has not been previously used with forensic patients, it has been used with psychiatric populations in order to derive measure of hostility and agitation. I. S. Clark (1970) studied the characteristics of all types of emergency psychiatric admissions and their performance on the BDI and other inventories measuring hostility. Buss, Fisher, and Simmons (1962) studied admissions to an acute treatment center for psychiatric patients and identified the amount of aggression and hostility associated with these patients.

Morrison, Chaffin, and Chase (1975) used the BDI on a sample of 100 adolescent inpatients to measure aggressive impulses. Scores of the inpatient adolescent group were compared with a sample of 438 high school students according to age, sex, and race. The high school group had higher aggression scores than the inpatient adolescent group. Female patients, however, had higher aggression scores than the high school group, and surprisingly had higher aggression scores than the male patient group.

Gunn and Gristwood (1975) administered the BDI to a group of long term British prisoners, many of whom had committed violent crimes. Small interscale correlations revealed slight differences in the subtypes of aggression, but do not support a global concept of aggression. Violence may be a behavior too complex for unidimensional evaluation. Perhaps the BDI measures aggressive attitudes rather than behavior.

Young (1976) studied aggression in a sample of male adolescent patients in a residential treatment program. The Marlowe-Crowne Social Desirability Scale, Daydreaming Questionnaire, Dryne Repression-Sensitization Scale, and the BDI were administered to patients identified as high and low aggressive groups. High aggressors were significantly lower in their social desirability needs and significantly higher in their daydreaming, hostile attitudes and sensitization than were low aggressive patients.

Edmunds (1976) studies aggression with a sample of 95 mental patients. Each patient was rated for aggression by two nurses and a psychiatrist. Although the three sets of ratings had significant correlations with each other, there was no correlation with the BDI aggression subscales. The results suggested that the study of aggression in mental patient samples needs a more sophisticated design which accounts for other variables, such as age and severity of illness.

A number of studies have also compared the Buss-Durkee Inventory with other psychological inventories. Bendig (1962) compared the BDI with the Maudsley Personality Inventory. A factor analysis of these two inventories indicates that the general factor or correlated factors measured by BDI subscales are separate from the previously identified factors of Extraversion-Introversion and Emotionality identified with the Maudsley Personality Inventory. The hostility factor of the BDI was found to be correlated with Emotionality, but not with Extraversion-Introversion.

Clark (1970) compared the BDI with the Caine-Foulds Inventory. He concluded that there is a high correlation between the Caine-Foulds and the Buss-Durkee total hostility scores; and that although Buss and Durkee do not include "Guilt" in their own published total hostility scores, its inclusion or exclusion does not significantly improve the correlation.

Berbowitz (1968) compared the Buss Aggression Machine (BAM), the BDI and Role Playing. These three indices were assumed to lie along a continuum measuring aggressive responses. The BAM related to no measures while the BDI and Role Playing

were correlated but not along a continuum of aggressive responses. The study suggested that these measures of aggression may fall along two dimensions: physical and verbal.

Galassi and Galassi (1975) compared the BDI with the College Self-Expression Scale. The College Self-Expression Scale and the BDI were administered to 100 female and 71 male college students. The only significant and positive correlation was between the assertiveness scale and the verbal aggression scale for the female sample. The other BDI scales were either unrelated or inversely related to assertiveness. The amount of shared variance between the scales was small.

Rabinowitz (1975) studied the relationship of hostility and fantasy capacity. One hundred two male high school freshmen and sophomore students were administered a daydreaming questionnaire, BDI, and Rotter Incomplete Sentences Blank. The latter was scored for hostility by the Renner, Maher, and Campbell method. The subjects also rated one another on a sociometric scale measuring behavioral hostility. Subjects were divided into high and low fantasy groups. Analyses of variance were computed on the hostility measure data for 108 subjects. The independent variables were fantasy capacity and peer ratings of hostility. In every instance, significant results were obtained for the fantasy capacity measure and not for the peer rating measure. There was no positive correlation between the sociometric ratings and the hostility measures. In view of the results, the hostility measurement instruments are interpreted as measures of an individual's capacity to regard himself as hostile, rather than as measures of the actual hostility of his behavior.

Monti (1977) studied the relationships between testosterone level and components of aggressive and sexual behavior. One hundred one healthy male students were administered the BDI, the Taylor Manifest Anxiety Scale (MAS), the Marlowe-Crowne Social Desirability Scale (SDS), a sexual interest and activity questionnaire, and serum testosterone and cortisol levels were assessed. No correlations were found between testosterone and BDI measured aggression or attributed aggression. A general lack of relationship was also found between testosterone and sexual activity

and interest with the exception of a positive relationship between testosterone and current frequency of masturbation.

Heyman (1977) studied the relationships between dogmatism, hostility, and aggression for males and females. Subjects were 74 male and 109 female college students who were administered the Dogmatism (D) Scale, BDI, Megargee Overcontrolled Hostility Inventory, Gough-Sanford Rigidity Scale, and the Marlowe-Crowne Social Desirability Scale. Significant positive relationships were found between dogmatism and hostility for both males and females. This confirmed theoretical formulations that postulated the more dogmatic subjects to be pervasively hostile, rather than limited to specific expressions of hostility, such as prejudice. Only for males, however, was a significant negative relationship found between dogmatism and overcontrolling of hostility. In this, and other relationships, males appeared to be more able to integrate aggressive behaviors into personality patterns. While dogmatism related to several personality patterns, it had no relationship to social desirability. Rigidity and dogmatism presented essentially different personality constellations. Feelings of guilt were related significantly to disaffected patterns such as dogmatism, hostility, and aggression, which suggests a turning inward of feelings of anger and disappointment in addition to their outward expression.

BDI scores and demographic variables were recorded for the present sample of 271 forensic patients. The group is very similar in general demographic characteristics to the entire population of forensic patients investigated. The range of scores, median scores, mean scores, and standard deviations on the BDI is presented in Table 18. The scale with the highest mean score is Assault; Guilt is the scale with the lowest mean score.

In comparing the means of this sample with the means of the male standardization group, a t test was conducted between the means and standard deviations reported by the mentally abnormal population and the mean and standard deviations reported by Buss and Durkee for college males. Results of this analysis (Table 19) indicate

there were significant differences between these two groups on all eight scales of the BDI and on the total score. The forensic patients had mean scores that were significantly higher than the male standardization group on assault, indirect hostility, negativism, resentment, suspicion, and total score.

Holtzman Inkblot Technique (HIT): Because the differential perception of inkblots reflects individual thought processes, numerous standardized sets of inkblot stimuli have been developed for use in the areas of personality assessment and psycho-diagnosis. The Rorschach Technique has become the dominant projective technique used by clinicians. However, it lacks the reliability and validity necessary to be used as a psychometric device for making quantitative measurements. In order to have an instrument with psychometric value plus the qualitative richness of the Rorschach, Wayne H. Holtzman and his colleagues developed the Holtzman Inkblot Technique (Holtzman, 1958). Homogeneous populations were pooled, and percentile norms for eight reference groups (college students, average adults, seventh graders, fourth graders, five-year-olds, chronic schizophrenics, mental retardates, and depressives) were constructed for each of 22 variables scored by developing cumulative frequency distributions and converting them into percentile ranks. A major difference between the Rorschach and the HIT is that only one response is allowed for each of the inkblots and a brief inquiry is allowed immediately following each response. This inquiry consists of questions concerning the clarification of location, characteristics of the blot, or elaboration of the response. To facilitate the interpretation of inkblot scores, observed correlations were reduced to a smaller number of factors by the centroid method of factor analysis. This factor analysis of the normative data revealed that six orthogonal factors account for the correlations among the variables.

Factor I is defined by Movement, Integration, Human, Form Definiteness, Popular, and Barrier. The clustering of the first five variables indicates that this factor relates to perceptual maturity, integrated ideational activity, and awareness of conventional percepts. The addition of Barrier broadens the scope of this factor

to include the notion of well-differentiated ego boundaries. Rejection, being indicative of a paucity of constructive inner resources, has low-order negative correlations with this factor. As could be expected, Location leads negatively for the normal samples and positively for the abnormal groups, even though the loadings are generally negligible.

Factor II is a bipolar factor defined at the positive pole by Color and Shading and at the negative pole by Form Definiteness. These three variables relate directly to the stimulus qualities of the inkblots. A higher score on Color indicates a greater responsiveness to the color content of the inkblots, frequently to the detriment of the determinant of form. Conversely, form dominance is often to the detriment of the stimulus qualities of color and shading. Since Form Definiteness served as a marker variable for both Factors I and II, it is interesting to note that when the loading is very high on one factor, it is low on the other, although all loadings are positive on Factor I and negative on Factor II. According to Rorschach interpretation, the use of pure form as a determinant is indicative of a constricted, rigid personality, while the use of color and shading reflect affective responsiveness and rich fantasy.

Factor III appears to be indicative of disordered thought processes, bizarre perception, and an active, but emotionally disturbed, fantasy life. Pathognomic Verbalization is the best definitive measure of this factor with high loadings also being obtained consistently for Anxiety and Hostility. Loadings for Movement vary across samples, ranging from near-zero for the abnormal samples to the high fifties and low sixties for the college samples. Apparently, Pathognomic Verbalization is linked to Movement in the normal adult, whereas it appears to be associated with poor Form Appropriateness in psychotic adult, young child, or mental retardate. A rather interesting finding on this factor is that a group of severely deteriorated, chronic schizophrenics obtained a rather high loading on Pathognomic Verbalization (.51) but had reversals on both Anxiety and Hostility, -.49 and -.39, respectively.

Factor IV is not sharply defined due to the fact that much of the variance of its two marker variables - Location and Form Appropriateness - is accounted for in the first three factors. This factor is bipolar in that one sample of schizophrenics obtained negative loadings for Anatomy and Abstract as well as, to a lesser degree, Space, Sex, and Penetration, while Pathognomic Verbalization, Anatomy, and Sex are negatively loaded among the other samples. These negative loadings usually reflect immaturity, diffuse bodily preoccupation, and disturbed thought processes, whereas, positive loadings on Location and Form Appropriateness is indicative of perceptual differentiation and an adequate form level.

Factor V is a bipolar factor defined by Reaction Time, Rejection, and Animal (reversed). That is, the longer the Reaction Time and the greater the number of Rejections, the fewer the number of Animal responses. This relationship, as well as the tendency for Location to show significant negative loadings on this factor, may be related to scoring procedures, since Location and Animal are always scored 0 whenever Rejection is scored 1. For this reason, this factor is considered of minor importance.

Factor VI is a true residual factor largely defined by Penetration, Anatomy, and Sex, but also including Space, Abstract, Balance, and Affect Arousal. High scores on the three main variables would be indicative of emotional immaturity, bodily preoccupations, and possible psychopathology. It is noted that for this factor, no general pattern emerges which can be applied across samples, and there was no residual factor for two of the samples.

During the standardization of the HIT, several reliability studies were carried out. For nine variables - FA, C, Sh, V, I, Ax, Hs, Br, and Pn - intrascorer stability for a highly trained scorer was .95 or above with a median value of .99. For two other examiners with lesser experience but who were judged to be competent scorers, intrascorer consistency ranged from .78 to .95 with a median of .87 and from .63 to .94 with a median of .84. When the correlation coefficients for each of the three

examiners were pooled to obtain an average for each of the variables scored, the mean self-consistency coefficients ranged from .89 to .97. Some of the variables not scored in this study (e.g., Location, Movement, Reaction Time, and Rejection) should present no problem in scoring and yield relatively higher scoring consistency, while others can be scored just as consistently by following the HIT administration and scoring procedures.

In two separate studies of interscorer consistency involving highly trained scorers, correlation coefficients ranged from .91 to .99 for the scoring of six variables and from .89 to .995 with a median value of .98 for the scoring of fifteen variables. In a third study involving four scorers representing a wide range of experience, the nine variables of the previous study of intrascorer consistency yielded reliability coefficients ranging from .73 to .89 with a median value of .86. It should be noted that these correlations were obtained prior to the completion of the scoring manual and included scoring by some relatively inexperienced individuals.

Estimates of internal consistency were obtained for each of the 22 variables by using either the split-half method (Spearman-Brown prophecy formula) or one of the Kuder-Richardson formulas using item parameters. In general, reliability coefficients were high. The six variables that have reasonably normal distributions - Reaction Time, Location, Form Definiteness, Form Appropriateness, Animal, and Popular - have generally accurate reliability coefficients ranging from the high 80's to the low 90's. Reliability estimates for the remaining variables tend to be lower due to the skewness of the distribution for some of the sample groups. For a detailed discussion of the effect of truncation and the rejection of cards, the reader is referred to the tables presented in the monograph which give the statistics for each sample group on each variable (Holtzman, *et al.*, 1961, pp. 110-130).

Considerable validity data have accumulated on the HIT. Of particular interest is the degree of comparability of the scoring systems of the HIT and the Rorschach. In a study specifically designed to address this inquiry (cf. Bock, Haggard, Holtzman, Beck, and Beck, 1963), eight scores correlated significantly beyond the .01 level in the expected direction. Conclusions of the study were that even though the two tests are separate approaches to personality assessment, they have a great deal in common as far as the underlying meaning of the variables is concerned. Concurrent validity of the two tests on the Pathognomic Verbalization score was substantiated in a later study by Whitaker (1965).

In general, there has not been shown any significant relationship between paper-and-pencil approaches to personality assessment and inkblot scores (Barger and Sechrest, 1961; Codkind, 1966; Fehr, 1976; Moseley, Duffey, and Sherman, 1963). Further, inkblot scores are not related to verbal intelligence, but they have been shown to be related to other forms of cognitive functioning such as rigidity (Kidd and Kidd, 1971).

Developmental trends (Thorpe and Swarts, 1965, 1966; Witzke, Swartz and Drew, 1971) as well as behavioral indicators of specific personality characteristics (Fisher, 1967; Megargee, 1970; Sanders, 1976, 1977; Shipman, 1965) have also been investigated. Significant age trends have been found which tend to support organismic-developmental theory positing a hierarchical integration of perceptual functioning with increasing age, and the HIT variables of Pathognomic Verbalization, Anxiety, Hostility, and Form Appropriateness have been found to be indicators of personal adjustment when viewed retrospectively over a nine-year period (Currie, Holtzman, and Swartz, 1974).

The HIT has been employed predominantly in the research setting in which quantitative measurements are required, however, it has been shown to be useful in psychodiagnosis as well. Moseley (1963) conducted a study to determine the effectiveness of the HIT as a psychodiagnostic instrument in the discrimination of normal and

abnormal groups. Subjects were 100 chronic paranoid schizophrenic patients, 100 mixed depressives, and 100 normal subjects. Cross-validation groups for the normals and schizophrenics were 73 normal eleventh graders and 38 mixed chronic schizophrenics, respectively. Protocols were scored for all 22 variables but only 16 variables were used in the study. Weights were applied to the set of scores for each individual in order to derive a discriminate score (D) for use in diagnosis - the sum of the weights times the original scores equals D. If D is greater than the cutting point (U), the individual is classified as normal. If D is less than U, he is classified as schizophrenic. The 16 HIT variables were highly significant in discriminating between the normal controls and each of the clinical populations with the amount of discrimination for each comparison group being as follows: normal-schizophrenic - 88% correct, normal-depressive - 71% correct, depressive-schizophrenic - 78% correct, normal-schizophrenic control group - 88% correct. These results indicate that the HIT has considerable potential in the area of psycho-diagnosis.

In a rather comprehensive study, Swartz (1970) investigated qualitative differences in Pathognomic Verbalization responses among samples of normal, schizophrenic, depressed and mentally retarded subjects who were matched for quantitative V scores as well as age and sex. He found the following significant differences:

1. When normals were compared to schizophrenics, normals gave significantly more FB and FC and less CT responses than schizophrenics.
2. When normals were compared to mentally retarded subjects, significantly more normals gave FB, FC, and QR responses and less gave AB responses than the retardates.
3. When normals were compared to depressives, significantly more depressed patients than normals gave SR responses.
4. When schizophrenics were compared to mental retardates, significantly more schizophrenics gave SR responses and significantly more mental retardates gave AB responses.

5. When schizophrenics were compared to depressives, more depressives gave FB responses and more schizophrenics gave AL responses.
6. When mental retardates were compared to depressives, more depressives gave FB, FC, and SR responses, and significantly more retardates gave AL and AB responses.

Other studies have shown that the V variables can successfully differentiate between schizophrenics, neurotics, and normals (Shukla, 1976), but the HIT has been unable to differentiate between brain-damaged and schizophrenic subjects (Velez-Diaz, 1975, 1976).

The most complete reference for using the HIT in the clinical setting is The Holtzman Inkblot Technique: A Handbook for Clinical Application (Hill, 1972). The book is divided into four parts, each dealing with a more advanced level of clinical application. The first part deals with the mechanics of administration and scoring, including the presentation of a refined scoring system. The second part concerns the interpretation of scoring variables, and part three relates scoring variables to various personality variables. The final section summarizes the previous material by giving samples of scoring and interpretations of test responses. A workbook has also been constructed to be used in conjunction with this sourcebook for clinical application of the HIT.

One of the reasons that the HIT has not been used extensively in the clinical setting is that interpretation of scores in terms of percentile ranks is relatively difficult. To facilitate such interpretations, Megargee and Velez-Diaz (1971) developed a profile sheet using T-scores similar to the ones used with the Minnesota Multiphasic Personality Inventory (MMPI) and the California Psychological Inventory (CPI). A Standard Profile sheet was first developed using the means and standard deviations of the original normative study to compute T-score equivalents. This form facilitated the rapid assimilation of the pattern of HIT scores, but it did not readily point out distinctive profile configurations for the different types

of psychopathological cases due to the arrangement of the scales. So, a second form was developed.

The result of the second endeavor was the Clinical Form of the HIT Profile Sheet which has six distinct groups or clusters of scales. Cluster I concerns the subject's reactions to the stimuli (RT, R). These scores can indicate whether the client was defensive, compulsive, impulsive or stuperous. Cluster II deals with the manner of approach and organization of the blot (L, S, B, FD). This cluster indicates the degree of achievement motivation, relative concern for the finer details or the broader outlines of experience - amount of organization, basically. Cluster III indicates reality contact and communality (FA, A, P). Cluster IV is associated with intelligence and maturity (M, I, Br, H, Ab). These scores (except for H) correlate positively with intellectual ability and reflect ambition. Additionally, M, H, and Br indicate concern for others and ego strength. Cluster V reflects emotional responsivity (C, Sh, Ax, Hs, Pn), including feelings of anxiety and vulnerability. Moderate elevations of these variables may reflect a well-integrated emotional responsiveness, while more extreme elevations probably suggest emotional ability. Cluster VI is an indicator of psychopathology (V, Sx, At) with V representing the extent of schizophrenic thought. These profiles are useful as a first step in the interpretive process of inkblot scores.

Scores on various inkblot variables have been associated with different types of aggression and hostility. In a review of the literature, Megargee (1970) noted the following relationships between inkblot variables and violence:

1. Br is significantly negatively correlated with ratings of aggressiveness, and extremely assaultive juveniles have shown significantly lower Br scores than juveniles who are less delinquent.
2. Color has been related to impulsivity and lack of control.
3. Movement is higher for extremely assaultive delinquents.

4. Explosive color responses have been significantly associated with violent behavior on the ward in a sample of neuropsychiatric patients.
5. Expansive movement is associated with aggressive behavior under the influence of alcohol.

With respect to (1) above, Megargee (1965) found that means of Br scores for delinquent groups were significantly lower than norms for 7th and 11th graders as reported in the Holtzman, et al. (1961) reference groups. Furthermore, extremely delinquent subgroups had a mean Br score significantly lower than that of the less seriously delinquent subgroups. Finally, the Br score was negatively but insignificantly correlated with scores for verbal and physical aggressiveness derived from a behavior checklist, but there was a significant positive correlation with the global rating of aggressiveness. It was concluded by Megargee that people with low Br scores tend to be more aggressive, assertive, and impulsive than people with high Br scores.

These results were discussed in terms of a Br score being regarded as an index of adjustment rather than as an index of anger (cf. Sailor and Ponder, 1968). In this regard, high Br scores are associated with adaptive behavior while low Br scores are associated with maladjusted behavior. Those with the greatest ego diffusion would have the lowest Br scores and would be the most likely to be seriously delinquent as opposed to those who have established an adequate ego identity, because they would be more apt to experiment with various roles, including that of the delinquent. The notion that the ego diffusion and body image confusion of adolescence is reflected in low Br scores and the Br score may be an index of ego identity as opposed to ego diffusion is further supported by the norms indicating that adolescents have lower scores than those obtained by other non-clinical groups. Also, schizophrenics, who have a notoriously poor sense of either body boundary definiteness or ego identity, have lower Br scores.

Megargee (1966) has interpreted the difference obtained in Br scores for the two delinquent groups in terms of undercontrolled and overcontrolled personality types. He proposes that persons with inadequate control will exhibit aggression more readily than a person who is chronically overcontrolled, and they will be described as aggressive. The overcontrolled person, on the other hand, will be assessed as less hostile, less aggressive, since aggressive impulses must build up to higher levels before being expressed. The result is that when it is expressed, the result will be more murderously assaultive. This interpretation does well to explain behavior post hoc, but it cannot predict future behavior. This is an area for further research inasmuch as the variables contributing to the suppression of aggressive impulses need to be examined as well as the threshold level at which murderously assaultive acts are expressed.

Studies so far on impulsivity have been rather inconclusive. Hardison (1969) found that the ratio of soft shading to color reflected a statistically significant difference in impulse control between an impulsive group and an inhibited group, but neither of these groups were found to be significantly different from a control group. Another finding was that the inhibited group differed significantly from the other two groups on the color variable alone, and there were no significant differences among the groups in inhibition as measured by soft shading. These results suggest that both overinhibited and uninhibited persons have the same potential for impulse control. These findings also lend support for the notion that the response to color is a more passive and the response to soft shading a more active mode of perception of inkblot stimuli.

Speare (1973) related behavioral aggression to subjects' hostility and impulse control scores, as measured by the HIT and MMPI, respectively. The only hypothesis that was clearly supported was that high hostility/high control subjects would score higher than low hostility/high control subjects on the criteria for aggressiveness, a questionnaire adapted from the Buss-Durkee Inventory. The hypothesis

that low hostility/low control would score higher than low hostility/high control was partially supported, and, contrary to prediction, the data indicated that the high hostility/high control group scored higher than the high hostility/low control group, a finding which actually would be congruous with Megargee's (1966) theory of overcontrolled and undercontrolled aggression.

Rosenstiel (1973) investigated the relationship between the Hs variable and the personality traits of aggression and hostility. The predisposition to aggression and the predisposition to hostility are viewed as relatively stable personality traits with outbursts of either being determined by circumstances and lasting for only brief temporal intervals. Those persons predisposed to aggression should react aggressively to a frustrating situation, and persons predisposed to hostility should react with hostility. These reactions should be reflected by Hs scores following presentation of frustrating stimuli in that persons predisposed to hostility should give more Hs responses. This is, in fact, what the study showed. The predispositions toward hostility and aggression, as measured by the Buss-Durkee Inventory, were not significantly influenced by frustration. This suggests that they are relatively steady, lasting characteristics which are not influenced to any degree by situational variables. The significant increase in Hs responses on the HIT following frustration was significantly correlated with the predisposition to hostility but not with the predisposition to aggression.

The effect of vicarious participation in overt hostility on Hs scores was investigated by Shalit (1970). Subjects were three groups of 200 new national service recruits in Israel. Hs and Ax scores were obtained a year before the Arab-Israeli 6-day war, immediately following the war, and a year after the war. Results showed that Hs responses were lower immediately after the war than in either the previous or following year, but there was no such reduction in anxiety.

From the preceding two studies, it would appear that the Hs score on the HIT

may be affected by environmental variables. For this reason, extreme care should be taken in the interpretation of this variable. It is well to remember that both Ax and Hs as scored by the HIT "are strictly ratings at a fantasy level which are not necessarily related in any simple, direct way to overt behavior that is judged to be anxious or hostile." (Holtzman, et al., 1961, pp. 180-181).

Certain responses to inkblot stimuli have been associated with particular personality correlates. Most inkblot responses are based upon the colored or the black area of the blot. When the white space of a blot is used in a figure-ground reversal, a Space (S) response is scored. A study conducted by Sanders (1976) indicates that there is a correlation between the S response and the personality traits of aggression and autonomy. Subjects were 15 male and 32 female volunteers from an introductory psychology class. They were group-administered a special set of 25 Holtzman inkblots that have maximum likelihood of eliciting the S response, and measures of aggression and autonomy were obtained from the Personality Research Form (PRF). There was a significant positive correlation between S and Aggression and a significant negative correlation between S and Autonomy. From these data, a personality profile indicates that high S scorers tend to be dependent individuals who may feel insecure or helpless without the sympathy, protection, and reassurance of others, and they also tend to be somewhat aggressive, irritable, and argumentative.

Rorschach interpreted the Abstract (Ab) response to indicate a passive orientation and an incapacity to maintain a central thought. Other investigators have suggested that the Ab response is an indicator of superior intelligence, sensitivity, superior persons who are leaders, reformers, and doers. In order to examine and clarify the meaning of the Ab response, Sanders (1977) administered the group form of a special set of 20 inkblots that were determined to maximally elicit the Ab response to 30 males and 33 females. Subjects were instructed to give two responses per blot, and immediately thereafter they were given a group-administered form of the PRF.

Results of the Sanders study showed that none of the Ab responses were color-dominated, and there were no significant sex differences in them. Point-biserial correlations were then computed between Holtzman Ab scores and each of the 22 variables on the PRF. Significant positive correlations for Achievement, Endurance, Change, and Sentience were found for males together with significant negative correlations for Harmavoidance and Order. Significant positive correlations for Dominance, Nurturance, Exhibition and Social Recognition were found for females together with significant negative correlations for Abasement and Affiliation. Separate personality descriptions can be derived for males and females on the basis of these correlations, but overall, persons who give Ab responses appear to be sensitive and active individuals.

In the present study, the HIT was administered to 269 forensic patients. Means and standard deviations of all HIT variables are presented in Tables 20 - 42. Each of these variables is briefly discussed individually since they vary considerably in distribution. A preliminary comparison with the original HIT reference population (Holtzman, et al., 1961) is incorporated in the discussion. Distributions of all HIT variables are presented in a composite table (Table 20). Results of percentile norms for each of the 22 HIT variables for the present forensic patient sample are presented with means and standard deviations for (a) the total group of forensic patients, (b) sub group of forensic patients classified as dangerous, and (c) the sub group of forensic patients classified as not dangerous.

Space: Space ($\bar{X} = .68$) has a severely truncated distribution of scores. Only four patients in this sample obtained scores greater than three. These findings are essentially similar to many of the original HIT samples. Only three of Holtzman's original sample groups (elementary school children, chronic schizophrenics and

mentally retarded) differ substantially. With respect to these variables, the present sample most resembles the normal population in the original sample.

Reaction Time: The distribution of Reaction Time ($\bar{X} = 14.3$) is skewed, with a higher range of scores for the top 12% than for the lowest 12%. The distribution of Reaction Time does not appear to be similar to any of the groups in the Holtzman study.

Abstract: Abstract ($\bar{X} = .71$) is also a relatively rare variable in this patient population. Eighty-two percent of patients tested gave no Abstract response; 94% had scores of three or less. In this respect, this population resembles all of original HIT populations with the exception of college students.

Rejection: Rejection ($\bar{X} = 12.6$) was relatively common in this population; both means and percentile norms resembling those for five year olds, chronic schizophrenics, and mentally retarded samples in the Holtzman population.

Location: As in the Holtzman's study, Location ($\bar{X} = 19.6$) is fairly normally distributed. The mean and percentile norms most resemble those for chronic schizophrenics and mentally retarded sub groups in the Holtzman study.

Balance: Balance ($\bar{X} = .71$) is, as in Holtzman's study, both rare and truncated in distribution. Sixty-eight percent of patients in this study gave no Balance response, and 93% had scores of two or less. Means and percentile norms both resemble most closely those for average adults and mentally retarded samples.

Form Appropriateness: Distribution of Form Appropriateness ($\bar{X} = 31.9$) is approximately normal. Both mean and percentile norms closely resemble those for the mental retardate sample in the Holtzman study.

Color: Color ($\bar{X} = 10.5$) is normally distributed for this sample as for college students and average adults. Color is rather less common in this population than in any of the Holtzman samples, the mean of 10.5 being less than half that of several in the Holtzman study.

Form Definiteness: Form Definiteness ($\bar{X} = 75.6$) is normally distributed in this sample. The mean, standard deviation and percentile norms are markedly similar to those of the Holtzman study for the retardate group.

Shading: The distribution of Shading ($\bar{X} = 6.2$) is fairly normal for this population as for most of those in the Holtzman study. The mean is quite discrepant from those reported for average adults and college students in the Holtzman study.

Movement: Although Movement ($\bar{X} = 17.0$) is only slightly skewed, as in the Holtzman data, the mean of 17.0 is not markedly similar to any of the Holtzman samples. It is substantially higher than those for chronic schizophrenics or mentally retarded, much lower than those for college students and average adults.

Hostility: Hostility ($\bar{X} = 6.1$) most resembles the distribution for average adults in the Holtzman study. This distribution for Hostility slightly skewed upward for Holtzman's groups with a truncation in chronic schizophrenics, and the mentally retarded.

Barrier: The distribution of Barrier ($\bar{X} = 2.9$) is truncated in the present study. Barrier in the present study mostly resembles the distribution for the mentally retarded sub group in the Holtzman study in means, standard deviations, and percentile rankings.

Anxiety: Anxiety ($\bar{X} = 8.2$) is slightly skewed in this study. The distribution does not appear to resemble any of the sub groups in the Holtzman study, although the range of scores is closest to the schizophrenic group in the Holtzman study.

Anatomy: The distribution of Anatomy ($\bar{X} = 4.5$) is skewed. The mean score is higher in the present study than in any of the Holtzman sub groups, and the range of scores in the present study is greater than for any of the Holtzman groups.

Pathognomic Verbalization: Distribution of Pathognomic Verbalization ($\bar{X} = 10.6$) is skewed and truncated. Although the range of scores closely resembles the range of scores for the retardate sub group, the mean score is closest to the five year old group in the Holtzman's study.

Sex: Distribution of Sex ($\bar{X} = 1.1$) is markedly truncated. The mean for Sex closely resembles the means for the schizophrenic and depressed groups in the Holtzman study, as well as the range of scores for the depressed sub group.

Human: The distribution for Human ($\bar{X} = 14.6$) is skewed, and roughly resembles the distribution for the average sub group in the Holtzman study.

Penetration: The distribution for Penetration ($\bar{X} = 4.27$) is skewed and truncated. The mean score and range closely resemble the schizophrenic sub group in the Holtzman study.

Animal: Animal ($\bar{X} = 18.5$) has a fairly normal distribution, and closely resembles the schizophrenic sub group in the Holtzman study.

Integration: Integration ($\bar{X} = 4.8$) is skewed and truncated. Mean scores and variability appear similar, as well as between, the average adult and depressed patient groups in the Holtzman study.

Popular: The distribution of Popular ($\bar{X} = 5.2$) is fairly normal. The mean, range of scores, and percentile ranking closely resemble the retardate group in the Holtzman study.

As might be anticipated, the forensic patients do not closely resemble any of the criterion groups originally tested by Holtzman. Just as their diagnostic, intellectual, age, and educational characteristics vary from those of his samples, so do their HIT scores. The primary reason for inclusion of this instrument was to provide reliable data from a projective technique for use in development of an equation for prediction of dangerousness in forensic patients. Interpretation of the findings will be confined to exploring, in the next phase of the study, the relationship between these variables and the prediction of dangerousness.

Inter-Institutional Comparisons

In addition to the data previously presented pertaining to the characteristics of the forensic patient population, some preliminary data were collected from a general psychiatric population and from a population of inmates of a correctional institution. The forensic patient is viewed by society as a sort of hybrid; both prisoner and patient. It is of considerable interest to planners and administrators to know if this is in fact the case; if present approaches to treatment of the mentally abnormal offender are appropriate to the characteristics of the population. While an exhaustive comparison of prison and hospital inmates is beyond the scope of the present study, some limited information was collected on selected samples of patients and prisoners.

Differences in administrative procedures, record formats, and population characteristics of mental health and penal institutions precluded collection of data which were directly comparable across groups, but a subset of the instruments used with forensic patients was administered to 55 prison inmates and 54 general psychiatric patients. These samples were stratified for age, ethnicity, and education. Sample size on individual tests and/or demographic items vary slightly due to incomplete protocols.

The results of this survey are presented in Tables 3 to 131. All comparisons must be seen as no more than suggestive of possible areas for further investigation, but inspection of the data does provide some clues in this regard.

All groups are rather similar during the developmental years, with the exception that the patient groups show earlier and more frequent referral for emotional problems. As adults, many more patients than prisoners have threatened or attempted suicide. They are also more often feared by others, perhaps an indication that they may be viewed as emotionally disturbed. Prisoners show more previous arrests.

Forensic patients show fewer previous arrests than do prisoners but more than do general psychiatric patients (Table 99). Several other categories are suggestive that prisoners may differ from patients in, for example, use of drugs or alcohol, but the large percentage of prisoners who refused to give information in these areas makes any interpretation premature. Generally, prisoners were more reluctant to give such information about themselves than were patients. Social histories of prisoners also tend to be less complete than those of patients, making corroboration or amplification of self-reports difficult.

Psychological test data are presented in Tables 129 to 131. MMPI, Buss-Durkee, and Holtzman Inkblot Technique results are inconclusive. Differences do exist between mean scores, but not in any consistent direction nor in any pattern strongly suggestive of the findings of previous research regarding the differences between populations. As with demographic information, caution must be exercised regarding the interpretation of comparison between groups, but it does appear that prisoners may be functioning at a higher intellectual level than either of the patient groups. The mean Beta IQ for both patient groups was 85.8 for forensic patients, 86.8 for general psychiatric patients; the mean for prisoners was 102.3. While sampling factors may have accounted for some of this difference, it seems likely that a genuine difference may exist between patient and penal populations in this regard. Certainly these findings are at least strongly suggestive.

In general, the differences between the groups are those which common sense would predict; the patient groups are rather alike in showing more history of emotional problems. The prisoner group has a greater history of legal problems, with the forensic patients falling between the other two groups in this regard.

The Imaginal Processes Inventory

Another projective technique, the Imaginal Processes Inventory, was administered to 63 forensic patients. Results of this study are included here in a separate paper (Appendix A) which was presented at the 1st Annual TDMHMR Conference on Forensic Psychiatry, September, 1977. Preliminary findings suggest that this instrument revealed differences in the fantasy content of forensic patients and general psychiatric patients. Factor analysis suggested that there was little overlap between the IPI and the HIT.

TABLE 1a

Demographic Characteristics of Forensic Patients
Within the Texas Department of Mental Health and Mental Retardation (N = 288)

Ethnicity		
Group	Number	Percentage
Anglo	137	48
Latin	35	12
Negro	115	39
Other	1	1
Religion		
Group	Number	Percentage
Protestant	182	64
Catholic	51	18
Other	11	3
None	23	8
Unknown	21	7
Military Status		
Group	Number	Percentage
Veteran	92	31
Non Veteran	151	53
In Service	2	1
Unknown	43	15
Marital Status		
Group	Number	Percentage
Never Married	162	57
Married	45	16
Separated	19	7
Widowed	10	3
Divorced	43	15
Common Law	5	1
Unknown	4	1

TABLE 1b
Occupation

Group	Number	Percentage
Professional Technician	8	2
Clerical	3	1
Sales Worker	4	1
Craftsman	26	10
Private Household Service Worker	3	1
Other	129	45
Student	3	1
Not in Labor Force	94	33
Unknown	18	6

Employment Status

Group	Number	Percentage
Employed Part Time	3	1
Employed Full Time	6	2
Unemployed: Able to Work	24	8
Unemployed: Unable to Work	28	9
Unemployed: Retired	3	1
Unemployed: Other Reason	170	60
Not in Labor Force	50	18
Unknown	4	1

Previous TDMHR Hospital Care

Group	Number	Percentage
Yes	182	64
No	101	35
Unknown	5	1

Previous TDMHR Outpatient Care

Group	Number	Percentage
Yes	89	31
No	132	45
Unknown	67	24

Previous TDMHR State School

Group	Number	Percentage
Yes	17	5
No	247	86
Unknown	24	9

TABLE 1c

Education Completed

Group	Number	Percentage
0-3 Grade	15	5
4-6 Grade	22	8
7-9 Grade	83	29
10-12 Grade	128	45
Some College	23	8
College Graduate	6	2
Unknown	11	3

Living Situation

Group	Number	Percentage
Alone	94	33
Spouse	23	8
Family	137	48
Roommate	8	2
Institution	18	6
Other	1	1
Unknown	7	2

Age at Admission

Group	Number	Percentage
16-20	38	12
21-30	150	54
31-40	55	20
41-50	30	10
51-60	7	2
61+	8	2

TABLE 1d

County of Residence		
Group	Number	Percentage
Bexar	21	8
Dallas	40	14
Harris	57	21
Tarrant	12	4
Travis	13	4
Bell	5	1
El Paso	5	1
Howard	3	1
Jefferson	6	2
Johnson	6	2
Liberty	3	1
Lubbock	3	1
Nacogdoches	5	1
Nueces	3	1
Orange	6	2
Smith	3	1
Van Zandt	3	1
Others	94	34

Primary Diagnosis

Group	Number	Percentage
Schizophrenia	130	46
Other Function Psychosis	20	6
Psychotic OBS	6	2
Non-Psychotic OBS	14	4
Neuroses	11	3
Alcoholism	7	2
Drug Abuse	9	3
Mental Retardation	26	10
Personality Disorder	24	9
Transient Behavioral Disturbance	3	1
No Mental Disorder	38	14
	56	

TABLE 1e

Secondary Diagnosis		
Group	Number	Percentage
Schizophrenia	3	1
Psychotic OBS	3	1
Non-Psychotic OBS	4	1
Neuroses	3	1
Alcoholism	8	2
Drug Abuse	33	12
Mental Retardation	6	1
Personality Disorder	3	1
Transient Behavioral Disturbance	2	1
Other	3	1
No Mental Disorder	1	1
Undiagnosed	219	77

TABLE 2a

Family Background Characteristics of Forensic Patients
Within the Texas Department of Mental Health and Mental Retardation

Father or Male Guardian Living		
Group	Number	Percentage
Yes	93	33
No	173	60
Unknown	22	7
Mother or Female Guardian Living		
Group	Number	Percentage
Yes	64	22
No	205	71
Unknown	19	7
Completed Education of Father or Male Guardian		
Group	Number	Percentage
0-3 Grade	21	7
4-6 Grade	20	6
7-9 Grade	38	14
10-12 Grade	64	23
Some College	22	8
College Graduate	14	4
Unknown	109	38
Completed Education of Mother or Female Guardian		
Group	Number	Percentage
0-3 Grade	11	3
4-6 Grade	19	6
7-9 Grade	32	12
10-12 Grade	102	36
Some College	18	6
College Graduate	11	3
Unknown	95	34

TABLE 2b

Family Admissions to Mental Hospitals

Group	Number	Percentage
Father: Yes	107	38
Unknown	165	57
Mother: Yes	108	38
Unknown	165	57
Sibling(s): Yes	23	7
Unknown	265	93
Other Relatives: Yes	39	13
Unknown	248	86
Parents Divorced		
Group	Number	Percentage
Yes	88	30
No	179	62
Unknown	21	8
Age of Patient at Parent's Divorce		
Group	Number	Percentage
0-3	19	6.6
4-6	19	6.6
7-9	10	3.5
10-12	10	3.5
13-15	12	4.2
16+	13	4.5
No Applicable	179	62.1
Unknown	26	9.0
Parents Owned Home		
Group	Number	Percentage
Childhood Years (0-12): Yes	157	55
Unknown	28	9
Adolescent Years (13-17): Yes	167	57
Unknown	29	9

TABLE 2c
Stable Source of Family Income

Group	Number	Percentage
Childhood Years (0-12): Yes	238	83
Unknown	28	9
Adolescent Years (13-17): Yes	266	79
Unknown	30	10

Frequency Principal Wage Earner Change Job

Group	Number	Percentage
Patient Childhood Years (0-12)		
Less than once per year	213	74
More than once per year	20	7
Unknown	55	19
Patient Adolescent Years (13-17)		
Less than once per year	206	72
More than once per year	22	7
Unknown	60	21

Mother or Father with Alcohol Problems

Group	Number	Percentage
In Patient Childhood Years (0-12):		
Yes	72	25
Unknown	32	12
In Patient Adolescent Years (13-17):		
Yes	61	22
Unknown	37	13

Family Moves Within Same City During Patient Childhood/Adolescence

Group	Number	Percentage
0	80	27
1	32	12
2	19	6
3	35	12
4	25	8
5	17	5
6	10	3
7	5	2
8	3	1
9	2	1
10	15	5
11	10	3
Unknown	45	15

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TABLE 2d

Family Moves to Other Cities During Patient Childhood/Adolescence

Group	Number	Percentage
None	139	49
1	30	11
2	16	5
3	12	4
4	10	3
5	9	3
6	9	3
7	3	1
8	0	0
9	2	1
10+	9	3
Unknown	49	17

Years Patient Lived With Father or Male Guardian

Group	Number	Percentage
1	7	9
2	9	4
3	3	6
4	4	8
5	5	159
6	2	0
7	8	0
8	8	0
9	5	0
10	5	0
11	2	0
12	188	0
Never	17	75
Unknown	25	27

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TABLE 2e

Years Patient Lived with Mother or Female Guardian		
Years	Childhood (0-12)	Adolescence (13-17)
1	0	3
2	1	7
3	1	7
4	2	12
5	3	214
6	0	0
7	3	0
8	5	0
9	1	0
10	2	0
11	1	0
12	239	0
Never	5	22
Unknown	25	23

Total Number of Patient's Brothers and Sisters

Brothers/Sisters	Number of Patients
0	20
1	35
2	39
3	31
4	36
5	24
6	18
7	14
8	11
9	8
10	5
11	4
12	2
13	4
14	1
15	1
16	2
Unknown	53

TABLE 3a

Patient Characteristics in Childhood and Adolescence

Patient Referred for Emotional Problems

Group	Number	Percentage
Childhood Years (0-12): Yes	30	10
Unknown	36	12
Adolescent Years (13-17): Yes	65	22
Unknown	37	14

Patient Acknowledges Problems in School

Group	Number	Percentage
Yes	56	20
No	82	28
Unknown	150	52

Estimation of Patient School Grades

Group	Number	Percentage
In Elementary School (Grades 1-8)		
Below Average (D, F)	46	16
Average (C)	122	43
Above Average (A, B)	94	33
Unknown	25	8
In High School (Grades 9-12)		
Below Average (D, F)	45	16
Average (C)	101	36
Above Average (A, B)	66	22
Unknown	76	26

Number of Grades Failed by Patients

Number grades	Number patients	Percentage
1	35	12
2	15	5
3	10	3
4+	2	1
None	177	62
Unknown	49	17

TABLE 3b

Frequency of Corporal Punishment as Child (0-12)

Group	Number	Percentage
Never	32	11
Rarely (Less than once a month on average)	111	38
Frequently (More than once a month on average)	116	40
Unknown	29	11

Frequency of Corporal Punishment as Adolescent (13-17)

Group	Number	Percentage
Never	121	42
Rarely (Less than once a month on average)	90	31
Frequently (More than once a month on average)	41	14
Unknown	36	13

Patients with Drug Problem in Adolescence

Group	Number	Percentage
Yes	56	19
No	205	71
Unknown	27	10

Patients with Alcohol Problem in Adolescence

Group	Number	Percentage
Yes	56	19
No	206	71
Unknown	26	10

TABLE 3c

Estimate of Age Patients Began Dating

Age	Number	Age	Number
6	1	17	26
7	2	18	19
8	3	19	4
9	2	20	7
10	5	21	4
11	2	22	3
12	24	23	1
13	28	24+	2
14	27	Never	17
15	41	Unknown	36
16	34		

Patients Moving Away From Family in Adolescence

Group	Number	Percentage
Yes	176	62
No	90	31
Unknown	22	7

Patients Receiving Head Injuries with Loss of Consciousness

Group	Number	Percentage
Yes	91	31
No	125	44
Unknown	72	25

TABLE 4a

Patient Adult Life Characteristics

Patients Dating As Adult		
Group	Number	Percentage
More than once a week	82	28
Less than once a week	105	37
No	59	20
Unknown	42	15

Patients Having a Drug Problem		
Group	Number	Percentage
Yes	62	21
No	192	66
Unknown	34	13

Patients Having an Alcohol Problem		
Group	Number	Percentage
Yes	57	19
No	199	69
Unknown	32	12

Patients Taking Active Role in Rearing Children		
Group	Number	Percentage
Yes	75	26
No	23	9
Unknown	45	15
Not Applicable	145	50

Patients Involved in Fighting		
Group	Number	Percentage
Never	122	43
Rarely (Less than once a month)	105	37
Frequently (More than once a month)	21	7
Unknown	40	13

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TABLE 4b

Frequency of Patients Arguing with Spouse

Group	Number	Percentage
Less than once a week	75	26
More than once a week	9	3
Almost daily	12	4
Unknown	30	10
Not applicable	162	57

Patients Physically Assaulting Spouse During Arguments

Group	Number	Percentage
Yes	31	11
No	77	27
Unknown	18	5
Not applicable	162	57

Patients Acknowledging People Fear Them

Group	Number	Percentage
Yes	74	26
No	152	52
Unknown	62	22

Patient's Children Afraid of Patient

Group	Number	Percentage
Yes	41	15
No	6	2
Not applicable	145	50
Unknown	96	33

Frequency Patients Discipline Children with Physical Punishment

Group	Number	Percentage
Never	50	18
Rarely (Less than once a month on average)	31	11
Frequently (More than once a month on average)	9	3
Not applicable	145	50
Unknown	53	18

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TABLE 4c

Patients Threatening to Commit Suicide

Group	Number	Percentage
In Childhood Years (0-12): Yes	8	4
Unknown	37	12
In Adolescent Years (13-17): Yes	20	8
Unknown	37	12
In Adult Years (18+): Yes	71	25
Unknown	38	13

Patients Attempting to Commit Suicide

Group	Number	Percentage
In Childhood Years (0-12): Yes	3	1
Unknown	32	12
In Adolescent Years (13-17): Yes	19	7
Unknown	34	12
In Adult Years (18+): Yes	68	24
Unknown	42	14

Number of Patient's Children

Number of Children	Number of Patients	Percentage
1	41	14
2	29	10
3	17	5
4	9	4
5	7	3
6	3	1
7	1	1
8+	2	1
None	145	50
Unknown	34	11

Number of Patient Marriages

Number Times	Number Patients	Percentage
1	89	31
2	18	6
3	13	4
4	2	1
Never	162	57
Unknown	4	1
	68	

TABLE 4d

Patients Visited with Children Within 5 Weeks
Before Alleged Offense and Admission to Jail on Hospital

Group	Number	Percentage
Yes	57	19
No	39	13
Not applicable	145	50
Unknown	47	18

Number of Jobs Patients Had As Adults

Number of Jobs	Number of Patients	Percentage
None	20	6
1	30	11
2	29	10
3	32	12
4	25	9
5	23	10
6	19	7
7	11	3
8	5	1
9	1	1
10	18	5
11	2	1
12	5	1
13+	13	4
Unknown	50	19

Patients Description of Their Friends and Associates

Group	Number	Percentage
Desirable	176	62
Undesirable	60	20
Unknown	52	18

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TABLE 5a

Patient Characteristics During Six Months
Before Commission of Alleged Offense and Admission to Jail or Hospital

Change in Patient Living Situation		
Group	Number	Percentage
Yes	62	21
No	199	70
Unknown	27	9
Change in Patient Marital Status		
Group	Number	Percentage
Yes	62	21
No	199	70
Unknown	27	9
Patient Employment Status in 6 Month Period		
Group	Number	Percentage
Yes	141	49
No	91	31
Unknown	56	20
Patient Description of Friends and Associates		
Group	Number	Percentage
Desirable	162	57
Undesirable	72	25
Unknown	54	18
Patient Living Situation		
Group	Number	Percentage
Living alone	49	18
Living in group quarters (e.g., Boarding House)	10	3
Living with spouse (His wife or member of opposite sex)	38	14
Living with friends	12	4
Incarcerated (in jail or another hospital)	65	22
Living with relatives	27	9
Living with parental family	64	23
Other	23	7
	70	

TABLE 5b

Children Living with Patient

Group	Number	Percentage
Entire period	25	8
Part of the period	12	4
None of the period	60	21
Not applicable	166	58
Unknown	25	9

Social Dating Activities of Unmarried Patients

Group	Number	Percentage
Yes	76	26
No	109	38
Not applicable	77	27
Unknown	26	9

Absenteeism From Work for Employed Patients

Group	Number	Percentage
Rarely (less than once per month)	116	40
Frequently (more than once per month)	22	8
Not applicable	125	44
Unknown	25	8

Patient Overnight Absenteeism from Home
Without Informing Members of Household

Group	Number	Percentage
Yes	73	25
No	92	32
Not applicable	101	36
Unknown	22	7

Patient Involved in Fighting

Group	Number	Percentage
Never	166	59
Rarely (less than once a month)	51	18
Frequently (more than once a month)	23	8
Unknown	40	15

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TABLE 5c

Patient Drinking Alcoholic Beverages in Home

Group	Number	Percentage
Never	80	28
Rarely (less than once a week)	96	33
Frequently (more than one or two drinks a day)	49	17
Unknown	63	22

Patient Drinking Alcoholic Beverages Out of Home

Group	Number	Percentage
Never	60	20
Rarely (less than once a week)	98	35
Occasionally (more than once a week)	42	15
Frequently (more than one or two drinks a day)	25	8
Unknown	63	22

Patients Acknowledging Problem with Alcohol

Group	Number	Percentage
Yes	55	19
No	170	60
Unknown	63	21

Patients Using "Soft" or "Hard" Drugs in Home

Group	Number	Percentage
Never	147	52
Rarely (less than once a week)	37	12
Frequently (once a day or more)	40	13
Unknown	64	23

Patients Using "Soft" or "Hard" Drugs Out of Home

Group	Number	Percentage
Never	134	47
Rarely (less than once a week)	50	17
Frequently (once a day or more)	43	14
Unknown	61	22

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TABLE 5d

Patients Regularity of Church Attendance

Group	Number	Percentage
Yes	115	39
No	144	50
Unknown	29	11

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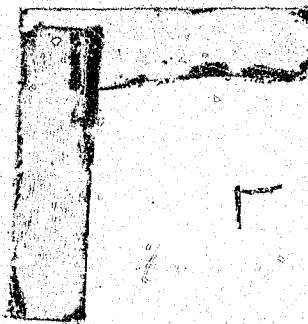
TABLE 6a

Arrest Information of Patient At Time of Hospital Admission

Patient Arrest Which Lead to Hospital Admission		
Group	Number	Percentage
Murder and Non-Negligent Manslaughter	49	18
Forcible Rape	15	5
Robbery	21	8
Assault (Aggravated)	20	7
Burglary	32	12
Larceny - Theft	17	6
Motor Vehicle Theft	29	11
Other Assault (Not Aggravated)	3	1
Arson	10	4
Forgery	3	1
Weapons, Possession, etc.	8	3
Sex Offenses, Except Rape and Prostitution	5	1
Narcotic Drug Laws	6	2
Driving Under the Influence	2	1
Disorderly Conduct	1	1
Other Offense	14	5
Unknown	39	14
Weapon Used in Alleged Offense		
Group	Number	Percentage
Gun	61	22
Knife	19	6
Hands	11	3
Other	26	9
Unknown	32	12
Not applicable	139	48
Alleged Crime Committed Under Influence of Alcohol		
Group	Number	Percentage
Yes	76	26
No	146	50
Unknown	66	24
	74	

TABLE 6b

Location of Alleged Crime		
Group	Number	Percentage
Home of patient	21	7
Public place	110	40
Place of work	12	4
Home of victim	42	14
Other	34	11
Unknown	69	24
Alleged Crime Committed Under Influence of Drugs		
Group	Number	Percentage
Yes	59	20
No	164	56
Unknown	65	24
Alleged Crime Committed to Obtain Money for Alcohol		
Group	Number	Percentage
Yes	11	3
No	212	73
Unknown	65	24
Alleged Crime Committed to Obtain Money for Drugs		
Group	Number	Percentage
Yes	13	4
No	211	73
Unknown	64	23
Number of Victims Involved in Alleged Offense		
Group	Number	Percentage
1 Victim	101	55
2 Victims	11	3
3 Victims	5	1
4 Victims	1	1
Not applicable	141	48
Unknown	29	12
	75	



CONTINUED

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TABLE 6c

First Victim Known to Defendant		
Group	Number	Percentage
Yes	62	22
No	51	17
Not applicable	101	35
Unknown	74	26

First Victim was Family Member		
Group	Number	Percentage
Husband	2	1
Wife	8	2
Parent	9	3
In-Law	2	1
Uncle/Aunt	2	1
Cousin	3	1
Other relative	9	3
Not applicable	146	50
Unknown	107	38

First Victim Same Ethnic Background as Patient		
Group	Number	Percentage
Yes	81	29
No	28	9
Not applicable	169	59
Unknown	10	3

Threat of Physical Injury to First Victim		
Group	Number	Percentage
Yes	42	14
No	66	22
Not applicable	113	39
Unknown	67	25

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TABLE 6d

Physical Injury to First Victim		
Group	Number	Percentage
No Physical Injury	46	16
Some Physical Injury, but victim not treated in hospital	4	1
Victim Hospitalized, treated, released	10	3
Victim Hospitalized, serious condition	6	2
Victim Hospitalized, critical condition	3	1
Physical Injury resulted in Victim's death	42	15
Not applicable	101	35
Unknown	76	27

Relationship of First Victim to Patient		
Group	Number	Percentage
Male child	1	1
Female child	4	1
Male adolescent	4	1
Female adolescent	6	2
Male adult	55	19
Female adult	45	15
Not applicable	83	30
Unknown	90	31

Second Victim a Family Member		
Group	Number	Percentage
Parent	1	1
Child	2	1
Other relative	3	1
Not applicable	169	58
Unknown	113	39

Second Victim Same Ethnic Background as Patient		
Group	Number	Percentage
Yes	15	7
No	4	1
Not applicable	152	52
Unknown	117	40

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TABLE 6e

Threat of Physical Injury to Second Victim		
Group	Number	Percentage
Yes	6	2
No	12	4
Not applicable	178	61
Unknown	92	33

Physical Injury to Second Victim		
Group	Number	Percentage
No physical injury	12	4
Victim hospitalized, treated, released	3	1
Physical injury resulted in victim's death	7	2
Not applicable	160	55
Unknown	106	38

Second Victim Known to Defendant		
Group	Number	Percentage
Yes	10	3
No	11	4
Not applicable	150	52
Unknown	117	41

Relationship of Second Victim to Patient		
Group	Number	Percentage
Male child	3	1
Female child	1	1
Male adolescent	3	1
Female adolescent	1	1
Male adult	9	3
Female adult	3	1
Not applicable	180	62
Unknown	88	30

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TABLE 6f

Patient Preference for Living Arrangements		
Group	Number	Percentage
Hospital	40	13
Prison	3	1
Home	108	38
Unknown	137	48

Frequency of Patients Previous Arrests			
Number Arrests	Number Patients	Number Arrests	Number Patients
1	50	12	0
2	44	13	1
3	22	14	0
4	15	15	0
5	9	16	1
6	4	17	1
7	3	18	0
8	2	19	2
9	0	20	3
10	12	21+	5
11	1	Not applicable	56
		Unknown	57

Length of Time Patients Spent in Jail	
Number years	Number Patients
1 Year	14
2 Years	17
3 Years	7
4 Years	5
5 Years	4
6 Years	2
7 Years	3
8 Years	1
9 Years	2
10 Years	4
11 Years +	6
Not applicable	188
Unknown	35

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TABLE 7

RANGE OF RAW SCORES, MEDIAN, MEANS AND STANDARD DEVIATIONS ON THE REVISED BETA EXAMINATION
(Mentally Abnormal Offenders)
RUSK STATE HOSPITAL

Revised Beta Examination Subtests	Range of Raw Scores	Median Scores	Means	Standard Deviations
Maze	0-15	10	9.083	3.459
Digit Symbol	1-15	9	8.242	3.132
Error Recognition	2-16	9	8.943	3.137
Form Board	3-15	6	6.996	3.023
Picture Completion	0-18	9	8.769	3.378
Identification	0-17	9	8.212	3.357
Total Score	9-82	51	50.273	16.081
IQ	35-125	87	85.758	18.709

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TABLE 8
 REVISED BETA EXAMINATION
 (Correlation Matrix for Forensic Population)

Revised Beta Subjects								
	Maze	Digit Symbol	Error Recognition	Form Board	Picture Completion	Identification	Total Score	IQ
Maze	1.0000	.6295	.5769	.5114	.5097	.5748	.7729	.6813
Digit Symbol		1.0000	.6673	.5611	.6410	.7146	.8548	.7214
Error Recognition			1.0000	.6203	.6963	.6452	.8468	.7820
Form Board				1.0000	.6475	.6000	.7814	.7373
Picture Completion					1.0000	.6987	.8412	.8015
Identification						1.0000	.8521	.7762
Total Score							1.0000	.9106
IQ								1.0000

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(Correlation Matrix for Standardization Group)^a

Maze	1.0000	.62	.51	.52	.55	.54	.68
Digit Symbol		1.0000	.60	.57	.67	.72	.86
Error Recognition			1.0000	.74	.76	.58	.82
Form Board				1.0000	.62	.51	.75
Picture Completion					1.0000	.56	.83
Identification						1.0000	.78
Total Score							1.0000

^aLindner and Gurvity (1957)

TABLE 9

DEMOGRAPHIC CHARACTERISTICS OF FORENSIC PATIENTS WITH WAIS DATA

Age at Admission		
	N	%
16-20	12	14.1
21-30	50	58.8
31-40	15	17.6
41-50	7	8.2
51-60	0	0.0
61+	1	1.2

Marital Status		
	N	%
Never Married	63	74.1
Married	9	10.6
Divorced	6	7.1
Widowed	3	3.5
Common Law	1	1.2
Separated	1	1.2
Unknown	2	2.4

Primary APA Diagnosis		
	N	%
Schizophrenia	43	50.6
Other Functional Psychosis	3	3.6
Psychotic OBS	2	2.4
Non-Psychotic OBS	4	4.7
Mental Retardation	17	20.0
Personality Disorder	5	5.9
Trans. Sit. Beh. Disturbance	1	1.2
Neurosis	2	2.4
Alcoholism	2	2.4
Drug Abuse	1	1.2
No Mental Disorder	5	5.9

Ethnic Group		
	N	%
Anglo	39	45.9
Negro	28	32.9
Latin	18	21.2

Regular Education Completed		
	N	%
0-3 Grade	4	4.7
4-6 Grade	9	10.6
7-9 Grade	26	30.6
10-12 Grade	29	34.1
Some College	10	11.8
College Graduate	4	4.7
Unknown	3	3.5

Previous TDMHMR Residential Hospital Care		
	N	%
Prior Care	68	80.0
None	14	16.5
Unknown	3	3.5

TABLE 10

MEASURES OF CENTRAL TENDENCY FOR THE WAIS SCORES

	Mean	Median	Standard Deviation	Range
VIQ	83.8	83	17.8	48-128
PIQ	85.6	87	17.2	43-122
FSIQ	83.9	84	16.8	50-123

TABLE 11

DISTRIBUTION OF WAIS FULL SCALE IQ'S
ACCORDING TO WECHSLER'S INTELLIGENCE CLASSIFICATIONS

Classification	IQ Limits	(MACO)N	(MACO)%	(Wechsler)%
Very Superior	130+	0	0.0	2.2
Superior	120-129	2	2.4	6.7
Bright-Normal	110-119	4	4.7	16.1
Average	90-109	25	29.4	50.0
Dull-Normal	80-89	21	24.7	16.1
Borderline	70-79	17	20.0	6.7
Defective	69 and Below	16	18.8	2.2

TABLE 12

VERBAL VS. PERFORMANCE IQ DISCREPANCIES FOR THE FORENSIC GROUP

Discrepancy	N	%
VIQ > PIQ (15+ points)	14	16.5
VIQ > PIQ (1-14 points)	35	41.2
VIQ = PIQ	4	4.7
PIQ > VIQ (1-14 points)	23	27.1
PIQ > VIQ (15+ points)	9	10.6

TABLE 13

RANK-ORDERING OF WAIS SUBTEST MEANS AND OTHER MEASURES
OF CENTRAL TENDENCY FOR THE FORENSIC GROUP

Scale	Mean	Median	Standard Deviation	Range
Picture Completion (P)	8.9	9	3.6	3-18
Similarities (V)	8.5	9	3.7	0-19
Comprehension (V)	7.9	8	3.8	0-18
Block Design (P)	7.8	9	3.4	0-16
Object Assembly (P)	7.5	7	3.4	0-16
Picture Arrangement (P)	7.5	7	3.8	0-18
Vocabulary (V)	7.2	6	4.2	0-19
Arithmetic (V)	6.9	7	3.5	0-18
Digit Span (V)	6.9	7	3.3	0-16
Digit Symbol (P)	6.3	7	3.0	0-15
Information (V)	6.3	6	3.6	0-17

Overall Mean Scale Score = 7.4

TABLE 14

THE RANGE OF WAIS SUBTEST SCORES FOR INDIVIDUAL FORENSIC GROUP

Range	N	%
3	3	3.5
4	1	1.2
5	12	14.1
6	12	14.1
7	11	12.9
8	11	12.9
9	15	17.6
10	5	5.9
11	8	9.4
12	3	3.5
13	2	2.4
14	1	1.2
15	0	0.0
16	1	1.2

Mean = 7.9

Median = 8

TABLE 15

RANK-ORDERING OF THE WAIS SUBTEST MEANS AND THEIR DEGREE OF "SCATTER" FOR THE FORENSIC GROUP

Subtest	Group Mean	Number and % of Positive Deviations (> Mean)	Number and % of Negative Deviations (< Mean)
Picture Completion	8.9	30 (35.3%)	8 (9.4%)
Similarities	8.5	27 (31.8%)	8 (9.4%)
Comprehension	7.9	24 (28.2%)	13 (15.3%)
Block Design	7.8	20 (23.5%)	7 (8.2%)
Object Assembly	7.5	20 (23.5%)	16 (18.8%)
Picture Arrangement	7.5	19 (22.4%)	16 (18.8%)
Vocabulary	7.2	19 (22.4%)	17 (20.0%)
Arithmetic	6.9	10 (11.8%)	23 (27.1%)
Digit Span	6.9	9 (10.6%)	20 (23.5%)
Digit Symbol	6.3	8 (9.4%)	30 (35.3%)
Information	6.3	10 (11.8%)	35 (41.2%)

The highly systematic inverse relationship between the positive and negative deviation rates for each subtest suggests that the current ranking of the subtests is probably the best possible representation of the group as a whole.

TABLE 16

Demographic Characteristics of Forensic Patients Administered MMPI (N=164)

Characteristics	Values
<u>Age at Admission</u>	
Percent 16 - 18	2
Percent 19 - 21	16
Percent 22 - 25	26
Percent 26 - 30	26
Percent 31 - 40	18
Percent 41 - 50	10
Percent 51 - 60	2
Mean Age At Admission	28.6
<u>Ethnic Background</u>	
Percent Anglo	64
Percent Black	27
Percent Latin	9
<u>Present Marital Status</u>	
Percent Never Married	52
Percent Divorced	20
Percent Married	15
Percent Separated	7
Percent Widowed	4
Percent Common Law	1
<u>Education Completed</u>	
Percent 0 - 3 Grade	1
Percent 4 - 6	2
Percent 7 - 9	27
Percent 10 - 12	56
Percent Some College	10
Percent College Graduate	2
Percent Unknown	2
<u>Occupational Category</u>	
Percent Professional Technician	4
Percent Clerical	2
Percent Sales Worker	2

TABLE 16 (Continued)

Characteristics	Values
Percent Craftsman, Foreman	12
Percent Other	47
Percent Student	2
Percent Not in Labor Force	28
Percent Unknown	4
<u>Primary Diagnosis</u>	
Percent Schizophrenic	44
Percent Personality Disorder	10
Percent Other Functional Psychosis	8
Percent Neuroses	6
Percent Drug Abuse	4
Percent Non Psychotic OBS	3
Percent Mental Retardation	2
Percent Alcoholism	2
Percent Transient Behavioral Disturbance	1
Percent Psychotic OBS	1
Percent No Mental Disorder	18
<u>Secondary Diagnosis</u>	
Percent Drug Abuse	15
Percent Alcoholism	3
Percent Neuroses	2
Percent Psychotic OBS	1
Percent Mental Retardation	1
Percent Personality Disorder	1
Percent Undiagnosed	76
<u>Patients' Offenses According to Uniform Crime Code Report</u>	
Percent Murder, Non Negligent Manslaughter	19
Percent Forcible Rape	3
Percent Robbery	9
Percent Aggravated Assault	6
Percent Burglary	11
Percent Larceny - Theft	4
Percent Motor Vehicle Theft	13
Percent Simple Assault	1
Percent Arson	2
Percent Forgery	1
Percent Weapons	4
Percent Sex Offenses	2
Percent Narcotic Drug Laws	2
Percent Driving Under the Influence	1
Percent Disorderly Conduct	1
Percent Other Offenses	6
Percent Not Applicable	13

RANGE OF RAW SCORES, MEDIAN, MEANS AND STANDARD DEVIATIONS ON THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

MMPI Scales	Range of T Scores	Median Scores	Means	Standard Deviations
L	0-83	53	54.140	11.293
F	42-162	79	82.762	24.649
K	29-81	51	51.067	10.885
Hs	35-113	65	67.043	16.478
D	29-126	70	69.933	17.337
Hy	36-98	62	63.695	12.760
Pd	36-109	71	73.098	12.489
Mf	22-90	63	62.451	10.427
Pa	41-114	73	74.762	17.424
Pt	28-110	71	70.726	15.886
Sc	34-154	86	85.866	24.103
Ma	26-120	70	69.994	14.879
Si	0-103	60	57.488	12.559
Oh	0-88	56	57.585	12.428

TABLE 17

16

TABLE 18

RANGE OF RAW SCORES, MEDIAN, MEANS AND STANDARD DEVIATIONS ON THE BUSS DURKEE

Buss-Durkee Scales	Range of Raw Scores	Median Scores	Means	Standard Deviations
Assault	1-13	6	6.24	2.472
Indirect Hostility	0-9	5	5.15	2.576
Irritability	0-10	5	5.08	2.643
Negativism	0-8	3	3.48	2.180
92 Resentment	0-11	5	4.57	2.849
Suspicion	0-8	4	3.52	2.178
Verbal Hostility	0-10	5	4.68	2.665
Guilt	0-5	2	2.26	1.537
Total Score	2-67	34	34.98	14.145

TABLE 19

COMPARISON OF FORENSIC PATIENTS WITH MALE COLLEGE STANDARDIZATION POPULATION

Buss-Durkee Scales	Means Scores and Standard Deviations for Forensic Population		Means Scores and Standard Deviations for College ^a Male Population		t
	Means	S.D.	Means	S.D.	
Assault	6.24	2.47	5.07	2.48	3.79**
Indirect Hostility	5.16	2.57	4.47	2.23	4.92**
Irritability	5.08	2.64	5.94	2.65	-2.60**
Negativism	3.48	2.18	2.19	1.34	5.12**
Resentment	4.57	2.85	2.26	1.89	6.96**
Suspicion	3.52	2.18	3.33	2.07	6.85**
Verbal Hostility	4.68	2.66	7.61	2.74	-8.73**
Guilt	2.26	1.53	5.34	1.88	-15.16**
Total Score	34.98	14.14	30.87	10.24	2.47*

* P < .05

**P < .01

^a These means and standard deviations are reported in "An Inventory for Assessing Different Kinds of Hostility", by Arnold Buss and Ann Durkee (October 1956).

TABLE 20

Means and Standard Deviations of HIT Variables
in Original TDMHR Study

HIT Variables	Texas MSU Original Sample (N=269)		MSU Not Dangerous (N=163)		MSU Dangerous (N=106)	
	M	SD	M	SD	M	SD
FD	75.7		74.6	21.4	77.2	19.0
FA	31.9		32.2	11.0	31.4	9.2
RT	14.8		15.1	8.0	14.4	7.8
Rj	12.6		12.7	11.7	12.3	11.0
S	.7		.7	1.0	.7	.9
B	.7		.9	2.6	.5	.8
C	10.5		9.7	9.3	11.8	12.4
Sh	6.2		6.0	7.2	6.3	4.9
M	17.0		15.5	13.8	19.3	14.4
I	4.8		4.8	4.3	4.9	4.0
H	14.6		14.4	10.1	15.0	10.1
AN	18.5		18.2	11.3	19.0	9.9
At	4.5		4.9	8.8	3.9	5.8
Sx	1.1		1.0	2.3	1.2	10.0
Ab	.7		.6	2.0	.9	2.1
Ax	8.2		7.2	7.7	10.0	9.0
Hs	6.1		5.0	5.0	7.8	8.1
BR	2.9		2.8	2.7	3.1	2.8
Pn	4.2		4.5	5.3	3.8	3.1
L	19.6		19.0	12.3	20.6	13.5
V	10.6		9.2	12.4	12.7	16.9
P	5.2		5.4	3.4	4.9	2.9

TABLE 21

Percentile Norms for Space

Raw Score	Maximum Security Patients		
	MSU	Dangerous	Not Dangerous
7	--	--	--
6	--	--	--
5	--	--	99
4	99	99	99
3	99	98	99
2	94	95	94
1	83	83	83
0	57	55	58
<hr/>			
N	269	106	163
Mean	0.6766	0.6887	0.6687
S.D.	0.9502	0.9252	0.9660

TABLE 22

Percentile Norms for Reaction Time
(Mean Response Time in Secs.)

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
55	--	--	99	28	94	95	93
54	99	--	99	27	93	95	92
53	99	--	99	26	93	94	92
52	99	--	99	25	92	92	91
51	99	--	99	24	90	91	89
50	99	--	99	23	88	91	87
49	99	--	99	22	84	88	82
48	99	99	99	21	83	87	80
47	99	99	99	20	81	83	80
46	99	99	99	19	79	79	79
45	99	99	99	18	76	78	74
44	99	99	99	17	74	76	72
43	99	99	99	16	70	73	69
42	99	98	99	15	66	70	64
41	99	98	99	14	61	65	59
40	99	98	99	13	56	59	53
39	99	98	99	12	51	51	50
38	99	98	99	11	42	43	42
37	99	98	99	10	38	41	37
36	99	98	99	9	30	34	28
35	98	98	98	8	27	29	25
34	98	98	97	7	20	23	18
33	98	98	97	6	13	17	10
32	97	97	97	5	4	4	4
31	96	96	96	4	1	-	2
30	95	95	95	3	-	-	-
29	94	95	93	2	-	-	-

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	14.3271		
S.D.	7.9849		

TABLE 23

Percentile Norms for Abstract

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
17	--	--	--
16	--	--	--
15	--	--	--
14	--	99	--
13	99	99	--
12	99	99	99
11	99	99	99
10	99	99	98
9	99	99	98
8	98	98	97
7	97	98	96
6	96	95	96
5	96	95	96
4	95	94	96
3	94	91	95
2	90	87	93
1	86	81	89
0	82	77	85

N	269	106	163
Mean	0.7063	0.8679	0.6012
S.D.	2.0566	2.1504	1.9863

TABLE 24

Percentile Norms for Reaction Time

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
42	99	99	99	20	80	80	80
41	98	98	98	19	78	80	77
40	96	97	96	18	76	77	75
39	96	97	95	17	73	76	71
38	96	97	94	16	71	73	69
37	95	96	94	15	68	69	67
36	95	96	94	14	64	65	63
35	94	95	93	13	61	61	61
34	93	93	93	12	59	57	59
33	92	92	92	11	56	54	57
32	91	91	91	10	52	51	53
31	89	90	88	9	49	47	50
30	88	90	88	8	44	42	45
29	88	90	88	7	41	41	40
28	88	90	88	6	36	37	35
27	88	89	88	5	33	32	33
26	87	89	88	4	29	28	30
25	85	86	84	3	28	26	28
24	84	86	83	2	24	23	26
23	83	85	82	1	20	21	20
22	82	84	81	0	14	15	13

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	12.5502	12.2736	12.7301
S.D.	11.4308	10.9953	11.7018

TABLE 25

Percentile Norms for Location

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
86-87	--	--	--	40-41	93	91	94
84-85	--	--	--	38-39	92	91	93
82-83	--	--	--	36-37	91	91	92
80-81	--	--	--	34-35	91	90	92
78-79	--	--	--	32-33	87	85	88
76-77	--	--	--	30-31	84	83	85
74-75	--	--	--	28-29	79	77	80
72-73	--	--	--	26-27	77	75	78
70-71	--	--	--	24-25	72	71	72
68-69	--	--	--	22-23	67	65	67
66-67	--	99	--	20-21	61	57	63
64-65	99	99	--	18-19	56	52	59
62-63	99	98	--	16-17	49	46	50
60-61	99	98	99	14-15	42	39	45
58-59	99	98	99	12-13	38	35	39
56-57	99	98	99	10-11	31	29	33
54-55	99	98	99	8-9	26	25	28
52-53	99	98	99	6-7	18	18	18
50-51	98	97	99	4-5	11	9	12
48-49	97	97	97	2-3	6	5	7
46-47	96	94	97	0-1	2	1	2
44-45	95	92	96				

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	19.5836	20.5943	18.9264
S.D.	12.7838	13.4689	12.2733

TABLE 26

Percentile Norms for Balance

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
25	--	99	--
24	99	--	--
23	99	--	--
22	99	--	--
21	99	--	--
20	99	--	--
19	99	--	--
18	99	--	--
17	99	--	--
16	99	99	--
15	99	--	--
14	99	--	--
13	99	--	--
12	99	--	--
11	99	--	--
10	99	--	--
9	99	--	--
8	99	--	99
7	99	--	98
6	99	--	98
5	98	--	97
4	97	--	95
3	96	99	94
2	93	96	91
1	88	91	87
0	68	69	68
N	269	106	163
Mean	0.7063	0.4623	0.2650
S.D.	2.0942	0.8487	2.5895

TABLE 27

Percentile Norms for Form Appropriateness

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
74	99	75	--	37	72	77	69
73	99	--	--	36	69	73	67
72	99	--	--	35	64	70	61
71	99	--	--	34	59	63	57
70	99	--	--	33	55	59	52
69	99	--	--	32	50	55	47
68	99	--	--	31	45	51	42
67	99	--	--	30	40	43	37
66	99	--	--	29	36	41	34
65	99	--	--	28	33	37	31
64	99	--	--	27	29	31	28
63	99	--	--	26	26	28	25
62	99	--	--	25	21	20	23
61	99	--	--	24	20	18	22
60	99	--	--	23	17	15	18
59	99	--	--	22	16	14	17
58	99	--	--	21	13	11	15
57	99	--	99	20	12	10	13
56	99	--	98	19	9	6	11
55	99	--	98	18	8	4	10
54	98	--	97	17	7	3	9
53	98	--	97	16	6	3	7
52	98	--	97	15	6	3	7
51	98	--	97	14	5	3	6
50	98	99	97	13	5	3	6
49	98	98	97	12	4	2	6
48	98	98	97	11	4	2	5
47	97	98	96	10	3	2	4
46	96	98	94	9	3	2	4
45	95	98	93	8	3	2	4
44	91	96	88	7	3	2	3
43	90	96	87	6	3	2	3
42	87	91	85	5	2	2	2
41	84	89	81	4	2	2	2
40	81	87	77	3	1	1	2
39	78	85	73	2	1	1	2
38	77	83	72	1	1	1	2
				0	1	1	2
N	269	106	163				
Mean	31.9071	31.4434	32.2086				
S.D.	10.2958	9.2196	10.9284				

TABLE 28

Percentile Norms for Color

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
81	99	99	--	40	99	97	99
80	99	99	--	39	99	97	99
79	99	99	--	38	99	97	99
78	99	99	--	37	99	97	99
77	99	99	--	36	99	97	99
76	99	99	--	35	98	97	99
75	99	99	--	34	97	97	97
74	99	99	--	33	97	97	97
73	99	99	--	32	96	96	96
72	99	99	--	31	96	96	96
71	99	99	--	30	95	94	96
70	99	99	--	29	94	92	95
69	99	99	--	28	93	91	94
68	99	--	--	27	93	91	94
67	99	--	--	26	93	91	94
66	99	--	--	25	92	90	93
65	99	--	--	24	91	90	92
64	99	--	--	23	91	90	91
63	99	--	--	22	90	88	91
62	99	--	--	21	87	86	88
61	99	--	--	20	84	83	85
60	99	99	--	19	84	83	85
59	99	--	--	18	83	82	83
58	99	--	--	17	81	82	81
57	99	--	--	16	79	80	79
56	99	--	--	15	77	76	77
55	99	--	--	14	74	72	75
54	99	--	--	13	73	71	74
53	99	98	--	12	70	68	71
52	99	97	--	11	67	65	69
51	99	97	--	10	61	57	64
50	99	97	--	9	57	51	60
49	99	97	--	8	54	47	58
48	99	97	99	7	49	42	53
47	99	97	99	6	45	40	49
46	99	97	99	5	39	36	42
45	99	97	99	4	35	27	40
44	99	97	99	3	29	25	31
43	99	97	99	2	21	17	24
42	99	97	99	1	13	11	13
41	99	97	99	0	8	7	9

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	10.5390	11.7547	9.7485
S.D.	10.6525	12.3722	9.2811

TABLE 29

Percentile Norms for Form Definiteness

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Dangerous
144-146	99	--	135 & 142	69-71	40	35	43
141-143	99	--	--	66-68	34	28	38
138-140	99	--	--	63-65	28	23	31
135-137	99	--	--	60-62	25	22	26
132-134	99	--	--	57-59	20	18	21
129-131	99	--	--	54-56	17	14	19
126-128	99	--	--	51-53	14	9	18
123-125	99	--	--	48-50	13	8	17
120-122	99	--	99	45-47	10	7	12
117-119	99	--	98	42-44	7	7	8
114-116	99	--	98	39-41	7	6	7
111-113	99	--	98	36-38	6	4	7
108-110	98	99	97	33-35	3	4	3
105-107	96	96	96	30-32	2	2	2
102-104	94	91	95	27-29	1	1	2
99-101	92	90	93	24-26	1	1	1
96-98	89	88	90	21-23	1	1	1
93-95	86	85	86	18-20	1	1	1
90-92	80	77	81	15-17	1	1	1
87-89	76	75	77	12-14	1	--	1
84-86	70	67	71	9-11	1	--	1
81-83	61	58	62	6-8	1	--	1
78-80	54	50	56	3-5	--	--	--
75-77	51	47	53	0-2	--	--	--
72-74	46	42	48				

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	75.6357	77.2736	74.5705
S.D.	20.5235	19.0345	21.3691

TABLE 30

Percentile Norms for Shading

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
55	--	--	99	26	99	--	99
54	99	--	99	25	99	--	99
53	99	--	99	24	99	--	99
52	99	--	99	23	99	--	99
51	99	--	99	22	99	--	98
50	99	--	99	21	98	--	97
49	99	--	99	20	97	99	96
48	99	--	99	19	96	98	94
47	99	--	99	18	96	98	94
46	99	--	99	17	96	98	94
45	99	--	99	16	96	97	94
44	99	--	99	15	95	97	93
43	99	--	99	14	93	95	92
42	99	--	99	13	90	93	88
41	99	--	99	12	87	91	85
40	99	--	99	11	84	86	82
39	99	--	99	10	80	82	79
38	99	--	99	9	77	76	78
37	99	--	99	8	71	66	74
36	99	--	99	7	68	64	71
35	99	--	99	6	62	60	63
34	99	--	99	5	57	54	59
33	99	--	99	4	50	42	55
32	99	--	99	3	41	33	46
31	99	--	99	2	34	25	39
30	99	--	99	1	22	12	29
29	99	--	99	0	15	8	19
28	99	--	99				
			<u>MSU</u>	<u>Dangerous</u>	<u>Not Dangerous</u>		
N			269	106	163		
Mean			6.1747	6.3113	6.0859		
S.D.			6.4031	4.9323	7.1987		

TABLE 31

Percentile Norms for Movement

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
84-85	--	--	99	40-41	93	91	94
82-83	99	--	99	38-39	91	86	94
80-81	99	--	99	36-37	89	85	91
78-79	99	--	99	34-35	88	83	91
76-77	99	--	99	32-33	86	82	89
74-75	99	--	99	30-31	83	77	88
72-73	99	--	99	28-29	81	75	85
70-71	99	--	99	26-27	79	75	82
68-69	99	--	99	24-25	76	71	80
66-67	99	--	99	22-23	71	67	73
64-65	99	--	99	20-21	66	63	67
62-63	99	--	99	18-19	63	62	64
60-61	99	--	99	16-17	58	53	61
58-59	99	--	99	14-15	54	46	59
56-57	99	--	99	12-13	49	39	56
54-55	99	99	99	10-11	43	34	49
52-53	99	98	99	8- 9	36	29	41
50-51	99	98	99	6- 7	30	23	34
49-49	98	96	99	4- 5	26	20	31
46-47	97	95	99	2- 3	18	11	23
44-45	97	94	99	0- 1	10	8	11
42-43	96	91	98				
			<u>MSU</u>	<u>Dangerous</u>	<u>Not Dangerous</u>		
N			269	106	163		
Mean			17.0334	19.3396	15.5337		
S.D.			14.1294	14.3612	13.7708		

TABLE 32

Percentile Norms for Hostility

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
56	--	99	--
55	99	99	--
54	99	99	--
53	99	99	--
52	99	99	--
51	99	99	--
50	99	99	--
49	99	99	--
48	99	99	--
47	99	99	--
46	99	99	--
45	99	99	--
44	99	99	--
43	99	99	--
42	99	99	--
41	99	99	--
40	99	99	--
39	99	99	--
38	99	99	--
37	99	99	--
36	99	99	--
35	99	99	--
34	99	99	--
33	99	99	--
32	99	99	--
31	99	99	--
30	99	98	--
29	99	98	--
28	99	97	--
27	99	97	99
26	99	97	99
25	98	96	99
24	98	95	99
23	97	94	99
22	97	94	99
21	97	94	99
20	96	93	97
19	96	92	97
18	96	92	97
17	95	91	97
16	94	91	96
15	93	90	94
14	91	87	93
13	89	83	93
12	87	81	91
11	85	77	90

TABLE 32 (Continued)

	MSU	Dangerous	Not Dangerous
10	83	75	88
9	79	69	86
8	74	61	81
7	68	57	75
6	64	52	72
5	59	49	66
4	51	43	55
3	42	35	47
2	36	27	41
1	25	19	28
0	16	9	20

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	6.1041	7.8491	4.9693
S.D.	6.6094	8.1424	5.0706

TABLE 33

Percentile Norms for Barrier

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
21	--	--	--
20	--	--	--
19	--	--	--
18	--	--	--
17	--	--	--
16	--	--	--
15	--	--	--
14	--	--	--
13	--	--	--
12	99	--	99
11	99	--	99
10	99	99	98
9	97	98	96
8	96	97	94
7	91	89	92
6	88	87	89
5	83	76	87
4	74	68	79
3	66	59	70
2	56	53	58
1	38	38	39
0	22	22	21

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	2.9182	3.1321	2.7791
S.D.	2.7540	2.7884	2.7224

TABLE 34

Percentile Norms for Anxiety

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
63	--	--	99	30	98	95	99
62	99	--	99	29	98	95	99
61	99	--	99	28	98	95	99
60	99	--	99	27	98	95	99
59	99	--	99	26	97	95	99
58	99	99	99	25	96	94	97
57	--	--	99	24	96	94	97
56	--	--	99	23	96	94	97
55	--	--	99	22	96	94	97
54	--	--	99	21	95	93	96
53	--	--	99	20	94	91	96
52	--	--	99	19	92	89	94
51	--	--	99	18	90	87	93
50	--	--	99	17	89	87	91
49	--	--	99	16	82	84	88
48	--	--	99	15	86	82	88
47	--	--	99	14	83	77	87
46	--	--	99	13	81	77	83
45	--	--	99	12	78	70	83
44	--	--	99	11	75	67	80
43	--	--	99	10	72	63	77
42	--	--	99	9	67	58	72
41	--	--	99	8	64	56	70
40	--	--	99	7	59	49	66
39	99	--	99	6	53	43	59
38	99	--	99	5	48	38	54
37	99	99	99	4	37	28	43
36	99	98	99	3	30	21	36
35	99	98	99	2	23	17	26
34	99	98	99	1	17	14	19
33	99	98	99	0	13	11	13
32	99	97	99				
31	98	96	99				

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	8.2156	9.7642	7.2086
S.D.	8.3009	8.9901	7.6539

TABLE 35

Percentile Norms for Anatomy

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
74	---	---	99
73	99	---	99
72	---	---	99
71	---	---	99
70	---	---	99
69	---	---	99
68	---	---	99
67	---	---	99
66	---	---	99
65	---	---	99
64	---	---	99
63	---	---	99
62	---	---	99
61	---	---	99
60	---	---	99
59	---	---	99
58	---	---	99
57	---	---	99
56	---	---	99
55	---	---	99
54	---	---	99
53	---	---	99
52	---	---	99
51	---	---	99
50	---	---	99
49	---	---	99
48	99	---	99
47	99	---	99
46	99	99	99
45	---	99	99
44	---	99	99
43	---	99	99
42	---	99	99
41	---	99	99
40	---	99	99
39	---	99	99
38	---	99	99
37	---	99	99
36	---	99	99
35	---	99	99
34	99	99	99
33	99	99	98
32	99	99	98
31	98	99	97
30	98	99	97
29	98	99	97
28	98	99	97
27	98	99	97
	110		

TABLE 35 (Continued)

	MSU	Dangerous	Not Dangerous
26	98	99	97
25	98	99	96
24	97	99	96
23	97	99	96
22	97	99	96
21	97	99	96
20	97	99	96
19	96	99	96
18	96	99	94
17	96	99	94
16	95	99	94
15	94	97	92
14	93	96	91
13	93	96	90
12	91	94	89
11	91	93	89
10	89	91	88
9	88	89	87
8	87	89	86
7	85	87	83
6	83	85	81
5	78	78	78
4	73	73	73
3	61	64	59
2	52	56	50
1	38	37	39
0	24	23	26
	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	4.5279	3.8868	4.9448
S.D.	7.7106	5.7729	8.7180

TABLE 36

Percentile Norms for Pathognomic Verbalization

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
195-199	--	--	--	35-39	95	92	96
190-194	--	--	--	30-34	93	91	95
185-189	--	--	--	29	91	89	92
180-184	--	--	--	28	90	88	92
175-179	--	--	--	27	90	88	91
170-174	--	--	--	26	89	87	91
165-169	--	--	--	25	89	86	91
160-164	--	--	--	24	87	86	88
155-159	--	--	--	23	87	86	87
150-154	--	--	--	22	86	88	86
145-149	--	--	--	21	85	84	85
140-144	--	--	--	20	83	83	83
135-139	--	--	--	19	82	81	83
130-134	--	--	--	18	81	80	81
125-129	--	--	--	17	80	80	80
120-124	--	--	--	16	78	75	80
115-119	--	--	--	15	76	73	79
110-114	--	--	--	14	74	72	76
105-109	--	99	--	13	73	68	76
100-104	99	99	--	12	72	66	75
95-99	99	99	--	11	71	66	74
90-94	99	99	--	10	70	63	74
85-89	99	99	--	9	66	61	69
80-84	99	99	--	8	63	54	68
75-79	99	99	--	7	58	50	64
70-74	99	99	--	6	55	48	60
65-69	99	98	99	5	51	41	58
60-64	99	97	99	4	45	36	51
55-59	99	97	99	3	40	32	45
50-54	97	96	98	2	31	25	35
45-49	97	95	98	1	28	21	33
40-44	97	95	97	0	25	18	29

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	10.5502	12.6792	9.1656
S.D.	14.4254	16.8285	12.4251

TABLE 37

Percentile Norms for Sex

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
21	--	--	99
20	99	--	99
19	99	--	99
18	99	--	99
17	99	--	99
16	99	--	99
15	99	--	99
14	99	--	99
13	99	--	99
12	99	--	99
11	99	--	99
10	99	--	99
9	99	--	99
8	99	99	99
7	99	98	99
6	92	96	97
5	94	92	96
4	93	91	94
3	89	88	90
2	86	85	87
1	75	72	77
0	62	56	66

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	1.1041	1.2264	1.0245
S.D.	2.1738	1.9633	2.2968

TABLE 38

Percentile Norms for Human

Raw Score	Behavioral Problem Mental Patients			Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous		MSU	Dangerous	Not Dangerous
52	--	--	99				
51	99	--	99	25	86	84	82
50	99	--	99	24	82	82	82
49	99	--	99	23	80	79	80
48	99	--	99	22	78	78	79
47	99	--	99	21	76	75	77
46	99	--	99	20	73	72	74
45	99	--	99	19	68	68	69
44	99	99	99	18	66	65	67
43	99	99	99	17	65	62	67
42	99	99	99	16	62	59	64
41	99	99	99	15	59	56	62
40	99	99	99	14	56	54	58
39	99	98	99	13	54	54	53
38	98	97	98	12	49	51	48
37	97	97	97	11	45	46	43
36	97	97	97	10	40	41	40
35	97	97	96	9	35	34	35
34	96	97	96	8	32	31	33
33	95	96	94	7	28	27	28
32	94	94	93	6	24	25	24
31	93	92	93	5	20	18	22
30	92	91	93	4	17	14	18
29	91	90	93	3	12	13	12
28	90	88	92	2	11	10	11
27	88	86	89	1	7	7	7
26	87	85	88	0	4	3	5

	MSU	Dangerous	Not Dangerous
N.	269	106	163
Mean	14.6283	14.9057	14.4479
S.D.	10.1008	10.1131	10.0886

TABLE 39
Percentile Norms for Penetration

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
36	99	--	--
35	99	--	--
34	99	--	--
33	99	--	--
32	99	--	99
31	99	--	99
30	99	--	99
29	99	--	99
28	99	--	99
27	99	--	99
26	99	--	99
25	99	--	99
24	99	--	99
23	99	--	99
22	99	--	99
21	99	--	98
20	99	--	97
19	99	--	97
18	98	--	97
17	98	--	97
16	98	99	96
15	97	99	96
14	97	99	96
13	96	99	94
12	95	98	93
11	93	98	90
10	93	97	89
9	90	93	88
8	87	92	84
7	83	90	78
6	79	84	76
5	73	76	71
4	66	64	67
3	55	54	56
2	42	40	44
1	31	27	34
0	16	10	20

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	4.2156	3.7830	4.4969
S.D.	4.5698	3.0561	5.3093

TABLE 40

Percentile Norms for Animal

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
70-71	--	--	99
68-69	99	--	99
66-67	99	--	99
64-65	99	--	99
62-63	99	--	99
60-61	99	--	99
58-59	99	--	99
56-57	99	--	99
54-45	99	--	99
52-53	99	--	99
50-51	99	--	99
48-49	99	--	99
46-47	99	99	98
44-45	99	99	97
42-43	99	99	97
40-41	99	99	97
38-39	98	99	97
36-37	97	97	97
34-35	95	94	96
32-33	92	92	92
30-31	90	91	88
28-29	86	85	87
26-27	81	78	82
24-25	76	73	78
22-23	70	66	73
20-21	64	61	66
18-19	54	54	55
16-17	46	45	46
14-15	38	36	39
12-13	32	31	33
10-11	27	26	28
8-9	22	17	26
6-7	16	13	18
4-5	13	10	15
2-3	9	7	10
0-1	5	4	5

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	18.5427	18.9906	18.2515
S.D.	10.7826	9.8675	11.3285

TABLE 41

Percentile Norms for Integration

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
25	--	--	--
24	--	--	--
23	--	--	--
22	--	--	--
21	--	--	--
20	--	--	99
19	99	--	99
18	99	--	97
17	99	--	97
16	98	99	97
15	98	98	97
14	97	97	97
13	95	94	95
12	94	93	94
11	93	92	93
10	90	89	91
9	88	86	89
8	83	83	83
7	78	79	77
6	71	73	70
5	61	64	59
4	53	55	52
3	45	43	46
2	35	31	38
1	27	25	28
0	13	10	15

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	4.8439	4.8679	4.8282
S.D.	4.1877	4.0143	4.2967

TABLE 42

Percentile Norms for Popular

Raw Score	Behavioral Problem Mental Patients		
	MSU	Dangerous	Not Dangerous
17	--	--	--
16	--	--	--
15	--	--	--
14	--	--	99
13	99	--	99
12	99	--	98
11	97	99	96
10	94	98	91
9	89	93	87
8	83	87	80
7	74	78	72
6	66	72	62
5	54	57	52
4	47	51	44
3	32	32	33
2	25	23	26
1	16	14	17
0	5	4	6

	MSU	Dangerous	Not Dangerous
N	269	106	163
Mean	5.1859	4.9057	5.3681
S.D.	3.2302	2.8600	3.4374

TABLE 43

Marital Status

	Prison Inmates (n=39)	TSH (n=50)
Never married	16	39
Separated, widowed, divorced	15	11
Married, common law	8	0

TABLE 44

Previous Hospitalization

	Prison Inmates (n=55)	TSH (n=49)
Yes, this hospital	0	27
Yes, other hospital	1	5
Yes, this and other hospital	0	7
Never hospitalized	54	10

TABLE 45

Occupational Category

	Prison Inmates (n=55)	TSH (n=51)
Skilled	29	2
Unskilled	26	49

TABLE 46

Father Living

	Prison Inmates (n=55)	TSH (n=51)
Yes	18	21
No	21	28
Unknown	16	2

Education Completed By Father

Grades	Prison Inmates (n=42)	TSH (n=49)
0-3	1	2
4-6	2	4
7-9	8	7
10-12	12	12
Some College	5	5
College Graduate	4	9
Unknown	10	10

TABLE 48

Mean Number of Years Lived With Father During Developmental Years

	Prison Inmates (n=42)	TSH (n=49)
0-12 years	9.6	10.1
13-17 years	3.3	3.7

TABLE 49

Mother Living*

	Prison Inmates (n=55)	TSH (n=51)
Yes	23	14
No	19	35
Unknown	13	2

*P < .05

TABLE 50

Education Completed By Mother

	Prison Inmates (n=55)	TSH (n=51)
0-3	2	1
4-6	3	3
7-9	3	6
10-12	23	16
Some College	1	5
College Graduate	2	7
Unknown	21	13

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TABLE 51

Means Number of Years Lived With Mother During Developmental Years

	Prison Inmates (n=42)	TSH (n=49)
0-12 years	11.6	11.5
13-17 years	4.0	4.2

TABLE 52

Mean Number of Siblings

	Prison Inmates (n=42)	TSH (n=49)
Mean Number	3.9	2.9

TABLE 53

Other Family Members Admitted To a Psychiatric Hospital

	Prison Inmates (n=42)	TSH (n=51)
Father	-	1
Mother	2	3
Siblings	4	9
Other relative	-	6
Male guardian	-	-
Female guardian	-	1
No record of any family member	36	31

TABLE 54

Parents Divorced

	Prison Inmates (n=55)	TSH (n=51)
Yes	16	14
No	26	35
Unknown	13	2

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TABLE 55

Parents Having Alcohol/Drug Problems During
Developmental Year (0-12 Years)

	Prison Inmates	TSH
Yes	11	11
No	30	34
Unknown	14	6

TABLE 56

Parents Having Alcohol/Drug Problems During
Developmental Year (13-17 Years)

	Prison Inmates (n=55)	TSH (n=51)
Yes	9	9
No	32	35
Unknown	14	6

TABLE 57

Parents Buying A Home During Developmental Years (0-12 Years)*

	Prison Inmates (n=55)	TSH (n=51)
Yes	27	36
No	14	9
Unknown	14	6

*P < .05

TABLE 58

Parents Buying A Home During Developmental Years (13-17 Years)

	Prison Inmates (n=55)	TSH (n=51)
Yes	28	38
No	13	8
Unknown	14	5

TABLE 59

Steady Source Of Income To Family During
Developmental Year (0-12 Years)

	Prison Inmates (n=55)	TSH (n=51)
Yes	39	41
No	3	5
Unknown	13	5

TABLE 60

Steady Source Of Income To Family During
Developmental Year (13-17)

	Prison Inmates (n=55)	TSH (n=51)
Yes	39	40
No	2	5
Unknown	14	6

TABLE 61

Rate Principal Wage Earner Changed Occupations During
Developmental Year (0-12 Years)

	Prison Inmates (n=55)	TSH (n=51)
Less than once a year	36	37
More than once a year	3	3
Unknown	16	11

TABLE 62

Rate Principal Wage Earner Changed Occupations During
Developmental Years (13-17 Years)

	Prison Inmates (n=55)	TSH (n=51)
Less than once a year	35	37
More than once a year	3	2
Unknown	17	12

TABLE 63

Occupations That Kept Principal Wage Earner Away From Home Three Days/Nights A Week During Developmental Years (0-12 Years)

	Prison Inmates (n=55)	TSH (n=51)
Yes	12	10
No	25	32
Unknown	18	10

TABLE 64

Occupations That Kept Principal Wage Earner Away From Home Three Days/Nights A Week During Developmental Years (13-17 Years)

	Prison Inmates (n=55)	TSH (n=51)
Yes	11	8
No	26	33
Unknown	18	10

TABLE 65

Family Mobility During Developmental Years (0-18 Years)

	Prison Inmates (n=55)		TSH (n=51)	
	\bar{X}	S.D.	\bar{X}	S.D.
Mean Number of Times Family Moved*	4.3	3.3	1.7	2.8
Mean Number of Times Family Moved to other Cities*	2.2	3.2	0.6	1.1

*p < .01

TABLE 66

Referred For Treatment For Emotional Problems During Childhood Years, 0-12

	Prison Inmates (n=55)	TSH (n=51)
Yes	-	5
No	41	37
Unknown	14	13

TABLE 67

Referred For Treatment For Emotional Problems During Adolescent Years, 13-17

	Prison Inmates (n=55)	TSH (n=51)
Yes	4	11
No	37	34
Unknown	14	10

TABLE 68

Mean Age Began Dating

	Prison Inmates (n=55)	TSH (n=51)
Mean Age in years	13.8	15.3

TABLE 69

Grades In Elementary School

	Prison Inmates (n=55)	TSH (n=51)
Below average (D,F)	4	6
Average (C)	21	19
Above average (B,A)	17	24
Unknown	13	2

TABLE 70

Grades In High School

	Prison Inmates (n=55)	TSH (n=51)
Below average (D, F)	7	8
Average (C)	23	18
Above average (B, A)	8	19
Unknown	17	4

TABLE 71

Frequency Administered Physical Punishment for Bad Behavior As a Child, 0-12 Years

	Prison Inmates (n=55)	TSH (n=51)
Never	2	6
Rarely	17	22
Frequently	22	13
Unknown	14	10

TABLE 72

Frequency Administered Physical Punishment As An Adolescent, 13-17 Years

	Prison Inmates (n=55)	TSH (n=51)
Never	19	21
Rarely	17	17
Frequently	5	4
Unknown	14	9

TABLE 73

Problem With Drugs As An Adolescent, 13-17 Years

	Prison Inmates (n=55)	TSH (n=51)
Yes	4	10
No	38	37
Unknown	13	8

TABLE 74

Problem With Alcohol As an Adolescent, 13-17 Years

	Prison Inmates (n=55)	TSH (n=51)
Yes	4	10
No	38	35
Unknown	13	10

TABLE 75

Threatened To Commit Suicide As A Child, 0-12 Years

	Prison Inmates (n=55)	TSH (n=51)
Yes	1	2
No	41	38
Unknown	13	11

TABLE 76

Threatened To Commit Suicide As An Adolescent, 13-17 Years

	Prison Inmates (n=55)	TSH (n=51)
Yes	3	6
No	39	36
Unknown	13	9

TABLE 77

Attempted To Commit Suicide As A Child, 0-12 Years

	Prison Inmates (n=55)	TSH (n=51)
Yes	1	1
No	41	41
Unknown	13	9

TABLE 78

Attempted To Commit Suicide As An Adolescent, 13-17 Years

	Prison Inmates (n=55)	TSH (n=51)
Yes	2	1
No	40	42
Unknown	13	9

TABLE 79
Problem With Drugs As An Adult

	Prison Inmates (n=55)	TSH (n=51)
Yes	9	11
No	33	37
Unknown	13	3

TABLE 80
Problem With Alcohol As An Adult

	Prison Inmates (n=55)	TSH (n=51)
Yes	10	13
No	32	33
Unknown	13	5

TABLE 81
Frequency Involved In Fights As An Adult

	Prison Inmates (n=55)	TSH (n=51)
Never	17	21
Rarely	21	19
Frequently	3	6
Unknown	14	5

TABLE 82
Type Of Friends Associates With As An Adult*

	Prison Inmates (n=55)	TSH (n=51)
Desirable	22	32
Undesirable	17	7
Unknown	16	2

* $P < .05$

TABLE 83
Frequency Dates As An Adult*

	Prison Inmates (n=55)	TSH (n=51)
More than once a week	28	18
Less than once a week	10	24
Unknown	17	9

* $P < .05$

TABLE 84
Attends Church Regularly As An Adult

	Prison Inmates (n=55)	TSH (n=51)
Yes	10	19
No	32	27
Unknown	13	5

TABLE 85
Served In Military

	Prison Inmates (n=55)	TSH (n=51)
Yes	18	16
No	24	32
Unknown	13	3

TABLE 86
Served In Active Duty In A Combat Zone

	Prison Inmates (n=55)	TSH (n=51)
Yes	9	2
No	9	14
Not applicable	22	30
Unknown	14	5

TABLE 87

Mean Number Of Marriages

	Prison Inmates (n=55)	TSH (n=51)
Mean	0.95	0.29
S.D.	1.16	0.53

TABLE 88

Mean Number Of Children

	Prison Inmates (n=55)	TSH (n=51)
Mean	0.81	0.31
S.D.	0.93	0.77

TABLE 89

Active Role In Rearing Of His Children

	Prison Inmates (n=55)	TSH (n=51)
Yes	13	3
No	8	4
Not applicable	21	40
Unknown	13	4

TABLE 90

Frequency Argues With Spouse

	Prison Inmates (n=55)	TSH (n=51)
Less than once a week	16	4
More than once a week	3	3
Almost daily	2	2
Not applicable	20	38
Unknown	13	4

TABLE 91

Physically Assaults Spouse During Arguments

	Prison Inmates (n=55)	TSH (n=51)
Yes	7	3
No	19	6
Not applicable	16	36
Unknown	13	6

TABLE 92

Frequency Disciplines His Children With Physical Punishment For Bad Behavior

	Prison Inmates (n=55)	TSH (n=51)
Never	13	7
Rarely	6	-
Frequently	-	1
Not applicable	23	40
Unknown	13	3

TABLE 93

Children Afraid

	Prison Inmates (n=55)	TSH (n=51)
Yes	16	5
No	4	1
Unknown	13	2
Not applicable	22	43

TABLE 94

Other People Afraid

	Prison Inmates (n=55)	TSH (n=51)
Yes	6	16
No	30	23
Unknown	19	12

TABLE 95

Threatened Suicide As An Adult

	Prison Inmates (n=55)	TSH (n=51)
Yes	4	12
No	38	32
Unknown	13	7

TABLE 96

Attempted To Commit Suicide As An Adult

	Prison Inmates (n=55)	TSH (n=51)
Yes	2	6
No	40	37
Unknown	13	8

TABLE 97

Left Parental Home

	Prison Inmates (n=55)	TSH (n=51)
Yes	35	25
No	7	23
Unknown	13	3

TABLE 98

Mean Number of Jobs Held

	Prison Inmates (n=55)	TSH (n=51)
Mean	7.29	4.65

TABLE 99

Present Charge According To Uniform Crime Code Report

Present Charge	Prison Inmates (n=42)
Murder & non-negligent manslaughter	2
Manslaughter by negligence	1
Forcible rape	3
Robbery	9
Assault (aggravated)	-
Burglary	7
Larceny - theft	-
Motor vehicle theft	1
Other assault (not aggravated)	-
Arson	1
Forgery	1
Embezzlement	1
Stolen property	3
Weapons, possessing, etc.	-
Sex offenses, except rape and prostitution	1
Narcotic drug laws	7
Driving under the influence	1
Other offense	4

TABLE 100

Weapon Used Related To Present Criminal Charge

	Prison Inmates (n=42)
Gun	5
Knife	2
Hands	1
Other	2
No weapon used	32

TABLE 101

Alleged Crime Committed Under The Influence of Alcohol

	Prison Inmates (n=42)
Yes	10
No	32
Unknown	-

TABLE 102

Alleged Crime Committed Under The Influence of Drugs

	Prison Inmates (n=42)
Yes	9
No	33
Unknown	-

TABLE 103

Alleged Crime Committed In Order To Obtain Money For Alcohol

	Prison Inmates (n=42)
Yes	-
No	42
Unknown	-

TABLE 104

Alleged Crime Committed In Order To Obtain Money For Drugs

	Prison Inmates (n=42)
Yes	2
No	40
Unknown	-

TABLE 105

Location of Alleged Crime

	Prison Inmates (n=42)
Home of patient	1
Place of work	2
Street or public place	27
Home of victim	6
Other	6
Unknown	-

TABLE 106

Number Of Victims Involved In Present Criminal Indictment

	Prison Inmates (n=42)
No victim involved	21
One victim involved	15
Two victims involved	3
Three victims involved	2
Seven victims involved	1
Unknown	-

TABLE 107

First Victim Is/Was Known To The Defendant

	Prison Inmates (n=42)
Yes	5
No	15
Not applicable	22

TABLE 108

First Victim Is/Was A Family Member*

	Prison Inmates (n=42)
Wife	-
Parent	-
Cousin	-
Other relative	1
Not applicable	41

*p < .02

TABLE 109

Extent Of Personal Physical Injury To First Victim
In Present Criminal Indictment

	Prison Inmates (n=42)
No physical injury	14
Victim hospitalized, treated, released	2
Victim hospitalized, serious condition	-
Physical injury resulted in victim's death	3
Not applicable	23

TABLE 110

Mean Number Of Previous Arrests

	Prison Inmates (n=42)	TSH (n=51)
Mean	5.10	1.15
S.D.	5.10	1.37

TABLE 111

Estimated Length Of Time Spent In Jails/Prison

	Prison Inmates (n=42)	TSH (n=51)
Mean in years	2.5	.72
S.D.	4.53	1.68

TABLE 112

Living Situation During Six Month Period Before Commitment Or
Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Living alone	8	3
Living in group quarters	2	2
Living with spouse	8	1
Living with friends	4	6
Incarcerated	9	3
Living with relatives	6	5
Living with parental family	5	25
Other	-	2
Unknown	13	4

TABLE 113

Children Living With Respondent During The Six Month Period Before
Commitment Or Incarceration

	Prison Inmates (n=42)	TSH (n=47)
Entire period	3	1
Part of period	4	3
None of the period	12	5
Not applicable	23	38

TABLE 114

Seen Children Within Five Weeks Before Alleged Offense Or
Commitment

	Prison Inmates (n=42)	TSH (n=47)
Yes	11	5
No	9	5
Not applicable	22	37

TABLE 115

If Not Married, Having Steady Boy Or Girl Friend During Six Month
Period Before Commitment Or Incarceration

	Prison Inmates (n=42)	TSH (n=47)
Yes	11	9
No	9	21
Not applicable	22	17

TABLE 116

Employed During Six Month Period Before Commitment
Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Yes	33	24
No	8	23
Not applicable	1	3
Unknown	13	1

TABLE 117

Frequency Absent From Work During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Rarely	29	19
Frequently	3	3
Not applicable	23	29

TABLE 118

Stayed Away From Home Overnight Without Informing Members of Household During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Yes	11	14
No	19	19
Not applicable	12	12
Unknown	13	6

TABLE 119

Attended Church Regularly During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Yes	5	14
No	32	33
Unknown	18	4

TABLE 120

Frequency Involved In Fights During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Never	28	33
Rarely	6	9
Frequently	2	5
Unknown	19	4

TABLE 121

Type Of Friends Associated With During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Desirable	18	35
Undesirable	14	10
Unknown	23	6

TABLE 122

Frequency Of Alcohol Usage In Home During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Never	9	21
Rarely	15	12
Frequently	11	14
Unknown	20	4

TABLE 123

Frequency Of Alcohol Usage Out Of Home During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Never	6	15
Rarely	19	21
Frequently	10	10
Unknown	20	5

TABLE 124

Problem With Alcohol During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Yes	6	7
No	27	40
Unknown	22	4

TABLE 125

Frequency Of Drug Usage In Home During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Never	15	35
Rarely	9	5
Frequently	11	7
Unknown	20	4

TABLE 126

Frequency Of Drug Usage Out Of Home During Six Month Period Before Commitment Or Incarceration

	Prison Inmates (n=55)	TSH (n=51)
Never	17	34
Rarely	9	5
Frequently	9	8
Unknown	20	4

TABLE 127

Where Respondent Feels He Would Presently Be Better Off

	Prison Inmates (n=55)	TSH (n=51)
Hospital	6	10
Prison	1	1
Home	30	36
Unknown	18	4

TABLE 128

Ever Having Serious Head Injury Where Patient Lost Consciousness

	Prison Inmates (n=55)	TSH (n=51)
Yes	20	13
No	21	27
Unknown	14	11

TABLE 129a

Revised Beta IQ

	Prison Inmates (n=37)	TSH (N=47)
Intelligent Quotient \bar{x}	102.32	86.77
Standard Deviation	15.5	10.8

TABLE 129b

MMPI

Scales	Prison Inmates (N=34)		TSH (N=43)	
	\bar{X}	S.D.	\bar{X}	S.D.
L	51.8	9.7	55.7	10.8
F	71.2	19.3	82.3	20.7
K	50.9	10.2	52.2	12.4
HS	62.4	15.2	64.2	17.3
D	69.2	16.9	67.5	16.4
Hy	62.2	10.8	60.0	13.7
Pd	74.4	11.0	70.1	14.8
Mf	62.7	9.7	63.5	9.1
Pa	64.4	13.4	72.3	17.1
Pf	68.4	15.2	71.3	15.5
Sc	76.1	21.8	88.0	21.7
Ma	67.2	11.9	69.0	13.5
Si	58.1	11.9	56.7	9.2
0-H	53.2	12.8	58.1	11.1

TABLE 130

Buss Durkee Inventory

Scale	Prison Inmates (N=55)		TSH (N=51)	
	\bar{X}	S.D.	\bar{X}	S.D.
Verbal Hostility	5.2	4.1	5.4	3.4
Guilt	3.4	2.8	4.3	2.7
Suspicion	3.2	2.8	4.0	3.1
Resentment	2.5	2.3	3.2	2.3
Irritability	3.6	3.4	3.9	2.7
Indirect Hostility	2.7	2.6	2.6	1.9
Assault	3.7	3.1	3.7	2.7
Negativism	1.5	1.6	2.1	1.7

TABLE 131

Holtzman Inkblot Technique (HIT)

Variable	Prison Inmates (N=55)		TSH (N=51)	
	\bar{X}	S.D.	\bar{X}	S.D.
Form Definateness	66.7	19.1	71.0	24.1
Form Appropriateness	36.9	6.1	28.5	9.6
Reaction Time	16.0	10.8	15.2	10.5
Rejection	10.5	10.0	11.1	11.6
Space	1.0	1.3	1.3	2.0
Balance	0.3	0.8	0.3	0.7
Color	6.2	5.4	12.7	11.8
Shading	6.7	5.3	5.4	6.0
Movement	19.9	11.5	13.7	12.1
Integration	5.3	4.1	3.8	3.6
Human	16.8	9.5	13.6	9.1
Animal	18.7	8.1	18.6	11.4
Anatomy	2.6	2.3	3.3	4.1
Sex	0.3	0.6	1.7	7.5
Abstract	0.04	0.2	0.3	1.0
Anxiety	4.0	4.5	5.8	6.2
Hostility	4.0	3.7	4.1	3.5
Barrier	1.4	1.6	1.4	1.6
Penetration	1.8	1.9	2.8	4.4
Location	18.0	12.8	21.3	16.7
Pathognomic Verbalizations	2.0	4.4	6.7	10.6
Popular	5.6	3.1	4.5	3.5

APPENDIX A

FANTASY LIFE OF THE MENTALLY ABNORMAL OFFENDER:
A PRELIMINARY SURVEY

by

Ellis M. Craig, Ph.D.

Attached to document entitled: "Normative
Characteristics of Forensic Psychiatric Patients in Texas"

The Fantasy Life of the Mentally Abnormal
Offender: A Preliminary Survey

INTRODUCTION

The possibility of a link between antisocial behavior and the fantasy life of the individual seems quite reasonable. That such a relationship would exist for mentally abnormal offenders is especially intriguing. Although there are occasional references in the literature regarding the fantasies of this group (e.g., Adler and Shapiro, 1973; Berman, 1959), there has been little direct study of this question.

Until quite recently, "inner experiences" were not even considered "proper" subject matter for scientific investigation. This conservative attitude began changing, however, as increasing numbers of studies established reliable correlations between physiological variables and such subjective experiences as dreams and hypnotic induction. The rapidly growing field of biofeedback research is a further indication of this trend. Paivio (1971) recently summarized the results of several hundred studies demonstrating the strong influence of mental imagery in learning and memory tasks.

A major impetus to daydreaming research was provided by Jerome Singer's (1966) book, Daydreaming, which included normative studies and descriptions of various methodologies for investigating daydreaming. One of these methodologies is a self-report inventory, the Imaginal Processes Inventory (Singer and Antrobus, 1966).

The study reported in this paper involves a comparison of the responses to the Imaginal Processes Inventory (IPI) of mentally abnormal offenders, non-criminal state hospital patients, and one of Singer's normative groups. Further, two factor analyses of the mentally abnormal offender data are presented - one for the IPI alone and another for both the IPI and the Holtzman Inkblot Test (Holtzman, Thorpe, Swartz, and Herron, 1961).

Description of the IPI: The IPI is a 344 item questionnaire consisting of 28 scales. Each item has 5 response alternatives, some of which are stated in a positive and others in a negative fashion to limit the effects of response sets. These response alternatives reflect various frequencies or the extent to which a particular type of daydream is typical of the responder. Table 1 includes a listing of the 28 scales.

TABLE I
IMAGINAL PROCESSES INVENTORY SCALES

- 1 - DAYDREAMING FREQUENCY
- 2 - NIGHT DREAMING FREQUENCY
- 3 - ABSORPTION IN DAYDREAMING
- 4 - ACCEPTANCE OF DAYDREAMING
- 5 - POSITIVE REACTIONS IN DAYDREAMING
- 6 - FRIGHTENED REACTIONS TO DAYDREAMS
- 7 - VISUAL IMAGERY IN DAYDREAMS
- 8 - AUDITORY IMAGES IN DAYDREAMS
- 9 - PROBLEM SOLVING DAYDREAMS
- 10 - PRESENT-ORIENTED DAYDREAMS
- 11 - FUTURE-ORIENTED DAYDREAMS
- 12 - PAST-ORIENTED DAYDREAMS
- 13 - BIZARRE IMPROBABLE DAYDREAMS
- 14 - MIND WANDERING
- 15 - ACHIEVEMENT-ORIENTED DAYDREAMS
- 16 - HALLUCINATORY-VIVIDNESS OF DAYDREAMS
- 17 - FEAR OF FAILURE DAYDREAMS
- 18 - HOSTILE DAYDREAMS
- 19 - SEXUAL DAYDREAMS
- 20 - HEROIC DAYDREAMS
- 21 - GUILT DAYDREAMS
- 22 - CURIOSITY: INTERPERSONAL
- 23 - CURIOSITY: IMPERSONAL-MECHANICAL
- 24 - BOREDOM
- 25 - MENTATION RATE
- 26 - DISTRACTABILITY
- 27 - NEED FOR EXTERNAL STIMULATION
- 28 - SELF-REVELATION

Factor analytic studies of the IPI: Starker and Singer (1975) reviewed a series of factor analytic studies of the IPI. A consistent finding has been the existence of three distinct styles of daydreaming. The first of these, labeled Guilty-Dysphoric Daydreaming, is defined by a factor with high loadings for Guilt Daydreams, Fear of Failure Daydreams, and Hostile Daydreams.

A second style, Anxious - Distractible Daydreaming, is defined by a factor with high loadings for Distractibility, Mindwandering, Boredom, Frightened Reactions to Daydreams, and Absorption in Daydreaming. Singer (1975) notes that these two factors approximate the general neurotic styles described by Shapiro (1965): the obsessional personality and the anxious, hysterical personality. The third style, Positive - Vivid Daydreaming, is a factor characterized by high loadings for Acceptance of Daydreaming, Positive Reactions in Daydreaming, Visual Imagery in Daydreaming, Problem Solving Daydreams, and Future-Oriented Daydreams. The final style appears to represent a very positive attitude toward daydreaming and its productive value.

Concurrent validity of the IPI: In an attempt to establish the general validity of the IPI, it has been examined in relation to independently observed or reported behaviors. For example, in a study of Starker (1974), "blind" judges rated the nightdream content of Positive-Vivid daydreamers as having significantly more positive affect. Subjects scoring high on the Anxious-Distractible factor reported significantly more nightmares than low-scoring subjects. Starker and Hasenfeld (1976) indicated that reports of insomnia by their subjects were positively correlated with scores on both the Guilty-Dysphoric and the Anxious - Distractible factors. Daydreaming characteristics have also been observed to be related to performance in signal detection tasks (Antrobus, Coleman, and Singer, 1967), imaging tasks (Fusella, 1972), and in a study of eye shifts during reflective thought (Meskin and Singer, 1974).

Daydreaming research with psychiatric patients: Of special interest with regard to the present study is daydreaming research with psychiatric patients. Singer (1966) noted that studies of projective test responses generally indicate that psychiatric patients exhibit less varied and complex fantasies than normals, although bizarre responses are more common in the former group. Streissguth, Wagner, and Wechsler (1969) found a higher frequency of daydreaming in psychiatric patients than in normals, especially in dysphoric (a sense of

ill-being and dissatisfaction daydreaming content.

Two studies by Starker and Singer were concerned with the daydream activity of new psychiatric admissions to a Veterans Administration Hospital. In the first (1975a), the subjects' responses to a short-form of the IPI (6 scales) were compared to a specially designed symptom-oriented scale. Subjects with depressive symptomatology scored significantly lower on Positive Reactions to Daydreaming, but, interestingly, also exhibited less Guilt Daydreams than non-depressive subjects. The subjects were also divided into two groups on the basis of psychotic symptomatology. No significant differences between the two groups were observed on any of the six IPI scales.

In the second study (1975b), the psychiatric patients were compared to one of Singer's normative groups (college students) on the IPI short form. The psychiatric patients reported significantly fewer Positive Reactions to Daydreams, less Visual Imagery in Daydreams, and more Fear of Failure Daydreams. No significant differences between the two groups were found for Guilt Daydreams, Mindwandering, or Distractibility.

Method

The primary group of interest in this study is 63 new admissions to the Maximum Security Unit of Rusk State Hospital (RSH) in Rusk, Texas. These patients are identified as the mentally abnormal offender group. A comparison group of non-criminal state hospital patients consists of 49 patients at the Wichita Falls State Hospital (WFSH) in Wichita Falls, Texas. The IPI data obtained from these two groups will be compared (although not through inferential statistics) with that available for one of Singer's normative groups (n=206) (Singer and Antrobus, 1972).

Since the three groups are markedly dissimilar on a number of variables, the obtained results can only be considered suggestive. The demographic characteristics in terms of sex, age, and diagnosis for the two state hospital

groups is presented in Table II. The vast majority of the RSH group are male (89%) was compared to 61% of the WFSH group, and 63% of the normative group. The median age of the RSH group is 33 (range 19 to 83), as compared to 49 (range = 22 to 63) for the WFSH group. Essentially all of the normative group members were 18 or 19 years old college freshmen at the City University of New York. A wide range of psychiatric diagnoses were found for the RSH group, while 71% of the WFSH group are diagnosed as schizophrenics. Table II contains a demographic description of the two hospital groups.

TABLE II

IMAGINAL PROCESSES INVENTORY - RSH vs. WFSH

Demographic VariablesSex

RSH (n=63)
 Male = 56 (89%)
 Female = 7 (11%)

WFSH (n=49)
 Male = 30 (61%)
 Female = 19 (39%)

Age

RSH
 Median = 33
 Range = 19 - 83

WFSH
 Median = 49
 Range = 22 - 63

< 30 = 36 (57%)
 30 - 39 = 19 (30%)
 40 - 49 = 3 (5%)
 50 - 59 = 2 (3%)
 60 - 64 = 2 (3%)
 83 = 1 (2%)

< 30 = 13 (27%)
 30 - 39 = 5 (10%)
 40 - 49 = 8 (16%)
 50 - 59 = 12 (24%)
 60 - 63 = 12 (24%)

Diagnostic Group

RSH
 Schizophrenia = 16 (25%)
 Other Functional Psychosis = 6 (10%)
 Psychotic O B S = 2 (3%)
 Non-Psychotic O B S = 1 (2%)
 Neuroses = 4 (6%)
 Alcoholism = 1 (2%)
 Drug Abuse = 8 (13%)
 Mental Retardation = 4 (6%)
 Personality Disorder = 2 (3%)
 Transient Situational Behavior
 Disturbance = 16 (25%)
 No Mental Disorder = 16 (25%)
 Undiagnosed = 2 (3%)

WFSH
 Schizophrenia = 35 (71%)
 Other Functional Psychosis = 6 (2%)
 Psychotic O B S = 4 (8%)
 Non-Psychotic O B S = 6 (12%)
 Personality Disorder = 3 (6%)

The initial sample of RSH patients include 92 individuals. The test protocols of 29 (32%) individuals were discarded because of excessive omissions (>10), obvious pattern responding, or refusal to complete the inventory. Of the 57 WFSH patients on whom testing was attempted, 8 (14%) had to be discarded because of excessive omissions.

Singer and Antrobus' (1973) normative sample was given an earlier version of the IPI which included one additional scale and 56 additional items. Thus, it was inappropriate to compute tests of statistical significance between the responses of the normative group and the two state hospital groups. Nevertheless, the mean performance (which could range from 1-5) of the normative group on each of the 28 scales was compared to those of the state hospital groups in order to at least identify the rank-ordering of the three groups.

The IPI data for the RSH and WFSH groups were analyzed through the multiple discriminant analysis technique. In addition, the IPI data alone and a combination of the IPI and the Holtzman Inkblot Test data for the RSH group were factors analyzed (the principal-components method with varimax orthogonal rotation).

Results of the Multiple Discriminant Analysis: Significant differences ($P < .05$) were found between the two state hospital groups on 4 of the 28 scales. On the first of these, Daydreaming Frequency, the RSH group reported more frequent daydreaming than the WFSH group, but less daydreaming than the normative group. On two other scales, Nightdreaming Frequency and Heroic Daydreams, the mean scores for the RSH group were higher than either the normative (which were higher than the WFSH group) or the WFSH groups. On the fourth scale, Interpersonal Curiosity, the WFSH group had the highest mean, followed by the normative and RSH groups, respectively. On three additional scales, Sexual Daydreams, Impersonal-Mechanical Curiosity, and Need for External Stimulation, the higher means for the RSH group approached ($P < .10$) but did not reach significance.

No significant differences were found between the two state hospital groups on the six scales used by Starker and Singer (1975a; 1975b) as a short form of the IPI which presumably best represents the three daydreaming styles.

Factor analysis of the IPI: The purpose of conducting this analysis was to determine if the three daydreaming styles (factors) found by Singer and his co-workers (e.g., Singer and Antrobus, 1972) for a college group appear also in a mentally abnormal offender group. The results of the factor analysis of the IPI for the RSH group are presented in Table III (only scales with loadings of .40 or above are listed). The analysis, using the principal-components method and a varimax orthogonal rotation, yielded seven factors which accounted for 77.3% of the total variance.

The first factor accounts for 29.7% of the total variance. Over half (15) of the IPI scales load on this factor at the .40 level or above. In comparison to Singer's normative group, the RSH data revealed more extensive intercorrelations between the various scales. A majority of the scales reported by Singer and Antrobus to load significantly on the Positive-Vivid Daydreaming factor are found with the present sample. However, the scales reported by them as loading significantly on the Guilty-Dysphoric Daydreaming factor are also found with the RSH group on this first factor.

The second factor accounts for 10.4% of the total variance. For the RSH sample, the scales loading significantly on this factor have considerable overlap with the scales loading on Singer and Antrobus' Positive Vivid Daydreaming factor. The only notable exception is the absence of significant loading by the Visual Imagery in Daydreaming scale (.05 loading). This scale is one of the two used in the IPI short form to represent this factor (e.g., Starker and Singer, 1975a).

The third factor, which accounts for 11.1% of the total variance, overlaps

extensively with the scales reported by Singer and Antrobus (1972) to represent the Anxious-Distractible Daydreaming style.

The fourth factor, which accounts for 8.2% of the total variance, is not easily interpreted. All the significantly loading scales are negative in direction. One possible interpretation is that this factor reflects a rejection of daydreaming for its usefulness in problem-solving.

The fifth factor, which accounts for 5.2% of the total variance, seems best interpreted as reflecting negative feelings toward talking about daydreaming in individuals with an orientation toward mechanical as opposed to interpersonal curiosity.

The sixth factor, which accounts for 5.7% of the total variance, appears to be a direct opposite of the fifth factor. That is, individuals with an orientation toward interpersonal as opposed to mechanical curiosity have a great need for external stimulation and enjoy discussing their daydreams.

The final factor, which accounts for 7.1% of the total variance, is somewhat puzzling. Although there is a high degree of correspondence between the scales loading on this factor and those loading on Singer and Antrobus' Guilty-Dysphoric Daydreaming factor, there is a marked exception. The highest loading scale in the RSH factor is Acceptance of Daydreaming (+ .87). In the Singer and Antrobus study, the loading of this factor was -.25. Table III contains Factor Analysis of the Imaginal Processes Inventory.

TABLE III
FACTOR ANALYSIS OF THE IMAGINAL PROCESSES INVENTORY

	<u>Factor Loading</u>	<u>% of Total Variance</u>
<u>Factor 1</u>		29.7
Hallucinatory-Vividness of Daydreams	.82	
Auditory Images in Daydreams	.81	
Heroic Daydreams	.81	
Achievement-Oriented Daydreams	.79	
Visual Imagery in Daydreams	.78	

Table III (Continued)

	Factor Loading	% of Total Variance
Visual Imagery in Daydreams	.78	
Hostile Daydreams	.72	
Bizarre Improbable Daydreams	.70	
Frightened Reactions to Daydreams	.69	
Fear of Failure Daydreams	.69	
Absorption in Daydreaming	.68	
Guilt Daydreams	.66	
Sexual Daydreams	.63	
Positive Reactions in Daydreaming	.57	
Problem Solving Daydreams	.56	
Daydreaming Frequency	.49	
Factor 2		10.4
Nightdreaming Frequency	.78	
Daydreaming Frequency	.64	
Positive Reactions in Daydreaming	.59	
Problem Solving Daydreams	.43	
Past-Oriented Daydreams	.42	
Absorption in Daydreaming	.41	
Sexual Daydreams	.41	
Factor 3		11.1
Mind Wandering	.83	
Boredom	.73	
Distractibility	.71	
Past-Oriented Daydreams	.47	
Factor 4		8.2
Mentation Rate	-.79	
Future-Oriented Daydreams	-.59	
Problem Solving Daydreams	-.44	
Past-Oriented Daydreams	-.40	
Factor 5		5.2
Curiosity: Impersonal-Mechanical	.87	
Self-Revelation	-.50	
Factor 6		5.7
Curiosity: Interpersonal	.81	
Need for External Stimulation	.54	
Self-Revelation	.51	
Factor 7		7.1
Acceptance of Daydreaming	.87	
Present-Oriented Daydreams	-.57	
Guilt Daydreams	-.47	
Fear of Failure Daydreams	-.42	

FACTOR ANALYSIS OF THE HOLTZMAN INKBLLOT TEST
AND IMAGINAL PROCESSES INVENTORY

The purpose in conducting this analysis was to determine the degree of overlap between these two tests, the first being a projective test and the second a self-report inventory. A basic assumption of projective tests is that the characteristics of a subject's response are those that characterize the subject himself (Sechrest, 1968). In the self-report inventory, the subject is obviously characterizing himself directly.

The results of the factor analysis for those two tests in combination for the RSH group are presented in Table IV (only scales with loadings of .40 or above are listed). The analysis, using the principal components method, yielded thirteen factors which accounted for 80.8% of the total variance.

The first factor, which accounted for 24.5% of the total variance, has significant loadings (.40 or above) only by IPI scales (22 of the 28).

The second factor, which accounted for 13.3% of the total variance, has significant loadings only by Holtzman Inkblot Test (HIT) scales (13 of the 22).

Thus, it appears that the overlap between the two tests is minimal, at best. With one exception, the remaining factors (1) do not account for much of the total variance, and (2) tend to be dominated by one of the two tests.

Factor 3, which accounts for 6.8% of the total variance, is the one exception. Five HIT scales and four IPI scales have significant loadings on this factor. The IPI scales loading on this factor show the most correspondence with the Anxious-Distractible Daydreaming style. However, they tend to be negatively loaded on this factor, suggesting that non-anxious individuals tend to make more responses on the HIT in the categories of Anatomy, Penetration, and Space, and few Animal responses. Table IV contains Factor Analysis of the Holtzman Inkblot Test and Imaginal Processes Inventory.

TABLE IV
 FACTOR ANALYSIS OF THE HOLTZMAN
 INKBLOT TEST AND IMAGINAL PROCESSES INVENTORY
 (Scales with loadings of >.40)

	Factor Loading	% of Total Variance
Factor 1		24.5
IPI - Absorption in Daydreaming	.91	
IPI - Hostile Daydreams	.88	
IPI - Guilt Daydreams	.86	
IPI - Hallucinatory-Vividness of Daydreams	.86	
IPI - Auditory Imagery in Daydreams	.86	
IPI - Sexual Daydreams	.85	
IPI - Fear of Failure Daydreams	.84	
IPI - Heroic Daydreams	.82	
IPI - Achievement-Oriented Daydreams	.78	
IPI - Frightened Reactions to Daydreams	.77	
IPI - Daydreaming Frequency	.74	
IPI - Problem Solving Daydreams	.72	
IPI - Positive Reactions in Daydreaming	.70	
IPI - Visual Imagery in Daydreams	.70	
IPI - Bizarre Improbable Daydreams	.65	
IPI - Past-Oriented Daydreams	.60	
IPI - Need for External Stimulation	.59	
IPI - Future-Oriented Daydreams	.52	
IPI - Boredom	.51	
IPI - Night Dreaming Frequency	.46	
IPI - Present-Oriented Daydreams	.45	
IPI - Mindwandering	.42	
Factor 2		13.3
HIT - Popular	.83	
HIT - Movement	.82	
HIT - Human	.78	
HIT - Hostility	.74	
HIT - Intergration	.73	
HIT - Barrier	.66	
HIT - Rejection	.64	
HIT - Anxiety	.60	
HIT - Animal	.55	
HIT - Form Definiteness	.53	
HIT - Pathognomonic Verbalizations	.48	
HIT - Balance	.43	
HIT - Sex	.43	

TABLE IV (continued)

	Factor Loading	% of Total Variance
Factor 3		6.8
HIT - Anatomy	.58	
IPI - Mentation Rate	.54	
HIT - Penetration	.50	
HIT - Form Definiteness	-.49	
IPI - Future-Oriented Daydreams	.46	
IPI - Boredom	-.45	
HIT - Animal	-.43	
HIT - Space	.42	
IPI - Mindwandering	-.41	
Factor 4		5.9
HIT - Color	.63	
HIT - Shading	-.52	
IPI - Past-Oriented Daydreams	.49	
HIT - Anatomy	.46	
HIT - Pathognomonic Verbalizations	-.43	
HIT - Location	.43	
Factor 5		5.0
HIT - Form Appropriateness	-.56	
HIT - Anxiety	.47	
IPI - Curiosity: Impersonal-Mechanical	.43	
Factor 6		4.8
IPI - Curiosity: Interpersonal	.47	
IPI - Present-Oriented Daydreams	.43	
Factor 7		3.9
IPI - Self-Revelation	.49	
HIT - Pathognomonic Verbalizations	-.45	
HIT - Abstract	-.42	
Factor 8		3.5
IPI - Nightdreaming Frequency	.48	
HIT - Balance	-.43	
Factor 9		3.2
HIT - Space	-.41	
Factor 10		2.8
IPI - Curiosity: Impersonal-Mechanical	-.46	

TABLE IV (continued)

	Factor Loading	% of Total Variance
<u>Factor 11</u>		2.7
HIT - Location	-.54	
IPI - Need for External Stimulation	.51	
<u>Factor 12</u>		2.4
HIT - Form Appropriateness	.45	
IPI - Curiosity: Interpersonal	.42	
<u>Factor 13</u>		2.0
No factor loadings \geq .40		

SUMMARY OF FINDINGS

In the comparisons of the three groups (College, RSH, WFSH) on each of the 28 IPI scales, the College group exhibited the highest mean (without regard for the magnitude of the difference) on 15 (54%) of the scales; the RSH group had the highest mean on 9 (32%); and the WFSH group displayed the highest mean on 4 (14%) scales. Considering only the two state hospital groups, the RSH means were higher on 19 (68%) of the scales.

The results of the multiple discriminant analysis comparing the two state hospital groups revealed significant differences between them on several of the scales. The RSH (mentally abnormal offender) group had significantly higher means than the WFSH (noncriminal psychiatric) group on Daydreaming Frequency, Nightdreaming Frequency, and Heroic Daydreams.

Higher means for the RSH group approached ($P < .10$), but did not reach significance on Sexual Daydreams, Curiosity: Impersonal-Mechanical, and Need for External Stimulation. The mean score on the Interpersonal Curiosity scale was significantly higher for the WFSH group.

The factor analysis of the IPI data for the RSH group was compared to that reported by Singer and Antrobus (1972) to determine if the three daydreaming styles found in the normative college group also appear in a mentally abnormal

offender group. Specific factors were identified for the RSH group which corresponded closely, although not perfectly, with the three daydreaming styles.

The factor analysis of the combined IPI and Holtzman Inkblot Test responses of the RSH group indicated relatively little overlap between the two tests.

APPENDIX 6

DEVELOPMENT OF AN ACTUARIAL MODEL FOR PREDICTION
OF DANGEROUSNESS IN FORENSIC PATIENTS

by

James M. Mullen, Ph.D.
Mark Mason, M.A.
Robert Reinehr, Ph.D.
Harold K. Dudley, Jr., M.A.

As noted by Mullen (1979), the study of dangerousness is an attempt to define and analyze a phenomenon that is obscure. Methods available include the usual techniques of the research scientist: experimental design, natural observation, reconstruction of events, testing of hypotheses based on animal studies on violence, and the descriptive studies of incarcerated offenders. While it is difficult to contrive an experimental design to study dangerous behavior, studies employing natural observation of individuals engaged in dangerous behavior are nonexistent. Although clinicians and researchers frequently attempt to assess dangerousness by reconstructing events which appeared to contribute to the dangerous behavior, it is extremely difficult to do so by accounts of events which are usually reported by untrained observers, although it is relatively easy to conduct such investigations. It is impossible, of course, to obtain directly the kind of information that is most desirable to study violent behavior - namely, the opportunity to conduct studies which may provide physiological, psychological, and sociocultural data on what is happening within the individual offender as the violent act occurs, as well as the opportunity to determine the physiological, psychological, and sociocultural situational variables which contribute to the violent act.

The problem of defining and measuring dangerousness becomes increasingly complex for another important reason: the difficulty of predicting behavior which has an extremely low base rate. Approximately seven out of every 100,000 arrests in the U. S. are for violent crimes. As many studies indicate, clinicians tend to over-predict dangerous behavior, ignoring the low base rate of such behavior. Clinicians may overlook the low base rate of dangerous behavior in the general population because they evaluate the dangerousness of prison inmates and hospital patients within maximum security institutions where significantly large samples of such populations have engaged in dangerous behavior, or they may over-predict because of societal pressures to protect the public from the possibility of violence. Another possible reason for the over-prediction of dangerousness is the manner in which clinicians usually go about their task: determining dangerousness as if the concept of dangerousness were

CONTINUED

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some kind of extended psychiatric diagnostic category. In approaching the assessment of dangerousness through the medical model, clinicians tend to concentrate on the individual offender (examining the offender's psychiatric and psychological state, past medical and social history, and present hospital behavior), while overlooking the situational variables which contribute to dangerous behavior, the low base rate of dangerous behavior in the general population, and all the problems of defining and measuring dangerous behavior.

In view of these problems of predicting dangerousness, many researchers presently recommend an actuarial approach for the determination of dangerousness as a way of improving the quality of such decisions. By considering clinical and demographic variables together statistically, along with systematic follow up regarding decisional outcomes, methods of determining dangerousness may be improved. The purpose of the present project is to develop criteria to aid decision making. It is our goal, therefore, to develop an actuarial method, as suggested by Shah (1978). In fact, his observations on the matter are important for guiding clinicians who may be appointed to Review Boards for determining dangerousness, since an actuarial model may greatly improve the reliability and consistency of Review Board decisions:

Moreover, there is no reason why information provide by actuarial tables and similar devices could not be combined with specifically identified and empirically tested clinical information and also with explicit considerations of particular setting and situational factors. Systematic follow up and feedback regarding the decisional outcomes would allow periodic revisions designed to improve overall predictive accuracy (see, e.g., Burnham, 1975; Goldberg, 1970; Gottfredson, 1975; Gottfredson, Wilkins, Hoffman, & Singer, 1974). As Elstein (1976) recently noted, the fundamental value of the actuarial approach is not in the insistence on quantification. Rather, it is in an insistence that decision rules can be made explicit and that it is most desirable to make them so. Not only would this approach facilitate the teaching of novice clinicians and evaluators, but it would greatly improve the reliability of such judgments.

Although the purpose of the present study is a practical one of developing a data based actuarial system for determining dangerousness, a final broader matter should at least be acknowledged. Studies about the dangerousness of mental patients

may inadvertently promote the idea that mental patients are the most dangerous group in our society. Policy decisions which pertain to the issue of assessing dangerousness have been thoroughly explored elsewhere (Shah, 1978). There are broader considerations which must also ultimately be addressed. Some examples include the political implications of who decides who is dangerous in a democratic society and the implications of depriving citizens (usually poorer people) of constitutional rights to freedom because of supposed dangerousness.

Of the several major difficulties inherent in any effort to develop an actuarial model for predicting dangerousness, the most notable is choice of a criterion. From the point of view of society there is very little difficulty in this area. A person who is likely to commit a violent act is dangerous. An expert, a judge or a mental health professional, will render his opinion of this likelihood and that opinion will be the criterion. If the expert says a person is dangerous, he will be treated accordingly and no external criterion need be cited. The validity of the judgment will not be tested; individuals judged to be dangerous are not going to be released to society.

Paradoxically, the importance of the decision involved precludes the employment of powerful research designs. No true experimental or control groups will be permitted, no interference with the present course of judicial events. In addition, patients may belong to any of a large array of legal categories, each with its own set of statutory procedures which must be followed. Decision makers who determine the disposition of a case may be widely separated geographically and are in any event very difficult to involve in any research procedure due to other demands on their time.

In view of these considerations, the present study was divided into two sections; one of which would develop a research procedure which would parallel but not interfere with the disposition process and one of which would compare this procedure with the outcome of the current process to the extent possible.

The current statutory process involves, for at least some patients, a determination of dangerousness by a review board consisting of three psychiatrists (Dudley, 1978). For purposes of this research, a similar determination was made for each patient by a board consisting of three staff members. Actuarial prediction based on demographic and psychological test data was made to two criteria: the judgment of this research board and the post-release history (for the patients who were released during the time frame specified by the study). Such limited comparisons as were possible were made between the decisions of the two boards and the subsequent histories of patients who had been seen by each.

Method

All male patients admitted to the Maximum Security Unit of Rusk State Hospital during 12 month period (n=269) were administered a battery of psychological tests. Demographic information was collected from several sources. The instruments used and the normative characteristics of this sample are contained in a previous paper (Mullen, 1979). For each individual in the sample, a research panel consisting of a Psychologist, Social Worker, and a Psychiatric Aide made a dichotomous decision regarding the dangerousness of the patient. Each panel member had at least one year of experience, was familiar with the patient, and had access to the same information available to the official review board. Agreement by two or more panel members was the criterion for placement of an individual in the dangerous or non-dangerous group.

Differences between the dangerous and non-dangerous groups on demographic and psychological test data were evaluated by chi-square, analysis of variance, and discriminate analyses. A subsequent sample of subjects was collected and similar analyses computed for cross-validation purposes. Post-discharge histories were compiled for those subjects of the original sample who were discharged in the month period following their initial testing (n=136). Accuracy of predictions of violent behavior of both an actuarial model and panel judgments were investigated. Some limited comparisons were made of panel judgments and review board judgments.

Results

Demographic Variables

Of the large amount of demographic information collected on each patient, only six variables show significant differences between the dangerous and not dangerous groups. These variables are: age at admission, marital status, arrest record, fighting behavior, threat of suicide, and desire to be in the institution. Sample sizes vary slightly due to varying numbers of invalid responses on each item.

Age at Admission

Regarding age at admission, there are 286 valid responses, 173 from the not dangerous group and 113 from the dangerous group. Patients are divided into five age groups: 0-21, 22-25, 26-30, 31-40, 41 and over. For the dangerous group, 48 percent are 25 years old or less at the time of admission; only 31 percent of the not dangerous group fall into this age range. The highest percentage of the dangerous group falls into the 22-25 age category (34 percent) and the lowest percentage of this group is in the over 41 age category (12 percent). On the other hand, the largest percent of the not dangerous group is for the 26-30 age group (28 percent) and the smallest percent (13 percent) falls in the 0-21 age group. These statistically significant results [$\chi^2 (4) = 9.99, p < .05$] substantiate the work of other researchers (Cocozza and Steadman, 1977; Henn, Herjanic, and Vanderpearl, 1977). The dangerous patients are younger than not dangerous patients. For the mentally ill offender in this study the crucial age range for committing violent crimes is 20 to 24 years.

Marital Status

There are 282 valid responses given to questions regarding marital status, 169 for the not dangerous group and 113 for the dangerous group. The source documents identify six different groups: never married, married but separated, widowed, divorced, married (living together), and common law. The six groups are collapsed into three categories for purposes of analysis: (1) never married, (2) married but

separated, widowed, or divorced, and (3) married (living together), and common law. Fifty-seven percent of the entire sample has never married. This category includes 53 percent of the not dangerous group and 64 percent of the dangerous group. The remainder of the dangerous group is almost equally divided between the second and third categories, while for the not dangerous group 31 percent are in the second category and 15 percent are in the third category. These statistically significant results [$\chi^2 (3) = 8.22, p < .05$] are also consistent with other studies (Cocozza and Steadman, 1977; Piotrowski, Losacco, and Guze, 1976; Mullen and Rollins, 1977; Levinson and York, 1974; and Bach-y-Rita, Lion, Climent, and Ervin, 1971), which report the problems mentally ill offenders have in establishing and maintaining marriages.

Arrests for Violent Crime

There are 235 valid responses (138 not dangerous, 87 dangerous) to the question about the patient's present arrest for a violent or a non violent crime. A larger percentage of the not dangerous group (63 percent) are arrested for non-violent crimes, and a larger percentage of the dangerous group (58 percent) are arrested for violent crimes. This statistically significant finding [$\chi^2 = 9.14, p < .001$] is congruent with findings of previous research (Mullen and Rollins, 1977; Bach-y-Rita and Veno, 1974; White, Krumholz, and Fink, 1969; and Guttmacher, 1963).

Fighting Behavior

The fourth significant demographic variable regards patients fighting behavior during the six months prior to commitment to the maximum security hospital. Responses are divided into three levels of fighting: never, rarely, and frequently. Frequency counts based on 240 valid responses (147 not dangerous, 93 dangerous) are statistically significant [$\chi^2 (2) = 11.57, p < .01$].

Sixty-one percent of the dangerous group and 74 percent of the not dangerous group report never fighting during the period in question. Only 7 percent of the dangerous patients and 12 percent of the not dangerous report frequent fighting. Twice as many of the dangerous group (32 percent) report rare fighting encounters as compared to the not dangerous group (14 percent). Thus 26 percent of the not

dangerous group engage in any kind of fighting, whereas a total of 39 percent of the dangerous group fights occasionally. These findings suggest that the dangerous patient may be more volatile than the not dangerous and subsequently more prone to overt aggression, although the differences are not dramatic. Fighting behavior has also been shown to have predictive value in determining prison parolees who would violate probation by Waller (1974).

Suicide Attempts

On the question of threatening to commit suicide during adolescence, there are 251 valid responses; 147 not dangerous patients and 104 dangerous patients. The dangerous group (12.5 percent) reports more frequent threats of suicide than the not dangerous group (5 percent). The frequency count in a contingency table reflecting a dichotomous yes/no response is statistically significant [$\chi^2 (1) = 4.97, p < .05$]. These results appear consistent with the work of other researchers who have investigated the relationship between violence and suicide (Bach-y-Rita, Lion, Climent, and Ervin, 1971; and Whitlock and Broadhurst, 1969).

Patient Desire to be Institutionalized

The last demographic variable showing differences between the two groups concerned the patient's desire to be in the maximum security hospital facility. Responses for 151 patients, 96 not dangerous and 55 dangerous, are dichotomized into two groups: patients stating a preference to presently being in an institution (hospital or prison) or at home. Seventy-one point five percent of all patients believe they would be better off at home. Of the dangerous patients, 38 percent feel that they would be better off in an institution. Only 23 percent of non-dangerous patients express such a preference. These results are statistically significant [$\chi^2 (1) = 4.00, p < .05$]. The choice of institutionalization by so many patients in the dangerous group may reflect knowledge of being dangerous enough to need the restraint of imprisonment or ill enough to need treatment.

In summary, these demographic variables reflect some significant differences between the dangerous and not dangerous groups. The dangerous patient tends to be younger at time of admission, maintains bachelorhood more often but forms more stable unions if he does marry, commits the more violent crimes, fights rarely but more often than the not dangerous patient, is more likely to threaten suicide during adolescence, and would more often choose institutionalization over home care.

It is interesting to note that there are no differences between the dangerous and not dangerous groups by race, by psychiatric diagnoses, educational achievement, and employment. Staff judgments of dangerousness were not related to parental alcoholism, broken homes, or psychiatric illness in parents. No evidence was found that enuresis, firesetting and cruelty to animals differentiate the dangerous from not dangerous patients. Nor do referral for treatment of emotional disorders in childhood/adolescence or the amount of physical punishment in childhood/adolescence, differentiate the dangerous from the not dangerous patients.

Psychological Test Variables

Buss-Durkee Inventory

From the Buss-Durkee Inventory, significant differences are found ($F = 3.6$, $p = .0008$) between the dangerous group ($N = 106$) and the not dangerous group ($N = 158$) by a discriminate analysis (Table 1). Although no individual scale on the Buss-Durkee Inventory shows statistically significant differences between the dangerous and not dangerous groups, the three scales showing the greatest differences are Irritability ($F = 2.9$, $p = 0.08$), Resentment ($F = 3.6$, $p = 0.05$), and Guilt ($F = 3.35$, $p = 0.06$). The dangerous group has mean scores higher than the not dangerous group on the Irritability, Negativism, and Guilt scales. On the five other scales the not dangerous group has higher mean scores than the dangerous group. In fact, the total of mean scores for the not dangerous group ($\bar{X} = 35.0$) is slightly higher than the total of mean scores for the dangerous group ($\bar{X} = 34.7$). Essentially, there are no interpretable mean differences between the two groups, although the multivariate analysis

discriminates between them. This outcome is the result of the statistical combination of several variables, each of which fails to achieve the .05 level of significance in individual analysis.

Holtzman Inkblot Technique

The dangerous and not dangerous groups differ significantly in mean scores on four scales of the Holtzman Inkblot Technique (Table 2): Movement ($p = .03$), Anxiety ($p = .01$), Hostility ($p = .001$), and Pathognomonic Verbalization ($p = .05$). On each variable, the dangerous group achieves the higher mean score. These findings suggest that the dangerous and not dangerous groups may be differentiated on bases other than pathology alone, although they do suggest the existence of more disturbance of affect and thought process in the dangerous group. Anxiety, Hostility, and Pathognomonic Verbalization essentially define Factor III in this study, as in Holtzman's study. Movement, on the other hand, loads heavily on Factor I in both studies, although it should be noted that it correlates highly with both Anxiety ($r = .48$) and Hostility ($r = .61$).

Separate factor analyses of the Holtzman Inkblot Technique were performed on the dangerous and not dangerous groups (Table 3), revealing quite different factorial structure. In each group, seven factors were extracted. For both groups, Factor I is very similar to that reported by Holtzman, containing high loadings for Form Definiteness, Movement, Integration, Human, Barrier, and Popular. The dangerous group also has a very high loading (.80) for animal on this factor.

Factor II is similar to Holtzman's, being defined primarily by Color and Shading. The dangerous group also shows the high negative loading (-.66) for Form Definiteness noted in Holtzman samples, but the not dangerous group shows a high positive (.52) loading for the same variable.

The most striking difference between the factorial structures of the two groups involves an interchange of the variables loading on Factors III and VI. The not dangerous group closely resembles the entire sample on these factors, Factor III being

defined by Pathognomonic Verbalization, Abstract, and to a lesser extent by Anxiety and Hostility. Factor VI is defined by Anatomy, Penetration, Sex, Anxiety, and Hostility. In the dangerous group, on the other hand, Factor III is defined almost exclusively by Anatomy (-.82) and Form Appropriateness (.82). Pathognomonic Verbalization and Abstract appear on Factor VI. The dangerous group differs in factorial structure primarily by this association of Pathognomonic Verbalization and Abstract with the other usual Factor VI variables and by the existence of a factor (III) defined by anatomy and FA. The not dangerous group more closely resembles the sample as a whole. The vast majority of the variance explained is accounted for by four factors (I, II, III, VI). In the dangerous group these four factors account for 78 percent of the explained variance, in the not dangerous group for 74 percent. In both the dangerous and not dangerous groups the other factors seem to be primarily residual. Reaction Time and Balance each define a factor in the dangerous group, the two variables combining to define a factor for the not dangerous. This finding is at variance with Holtzman's data.

Stepwise Discriminate Analysis

The multiple discriminate analyses determined significant differences between the dangerous and not dangerous groups by the Buss-Durkee Inventory, the Holtzman Inkblot Technique, and demographic variables (age at admission, marital status, arrest for violent crime, fighting, suicidal behavior, and patient's desire to be in an institution. From these results variables were selected for a stepwise multiple discriminate analysis. In addition to the significant variables determined by univariate F tests, other variables were included (e.g., the 22 Holtzman Inkblot Technique variables and all Buss-Durkee variables), since the stepwise discriminate analysis (BMD 07M) selects its own variables in producing a regression equation. One significant demographic variable, the patient's desire to be in an institution, was omitted from the stepwise discriminate analysis because the sample size would be considerably reduced.

In examining results of the stepwise discriminate analysis, nine variables provide the most efficient model for differentiating between the dangerous and not dangerous groups. The nine variables in their contributing order are: marital status, Holtzman Inkblot Technique variables of Hostility, Penetration, Popular, Verbal Hostility (Buss-Durkee), Fighting, Crime, and the Buss-Durkee Negativism and Irritability scales. Several variables which did not show significant mean differences between the groups, did contribute substantially to the stepwise discriminate function. Others, which showed significant mean differences between the groups, did not contribute heavily to the discriminate function due to their high intercorrelation with other variables loading on the function.

The demographic and social history variables which were significant in differentiating between the dangerous and not dangerous groups by chi square analyses included marital status, crime, and fighting. In the multiple discriminate analysis these variables also contributed to the multiple regression equation in differentiating the dangerous and not dangerous patients. They emerged in the following order: Marital Status ($F = 11.82$, $p = .001$), Crime ($F = 6.54$, $p = .01$), Fighting ($F = 7.6$, $p = .006$). Differences in the means between dangerous and not dangerous groups suggest that more of the dangerous patients are separate/divorced, that the dangerous group commits more violent crimes and that the dangerous group fights more often.

The Buss-Durkee Inventory variables which emerged from the stepwise multiple discriminate analysis were Verbal Hostility, Negativism, and Irritability. There are no significant differences between the dangerous and not dangerous group means. What slight differences do exist in means do not always occur in the expected direction.

The Holtzman variables which emerge from the stepwise discriminate analysis differ from those in the first discriminate analysis. Factor III is rather less well defined here. This is due in part to the exclusion of those variables which are highly correlated with some other variable and in part to the inclusion of some variables, notably Penetration and Popular, which are of some value in the refinement

of the discrimination after the initial function has been developed.

In applying the stepwise discriminate analysis model to patients in the sample, a total of 21 percent of the dangerous patient group are misclassified and a total of 23 percent of the not dangerous patient group are misclassified. Using the cutting point of .50 probability of classifying a patient correctly as dangerous or not dangerous, a total of 22 percent of the patients are misclassified. Other cutting points, of course, may be chosen. The actual choice of a "best" cutting point should be based on pragmatic rather than statistical considerations. An unwillingness to misclassify dangerous patients, for example, might dictate the choice of a cutting point which minimizes this sort of error, even at the cost of considerable misclassification of not dangerous patients.

Coefficient values for the nine variables, which form the stepwise discriminate function model, are presented in Table 4. An application of the prediction model is as follows: Step I: Multiply the raw score values of each of the nine variables by their coefficients, and sum together with the constant term to create two numbers. Step II: Raise the base of the natural log system for both numbers (e^X or 2.71828^X). Step III: Add these numbers together and determine what percent each of the two numbers is of their sum. This percentage states the probability of group membership as dangerous and not dangerous.

An illustration of the prediction equation may be helpful. For Step I, a patient's scores for the nine variables are: Marital Status, 5; Holtzman Inkblot Technique Hostility, 2; Holtzman Inkblot Technique Penetration, 1; Holtzman Inkblot Technique Popular, 9; Buss-Durkee Inventory Verbal Hostility, 8; Fighting, 5; Crime, 1; Buss-Durkee Inventory, 1; Buss-Durkee Inventory Irritability, 1. Each variable is multiplied by its coefficient. For column 1 Marital Status becomes $-.39985$ and for column 2 becomes $.4824$. For column 1 Holtzman Inkblot Technique Hostility becomes $.7899$ and for column 2 becomes $.51096$. The sum for the nine variables in column 1 becomes 7.19411 , while sum in column 2 becomes 7.35303 . In Step II these numbers are raised: $e^{7.19411} = 1331.5647$, $e^{7.35303} = 1560.9188$; and for Step III the sum of

$e^X = 2892.4836$. This patient, therefore, has a 46 percent probability of being declared not dangerous by staff judgment ($1331.6 \div 2892.5$) and a 54 percent probability of being declared dangerous by staff judgment ($1560.9 \div 2892.5$).

A separate paper by Craig investigated the relationship between the judgments of the research panel and those of the statutory review board (Table 5). The realities of the situation made precise comparison impossible (two different types of statutory board existed during this period and only a total of 100 patients were seen for review) but certain differences are apparent.

- 1) The review boards were much more likely to reach a unanimous decision than was the research panel.
- 2) The review boards were more likely to label an individual dangerous.
- 3) There was rather poor agreement (62%) between the review boards and the research panel.

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TABLE 1

Discriminate Function Analysis of Buss-Durkee Inventory (BDI) for Dangerous and Not Dangerous Patient Groups

Variable	Mean Dangerous Group (N = 106)	Mean Not Dangerous Group (N = 158)	F Ratio	P
Verbal Hostility	5.9	6.4	2.01	0.15
Guilt	5.1	5.2	0.11	0.75
Suspicion	5.4	4.8	2.98	0.08
Resentment	3.6	3.4	0.66	0.58
Irritability	4.2	4.8	3.63	0.05
Indirect Hostility	3.4	3.6	0.36	0.56
Assault	4.7	4.7	0.00	0.96
Negativism	2.5	2.1	3.35	0.06
Total Score	34.7	35.0		

TABLE 2

Means of HIT Variables
(Cross-validation Sample, N = 136)

	Judged Dangerous (N = 46)	Judged Not Dangerous (N = 90)	Total Sample (N = 136)
Fd	81.76	80.38	80.85
Fa	36.24	34.09	34.82
Rt	16.59	14.86	15.45
Rs	6.76	8.20	7.71
S	0.50	0.57	0.54
B	0.32	0.46	0.41
C	16.28	13.27	14.30
Sh	10.17	7.73	8.56
M	21.93	18.63	19.76
I	7.37	6.82	7.01
H	19.20	16.40	17.36
An	19.20	21.24	20.54
At	6.24	5.31	5.63
Sx	3.13	2.73	2.87
Ab	1.11	0.31	0.59
Ax	13.24	9.89	11.03
Hs	9.37	6.67	7.59
Br	3.24	3.24	3.24
Pn	5.33	4.01	4.46
L	19.39	20.51	20.13
V	12.15	9.54	10.43
P	5.80	6.08	5.99

TABLE 3a

HIT Multiple Discriminate Analysis
of Dangerous (N = 106) vs. Non-Dangerous (N = 163)

Variable	F-Ratio	Probability
Form Definiteness	1.1121	.2927
Form Appropriateness	.3545	.5593
Reaction Time	.6518	.5742
Rejection	.1017	.7488
Space	.0282	.8612
Balance	2.3790	.1201
Color	2.2807	.1281
Shading	.0790	.7758
Movement	4.7075	.0290
Integration	.0057	.9377
Human	.1310	.7186
Animal	.3002	.5911
Anatomy	1.2057	.2725
Sex	.5510	.5347
Abstract	1.0764	.3009
Anxiety	6.1825	.0130
Hostility	12.6772	.0008
Barrier	1.0513	.3068
Penetration	1.5652	.2093
Location	1.0901	.2977
Pathognomonic Verbalization	3.8366	.0482
Popular	1.3130	.2515

TABLE 3b

Factor Analysis of Holtzman Inkblot Technique
of Sample at Admission (N = 269)

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Fd	.5737	-.5687	-.1994	-.0198	-.2531	-.1762	.0584
Fa	.4072	.1111	.2078	-.0824	.5358	-.3327	.2458
Rt	.0343	-.0337	-.0698	.0114	-.1625	-.0161	.8387
Rj	-.4396	-.4861	.1130	.3304	.4460	-.2852	-.0055
S	.0102	.1102	-.0711	-.8435	.0737	.0145	-.0062
B	.0976	.0534	.0149	-.0955	.2342	.0774	.6527
C	.0487	.8292	-.1925	.0295	-.0032	.0317	-.0663
Sh	.2341	.7910	-.0604	-.0027	.0137	.0643	.1098
M	.8244	.1402	-.2740	.0422	-.1493	.0399	-.0071
I	.9112	.0638	.0658	-.0200	-.0013	.0439	.0362
H	.6575	-.1080	-.3804	-.2590	-.0385	.3282	.0348
An	.4226	-.0107	.0083	-.0668	-.7627	-.0036	.0327
At	-.1544	.0268	.1166	-.0295	-.0132	.9015	-.0150
Sx	.2930	-.1589	-.3884	-.2350	.2081	.4074	.0257
Ag	-.0055	.1695	-.7297	-.0175	.0623	-.0735	.0995
Ax	.3550	.1060	-.5128	.1382	-.2341	.5279	-.0409
Hs	.4939	.0814	-.5414	.0789	-.1874	.3976	-.0158
Br	.6422	.2695	-.1226	-.0899	-.1923	-.0476	.1303
Pn	.1109	.1707	-.1022	.0080	-.0637	.8736	.0427
L	.3445	-.2123	.1372	-.6260	-.2866	-.0080	.1581
V	.0848	.0578	-.8743	.0029	-.0839	.0480	-.0229
P	.8639	.0091	-.0253	-.1518	.0294	-.0545	.0933

TABLE 3c

Factor Analysis of Holtzman Inkblot Technique
at Admission for Dangerous Group (N = 106)

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Fd	.5213	.3003	-.6673	.0285	.0348	.0098	-.1044
Fa	.0837	-.1514	.1072	.8195	.0603	.1247	.0628
Rt	.1029	.0804	-.0099	.0510	.0423	-.0580	-.8701
Rj	-.7055	-.1322	-.4168	.2873	.2879	-.0217	.1372
S	-.0625	.0261	.0993	.0310	-.8201	.1074	.0195
B	.2186	-.0306	.0969	-.0306	-.0411	.8101	.0851
C	-.0204	.1847	.8512	-.0034	-.0158	-.0908	.0806
Sh	.1742	.1509	.7443	.1395	-.0069	.2668	-.1282
M	.7861	.4018	.0060	.1064	-.0331	.0714	.0344
I	.8358	.0629	-.0630	.1978	.0811	.2343	.0277
H	.5590	.5842	-.1909	-.0223	-.2551	.1835	-.0915
An	.7946	-.0491	-.0205	-.1662	-.0413	-.1754	-.1199
At	-.0887	.0537	.0148	-.8230	.0701	.1744	.1202
Sx	.2077	.4368	-.1898	.0433	-.5598	-.1643	.1154
Ag	-.1744	.6121	.2346	-.0863	.0332	.2656	-.2631
Ax	.4729	.7032	.1751	-.1557	.0928	-.1540	.1566
Hs	.5099	.6904	.0891	-.1008	-.0096	-.1872	.1355
Br	.6380	.2382	.2245	.1242	-.0830	.1463	-.2399
Pn	.3385	.5413	.2406	-.2967	.2058	.1086	.0015
L	.5071	-.1795	-.1201	.0236	-.4133	-.0642	-.3864
V	.0320	.8617	.0481	.0421	-.2196	-.0615	-.0602
P	.7632	.1860	-.1257	.2389	.0282	.2214	.0070

TABLE 3d

Factor Analysis of Holtzman Inkblot Technique
at Admission for Not Dangerous Group (N = 158)

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Fd	.6194	.1397	.5228	-.1137	.0729	.0023	.3029
Fa	.4647	.2980	-.0847	.1706	.3251	.1200	-.4874
Rt	.0721	-.0267	.0297	-.0040	.8113	-.0591	.1063
Rj	-.3377	.3158	.5237	.1126	.0536	-.3975	-.4100
S	.0584	-.0241	-.0974	-.0173	.0575	.8128	-.0495
B	.0304	-.0224	-.0553	-.0429	.7296	.1539	-.1169
C	.1442	-.0654	-.8430	-.1003	-.0357	-.0412	-.0000
Sh	.2186	-.0857	-.8159	-.0241	.0942	.0152	.0138
M	.8188	-.1073	-.2238	-.1827	.0029	-.0524	.1648
I	.8998	-.1010	-.1136	.0693	.0024	.0599	.0013
H	.6426	-.4606	.0844	-.2536	.0019	.2960	.0166
An	.3145	-.0208	-.0054	.0013	.0188	.0984	.8488
At	-.2167	-.8746	-.0502	.1974	-.0291	.1059	-.0268
Sx	.2963	-.5403	.1092	-.2704	.1127	.0488	-.1907
Ag	.0910	-.0022	-.0829	-.8324	.0685	.0554	-.0934
Ax	.2381	-.7230	-.1008	-.2838	.0236	-.0927	.2430
Hs	.5010	-.6201	-.1488	-.2938	.0903	-.1030	.1712
Br	.6499	.0108	-.2656	-.0237	.0763	.0820	.1849
Pn	-.0298	-.9117	-.1782	.0452	.0010	.0554	.0417
L	.3333	-.0503	.2881	.1949	.1099	.6788	.1646
V	.0862	-.1053	-.0824	-.8550	-.0116	-.1031	.1469
P	.8561	.0193	-.0416	-.0584	.0884	.2445	.0135

TABLE 4

Stepwise Discriminate Function Model

Variable	Not Dangerous Group	Dangerous Group
Marital Status	-.07997	-.09648
HIT Hostility	.39495	.25548
HIT Penetration	.69031	.51802
HIT Popular	.99855	.83959
BDI Verbal Hostility	.14861	-.06912
Fighting	-.42750	.00492
Crime	8.56304	9.50760
BDI Negativism	7.32188	6.39320
BDI Irritability	4.04673	5.02461
Sum =	-21.85623	Sum = -22.11171

TABLE 5

Prediction of Panel Judgement By Formula
(Cross-validation Sample, N = 136)

	Judged Dangerous By Panel	Judged Not Dangerous By Panel	Total
Judged Dangerous By Formula	19	36	55
Judged Not Dangerous By Formula	27	54	81
Total	46	90	136

APPENDIX 7

ADDITIONAL REPLICATION SAMPLES:
MASSACHUSETTS, ILLINOIS, TEXAS

by

James M. Mullen, Ph.D.
Mark Mason, M.A.

Introduction

As the Texas Department of Mental Health and Mental Retardation (TDMHR) Dangerousness Project has progressed, several clinicians in other mental health settings expressed interest in participating in the study. Additional project sites included: (a) Bridgewater State Hospital, Bridgewater, Massachusetts; (b) Chester Mental Health Center, Chester, Illinois; (c) Isaac Ray Center, Chicago, Illinois; and (d) Brownwood Reception Center, Texas Youth Council.

(a) The Bridgewater Sample: In Massachusetts, the study was directed by Robert Fein, Ph.D., Deputy Medical Director, Bridgewater State Hospital (affiliate of McLean Hospital and Harvard Medical School), and Harold G. Willey, Director Psychological Services, Bridgewater State Hospital. An acknowledgement of gratitude is expressed to Park Dietz, M.D., Director of Forensic Psychiatry at Bridgewater State Hospital, and Professor of McLean Hospital and Harvard Medical School.

Bridgewater State Hospital is a large modern facility under the supervision of the Massachusetts Department of Corrections. Psychiatric and psychological services are provided to the hospital by contract with McLean Hospital, Harvard Medical School. Bridgewater is the only state hospital providing psychiatric inpatient services for the entire Massachusetts correctional system, in addition to psychiatric inpatient services provided for the Massachusetts mental health system. The patient population of approximately 350 males is committed to the hospital from across the state of Massachusetts, with a considerable number from the Boston metropolitan area. The facility has experienced an increased demand for services over the last several years. In 1976, the annual admission total was approximately 800 patients, while the projected number of patients admitted in 1979 is between 1,000 and 1,100. The monthly rate of admissions ranges from 80 to 100 patients.

This forensic psychiatric patient population has been hospitalized by actions of Massachusetts' courts, with the majority of patients judged as "extraordinarily

dangerous" in respect to their committing serious violent crimes. Under the Massachusetts mental health code, a patient may be involuntarily committed to a mental hospital on a judgement of mental illness and dangerousness. For a patient to be committed to Bridgewater, it must also be demonstrated to the court that the patient needs to receive psychiatric services in a strict maximum security setting.

Bridgewater State Hospital provides the usual services of a maximum security forensic psychiatric hospital - namely, pre-trial evaluations to determine competency to stand trial, treatment of patients judged as incompetent or not guilty by reason of insanity, treatment of prison inmates transferred from the Massachusetts Department of Corrections, and treatment for dangerous offenders committed to the hospital according to mental health statutes.

(b) The Chester, Illinois Sample: At the maximum security hospital for the state of Illinois, the Chester Mental Health Center in Chester, Illinois, the study was directed by Daniel Cuneo, Ph.D., Director of Research, and Terry Brelje, Ph.D., Superintendent. Chester, a large modern facility, provides inpatient forensic psychiatric services for the entire state of Illinois. Its patient population is approximately 300 males, committed from across the state of Illinois, with the majority of patients from the Chicago metropolitan area. The annual admission total is less than 300 patients. It is noteworthy that approximately 250 to 300 patients (83 percent) have been committed to the Chester maximum security hospital because of involvement in serious violent crimes. The Chester facility does not provide pretrial competency evaluations, which accounts for an annual admission total much lower than Bridgewater State Hospital or Rusk State Hospital. Recent changes in Illinois law, however, suggest that the Chester maximum security facility may soon have a marked increase in monthly and annual admission rates.

Presently, Chester's forensic psychiatric services are focused on the treatment of patients determined to be incompetent to stand trial or determined not

guilty by reason of insanity. "Dangerous" involuntary civilly committed patients may also be admitted to the Chester facility, with approximately 50 (16 percent) of the 300 resident patient population in this category. In Illinois, the "dangerous" involuntary civilly committed patient is not committed to Chester directly by the court, but rather to the Illinois Department of Mental Health and Developmental Disabilities. Within the Illinois Department of Mental Health and Developmental Disabilities, criteria for patient commitment to Chester is not by mental health statute. Rather, prospective patients are reviewed in a due process hearing, in which a board determines whether a patient is to be committed to the Chester facility. All other alternatives of providing psychiatric care in a least restrictive atmosphere are to be exhausted within the department of mental health before the decision is made to commit the patient to the Chester facility. Finally, prison inmates are not transferred to the Chester facility for psychiatric care, as they are at Bridgewater State Hospital and Rusk State Hospital. The Illinois Department of Corrections provides its own facility for the psychiatric care of its prison inmates.

(c) Isaac Ray Sample: In Chicago, the study was directed by Richard Rogers, Ph.D., senior clinical psychologist, Isaac Ray Center, and James Cavanaugh, M.D., Director, Isaac Ray Center. The Isaac Ray Center is the Section on Psychiatry and the Law, Department of Psychiatry, Rusk-Presbyterian-St. Luke's Medical Center, Chicago, Illinois. The Isaac Ray Center, established July 1, 1978, provides outpatient psychiatric services for mentally disordered offenders.

Forty individual cases were evaluated in the first year of the Isaac Ray program. Sixteen were determined to be not guilty by reason of insanity; 18 were determined to be sane at the time of the crime, while 6 individuals received treatment at the Isaac Ray Center as an alternative to incarceration. Approximately one-half of the patients were involved in serious violent crimes.

(d) Texas Youth Council: The project in the Texas Youth Council was directed by Kirk Heilbrun, University of Texas Graduate School, Department of Psychology; and Stuart Vexler, Ph.D., former Director of Research, Texas Youth Council. The Texas Youth Council is responsible for all juveniles within the Texas Criminal Justice system. The Brownwood Center, where the study was carried out, is the TYC evaluation center for the state of Texas. The prediction model for the TDMHMR project was developed on a population of adult male psychiatric patients at Rusk State Hospital, Rusk, Texas. The TYC sample is one of males under the age of 18 who are clients of the criminal justice system, not the mental health system. TYC was interested in our project because of the issue of dangerousness as it applies to youth offenders, and wanted to learn if the instruments used in the TDMHMR project might have some relevance for youth. Any discussion of the TYC sample must be considered separately from the other samples used in the TDMHMR project.

Methodology

The research protocol used in the Massachusetts, Illinois, and Texas youth samples was identical with the prediction model in the TDMHMR samples at Rusk State Hospital. The instruments administered to each subject included: The Holtzman Inkblot Technique (Form A); the Buss Durkee Aggression Inventory, and several demographic type questions. The instruments in each of the samples, especially the Holtzman Inkblot Technique, were administered by appropriately trained clinicians. Holtzman Inkblot Technique protocols were scored by the principal investigator, while all data were analyzed at TDMHMR.

For each sample, staff judgments of patient dangerousness were assessed by three clinicians. The criteria given to the judges were identical with the criteria in the TDMHMR study, while the conditions for selecting clinicians as judges resembled the original study. The selection of subjects into the dangerous and not dangerous groups was identical with the original study. At least two of

three votes placed each patient into the dangerous or not dangerous group. The independent variables (Holtzman Inkblot Technique, Buss Durkee Aggression Inventory, and the demographic information) were used, as in the original study, to predict clinicians' judgments of dangerousness. For each sample, once the original prediction equation was tested, a new equation was developed from the independent variables to predict staff judgments.

Finally, wherever possible, additional analyses of the Holtzman Inkblot Technique were performed. Factor analyses, using the Veldman Verimax Rotation method, were performed for each total group sample, and for dangerous and not dangerous groups, in order to compare results with the original TDMHMR study, as well as with Holtzman standardized data.

Results

General characteristics of the Bridgewater, Chester, and Chicago samples are reported in Table I. The average age of the Bridgewater patients (N=39) is 28.0, of the Chester patients (N=31) is 25.9, and of the Chicago Outpatients (N=21) is 33.5. An outstanding number of patients in each sample were hospitalized because of arrests for violent crimes - namely, murder, rape, robbery, aggravated assault: 74.4 percent of the Bridgewater patients were charged with violent crimes, while 65 percent of the Chicago sample patients and 41.9 percent of the Chester sample patients were charged with violent crimes. Divergent accounts are reported on the frequency of patient fighting behavior within the past six month period. For the two inpatient groups (Bridgewater and Chester) approximately 65 percent of the patients report they are involved in frequent fights, which contrasts with only 14 percent of the outpatient group reporting frequent fighting. Finally, it is interesting to note responses to the question of placement. Patients were asked if they thought they would be better off in an institution (hospital/prison) or at home. Nearly half of the Bridgewater sample (48.8 percent) preferred to be in an institution, while very few of the Chester sample (6.5 percent) wanted to be in an

institution. As for the Chicago sample, some interpretation of the data is necessary. The 57 percent who reported they preferred to be in an institution may have meant they liked coming to the Isaac Ray Center for psychiatric treatment.

In Table 2, the results of testing the TDMHMR study prediction equation on the three samples are reported. In the Bridgewater sample, five patients were predicted to be in the not dangerous group, with three patients (60 percent) correctly classified according to clinicians' judgments. Thirty-three patients were predicted to be in the dangerous group, with 22 individuals correctly classified (66 percent) according to clinicians' judgments. In the Bridgewater sample, then, a total of 67 percent of the patients were correctly classified into the dangerous and not dangerous groups.

In the Chicago sample, 18 patients were predicted to be in the not dangerous group, with nine patients correctly classified (50 percent) according to clinicians' judgments. Two patients were predicted to be in the dangerous group, with one patient (50 percent) correctly classified according to clinicians' judgments. In the Chicago sample, a total of 50 percent of the patients were correctly classified into the dangerous and not dangerous groups.

In the Chester sample, 13 patients were predicted to be in the not dangerous group, with six correctly classified (46 percent) according to clinicians' judgments. Eighteen patients were predicted to be in the dangerous group, with 12 patients correctly classified (67 percent) according to clinicians' judgments. For the Chester sample, then, a total of 58 percent of the patients were correctly classified into the dangerous and not dangerous groups.

Only the Bridgewater sample was large enough to create a new discriminate function equation once the original TDMHMR discriminate function equation was tested. Results are reported in Table 3. Three variables were identified in the prediction equation in the following order: Buss Durkee Verbal Aggression Scale, age of the patient at admission, and fighting behavior within the past six months.

period. Twelve patients were correctly classified into the not dangerous group and 18 patients were correctly classified into the dangerous patient group.

In addition to the testing of the TDMHMR discriminate function equation on the Bridgewater, Chicago, and Chester samples, other comparisons were made for each sample. Means and standard deviations for the eight Buss Durkee Inventory scales are presented in Table 4. Table 5 presents means for Buss Durkee scales for the two TDMHMR samples. The means and standard deviations for the original standardized sample of college students, as reported by Arnold H. Buss (1957), is presented in Table 6. Initial examination of the three sample studies along with the two Texas studies indicates a range of mean scores on each scale to be as follows: Verbal Scale: 4.6 to 8.7; Guilt Scale: 4.1 to 5.5; Suspicion Scale: 3.0 to 6.8; Resentment Scale: 2.5 to 4.8; Irritability Scale: 3.7 to 5.5; Indirect Scale: 2.6 to 5.1; Assault Scale: 3.0 to 5.3; Negativism Scale: 1.9 to 3.3. In comparing the ranges of mean scores on the above studies with the original standardized group of college males indicates the patient groups have a slight increase in mean scores on all the Buss Durkee scales except the Irritability Scale. The results, however, do not suggest a trend. In the TDMHMR study, the Buss Durkee Inventory was significant in producing a stepwise discriminate function equation. Differences in individual scales, which did not always go in the expected direction, were clinically noninterpretable.

Comparisons were also made on the HIT variables for the Bridgewater, Chicago, and Chester samples. Means and standard deviations for each HIT variable are reported for the total samples (dangerous and not dangerous groups combined) in Table 7. In order to provide a convenient comparison, means of HIT variables in the original TDMHMR study (N=269) and for the TDMHMR replication sample (N=135) are given in Tables 8 and 9. Means here are reported for the total samples, as well as for the dangerous and not dangerous groups. Initial examination of HIT mean scale scores for the Bridgewater, Chicago, and Chester samples, suggest only

slight differences between the HIT mean scale scores in the three samples. The Chicago sample has the lowest Pathognomic Verbalization Scale score, as might be expected for an outpatient group. Furthermore, the three sample studies also closely resemble the mean scale scores for the two Texas studies. Further analyses are necessary to test the intercorrelations between HIT variables on all five samples.

Because the Bridgewater sample has a larger number of patients than the Chicago and Chester samples, additional analyses were carried out with the HIT. Table 10 reports the mean scale scores of the Bridgewater dangerous patient group and compares the mean values for the dangerous patient groups in the original Texas study (N of dangerous patient group = 106) and for the Texas replication study (N. of dangerous group = 46). There are some slight differences in the Bridgewater HIT mean scores from the range of scaled scores determined in the two Texas studies. For example, Bridgewater has lower mean scores on Anxiety, Hostility, and Movement scales, and slightly higher mean scores on Human and Animal Scales. A factor analysis of the Bridgewater sample (Table 11) was performed, which yielded seven factors. The variables loading on each factor were: Factor 1: Integration, Popular, Movement; Factor 2: Hostility, Anxiety, Pathognomic Verbalization; Factor 3: Anatomy, Penetration; Factor 4: Location, Animal; Factor 5: Shading, Rejection, Reaction Time; Factor 6: Sex, Balance, Color; Factor 7: Abstract. The factorial structure of the Bridgewater sample is different from the factorial structures of the two Texas samples.

Discussion

The major purpose of the TDMHR project was to attempt to develop an actuarial model which would predict or refine subjective judgments of dangerousness. The predictive validity of such judgments are to be examined in the next stage of the study. In the present phase, judgments are simply used as a criterion against which to test an actuarial model based on demographic and psychological test data.

The Bridgewater, Chicago, and Chester studies were conducted to test the prediction model developed in the Texas study of maximum security mental patients and to examine how maximum security patients in other states compare with Texas. The results of the Texas study of maximum security mental patients warranted replication for several reasons. Certain variables on the Holtzman Inkblot Technique, the Buss Durkee Inventory, and a few demographic variables, were able to predict with 80 percent accuract, clinicians' judgments of dangerousness. Furthermore, the Holtzman Inkblot Technique particularly proved to be valuable in developing the prediction model.

At the same time, a second study of Texas maximum security patients was being conducted to test the reliability of the prediction model, the three studies with maximum security patients in Massachusetts, Illinois, and outpatients in Chicago were initiated to test the prediction model. In the Texas replication study, the criteria developed on the initial sample of Texas maximum security patients failed to maintain their predictive ability with a cross-validation sample. Reasons for the failure include the unreliability of the criterion, random factors in the statistical model, and changes in the subject population. Similarly, as expected, the Bridgewater, Chicago, and Chester samples also failed to maintain the predictive ability established in the initial Texas study.

Results of the Bridgewater, Chicago, and Chester studies, however, do provide important information regarding maximum security mental patients, as the present project is possibly the most extensive study, to date, on such patients. Results of the Holtzman Inkblot Technique indicate a marked similarity between maximum security patients in Texas, Massachusetts, and Illinois. In effect, what has been accomplished is that the Holtzman Inkblot Technique - a psychological instrument with a high degree of inter-scorer reliability and an instrument with a number of large standardization samples - has now been standardized on a sample of some 500 maximum security mental patients. A data base has been established for future

psychological comparisons.

At the 1979 American Psychology and Law Conference, for example, it was observed that the Texas Dangerousness Project tends to contradict theories about "criminally insane" patients as reported in the work of Samenov and based upon his study of some 250 St. Elizabeth Hospital (Washington, D.C.) maximum security patients. Although the present project had a different purpose, we may address some of the issues raised by Samenov, with the large amount of data accumulated.

The most obvious implication of the project findings is that research should focus on validation of actuarial and subjective judgments of dangerousness against behavioral data, for the two techniques show little systematic relationship to each other. A partial investigation of the relationship of both actuarial and subjective judgments to post confinement history is underway and will be presented in a separate report. Methodological problems in this area are formidable and a series of studies are required before any determination can be made regarding the efficacy of any judgment method, but the importance of the social issues involved make it well worth the effort.

Results of Texas Youth Council Sample (TYC)

The general characteristics of the TYC sample are presented in Tables 12 through 15. The Texas youth offender group (N=83) of males ranged in age from 13 through 16 years, with a mean age of 15.2 years. Less than 14 percent of the group were arrested (Table 13) for violent crimes (2 for murder, 1 for rape, 4 for robbery, 4 for aggravated assault). The remaining group (86 percent) was charged with non-violent crimes. The most frequent arrests in the non-violent crime category were 24 arrested for burglary (29 percent), five arrested for larceny (six percent), four arrested for motor vehicle theft (4.8 percent), while 32 were arrested for other minor offenses (38.6 percent).

Slightly more than one-third of the youth offenders (37.3 percent) reported fighting behavior (Table 14) within the past six month period, while 19.3 percent

reported frequent fighting within the same period of time. Self reports of threats to commit suicide (Table 15) showed only a few individuals (3.6 percent) threatened to commit suicide during their childhood years (0-12), but increased to 9.6 percent in adolescent years. According to the self reports on fighting and suicide threats, then, approximately 10 percent of the group manifested some signs of serious psychological problems.

The youth offender group's attitudes toward aggressiveness are reported (Table 16) in the mean and standard deviation Buss Durkee Inventory scores. Highest mean scores were on the Guilt scale (6.8), Verbal scale (6.4), Suspicion scale (5.8) and Assault scale (5.7). There are no comparative norms for the Buss Durkee Inventory on which to examine the TYC youth offender group. A comparison of these findings, however, with the five adult male maximum security patient groups in the Texas Dangerousness Project, raises some interesting considerations. The youth offender group means fall within the range of adult means on all the Buss Durkee scales, except that for the Guilt Scale and Assault Scale the youth offender group exceeds the ranges for the adult male maximum security patient group. Results of the Buss Durkee Inventory suggest that the youth offender group tends to, at least, be more expressive about aggressive attitudes than the adult maximum security patient groups.

The mean scores and standard deviations of the 83 TYC offenders on the 22 HIT variables are presented in Table 17, along with the scores reported by Megargee (1965) on a normative study of 75 California juvenile delinquents. The Megargee study compares a juvenile delinquent sample with two original Holtzman (1961) groups of non-delinquent youth: namely, a sample of 197 seventh graders and a sample of 72 eleventh graders. The Megargee sample ranged in age from 11.1 to 17.9 years, with a mean age of 15.5. His sample, therefore, overlapped the two Holtzman samples, in which the seventh and eleventh grade groups ranged in age from 12 to 14 and from 16.5 to 17.5 respectively.

The general pattern of mean scores that emerged in the TYC study is remarkably similar to the pattern found in the Megargee study. Megargee had found that for the delinquent groups, HIT mean scores were significantly lower than the Holtzman eleventh grade samples, and either identical to or lower than the seventh grade Holtzman sample. The only exception to the pattern were Megargee group scores for Rejection and Anatomy, which were significantly higher than the Holtzman eleventh grade group and slightly higher than the Holtzman seventh grade group. In the TYC study, the mean scores on the HIT variables are also lower than the Holtzman eleventh grade and seventh grade samples, except for Reaction Time, Integration, Human, Anatomy, Location. Reaction time is slightly higher than the eleventh grade group, but below the seventh grade group. Integration is slightly higher than the eleventh grade group, and nearly twice as high as the seventh grade group and the Megargee group. Human is much lower than the eleventh grade group and slightly higher than the seventh grade group. Anatomy is slightly higher than the eleventh grade group, but much higher than the seventh grade group and the Megargee group. Location is lower than the eleventh grade group but above the seventh grade group and the Megargee group.

Two factor analyses were performed on the TYC group. Results of a factor analysis for the total group (N=83) are presented in Table 18. Another factor analysis was performed for a sub group in the TYC sample (Table 19) youth offenders (N=70) judged as "not dangerous" by three staff evaluations. For the total TYC group seven factors were extracted. Loadings on Factor I were: Hostility (HS), Movement (M), Anxiety (Ax), Integration (I), and Anatomy (At). Loadings on Factor II were: Color (C), Form Definiteness (FD), Abstract (Ab), and Shading (Sh). Loadings on Factor III were Form Appropriateness (Fa) and Pathognomic Verbalization (V). The fourth factor loadings included: Anatomy (At), Penetration (Pn), Rejection (Rj), and Reaction time (Rt). Loadings on Factor V were Balance (B), and Sex (Sx). Factor VI loadings were on Space (S) and Location (L). Factor VII loadings were Human (H), Barrier (Br),

Popular (P), and a substantial loading for Rejection (Rj). The percentage of variance extracted by seven roots was 74.42.

Just as there were marked similarities in the HIT mean scores between the TYC and Megargee samples, the factorial structure of the TYC sample also resembles the Megargee group. Mean ages of the two groups are nearly identical (15.2 for TYC and 15.5 for the Megargee group), but the TYC sample has a shorter age range (13.0 to 16.0) than the Megargee study (11.1 to 17.9). As in the Megargee study, the TYC sample also overlaps both the seventh and eleventh grade samples in Holtzman's work (1961).

Factor I in the TYC sample resembles the Megargee and the Holtzman samples in that Movement and Integration are principal loadings on this factor, and as in the Megargee study, Anxiety and Hostility also had high loadings on this factor. In the TYC sample, however, 16.9 percent of the variance was accounted for in Factor I, while 23 percent of the variance in Factor I was accounted for in Factor I of the Megargee study.

Factor II also has proved to be an excellent match for Factor II in both the Megargee and Holtzman studies, with Form Definiteness, Color, and Shading as principal loadings.

Factor III has some slight resemblance to both the Megargee and Holtzman studies, with Pathognomic Verbalization as a principal loading, but other variables differ in the TYC sample from both the Megargee and Holtzman Factor III variables.

Factor IV in the TYC sample somewhat resembles Factor V in both Megargee and Holtzman studies. Reaction time and Rejection load heavily on this Factor. Anatomy and Penetration are the principal loadings, however, on this factor in the TYC study. Animal variable has unusual loadings in the TYC study, in that the variable loads almost equally on five of the seven factors (including Factor IV).

Factor VI in the TYC sample bears only a slight resemblance to previous studies. It is characterized by Location (.66) and so bears some resemblance to Factor IV in

the Megargee and Holtzman studies.

Factors V and VII in the TYC study differ in construction from Factor VI in the Megargee and Holtzman samples. The factor analysis of the TYC not dangerous group (Table 19) is identical with the factor analysis of the total TYC group (Table 18), except that Popular loads on Factor I.

In general, then, the patterns of HIT factor loadings in the TYC study are supportive to the results of the Megargee normative sample of juvenile delinquents, and provide additional evidence of meaningful constructs for the personality assessments of youth offenders.

The final data analyses in the TYC study included the testing of the stepwise discriminate function equation as determined in the TDMHMR Dangerousness Project. According to staff judgments, 70 subjects were judged as not dangerous. In applying the discriminate function equation, 35 of the not dangerous group (50 percent) were correctly classified according to staff judgments, 12 subjects were judged as dangerous, while five subjects of the dangerous group (42 percent) were correctly classified. A total of 49 percent was correctly classified. A new stepwise discriminate function equation was developed for the TYC group (Table 20). The variables contributing to the function were in the following order: HIT variables of Space, Balance, Shading, Barrier, Penetration, and the Buss Durkee variables of Guilt and Indirect Aggression. An examination of the HIT variables which provided the prediction model shows that it does not resemble any pattern found in the work of others, for example, (Holtzman, et al, 1961; Megargee, 1965).

Discussion

It was not expected that the prediction model of dangerousness determined in the TDMHMR study would be a reliable measure of staff judgment predictions of dangerousness in the TYC sample. The study was initiated because TYC officials share many similar responsibilities and concerns with TDMHMR system regarding

dangerousness. Both systems are expected to make very important decisions regarding clients based upon perceptions of client dangerousness.

As in the other studies cited in the present report (Bridgewater, Chester, Chicago), the TYC study was also initiated after the original TDMHMR study (N=269), in which the prediction equation was developed and before the TDMHMR replication study (N=135), in which it was found the equation did not hold up. The model did not hold up because of changes in the population sampled, unreliability of the criterion, and random factors in the prediction variables. Particularly, however, there are vast differences in the characteristics of the population of Texas maximum security patients and the population of TYC offenders, such as age, psychiatric/psychological differences, educational level, work experience, and criminal histories. All of these differences, of course, make it impossible to compare the two groups.

The most important observations concern the approach to determining dangerousness of TYC offenders. The problems of doing so for both the TYC and mental health systems, are similar. The low base rate of dangerous behavior (perhaps reflected in the TYC staff judgments of dangerousness) makes it extremely difficult to develop a prediction model, unless a study includes a large sample of subjects. Secondly, the same general approach to resolving the problem of predicting dangerousness, as employed in the TDMHMR project, is applicable to TYC. What is needed is an actuarial approach to prediction. Such a study may begin with staff predictions of dangerousness, but such judgments must be refined through validation studies, using also along with staff judgments, psychological testing and socio-demographic measures, and especially measures of dangerous behavior after release through such information as criminal arrest histories. TYC is fortunate to have already built into its system the capability of developing a data base on clients to assist staff in determining the probability of client dangerousness.

Regarding psychological instruments used in the prediction equation, the Holtzman Inkblot Technique, an instrument with particularly high inter-scorer reliability, has again proven to be an excellent psychological tool. For the results of the study, support the work of Megargee on juvenile offenders, as well as the original work of Holtzman, providing an excellent data base for studying psychological characteristics of potentially violent juvenile offenders.

Finally, an exploratory study of this nature is important for its implication on future research. Such research should focus on the validation of actuarial and subjective judgments of dangerousness against behavioral data. Although the methodological difficulties in this area are formidable, the importance of the social issues involved makes it well worthwhile.

References

Holtzman, Wayne H., Thorpe, Joseph S., Swartz, Jon D., Herron, E.W., Inkblot Perception and Personality: Holtzman Inkblot Technique, University of Texas Press, 1961.

Megargee, Edwin, "The Performance of Juvenile Delinquents on the Holtzman Inkblot Technique: A Normative Study," Journal of Projective Techniques, v. 29, 1965.

TABLE I

General Characteristics of Bridgewater, Chester, and Isaac Ray Samples

	Bridgewater		Isaac Ray Center		Chester	
	Frequency (N=39)	%	Frequency (N=21)	%	Frequency (N=31)	%
Violent Crime	29	74.4	13	65.0	13	41.9
Other Crime	9	23.1	7	35.0	18	58.1
<u>Fighting</u>						
Never	0				2	6.5
Rarely	13	33.3	18	85.7	9	29.0
Frequently	26	66.7	3	14.3	13	64.5
<u>Placement</u>						
Hosp./Prison	19	48.8	12	57.1	2	6.5
Home	20	51.3	9	42.9	29	93.5
<u>Suicide Attempt</u>						
Yes	15	38.5	4	19.0		
No	22	56.4	17	81.0		
	\bar{M}	\bar{SD}	\bar{M}	\bar{SD}	\bar{M}	\bar{SD}
Age	28.0	10.9	33.5	11.5	25.9	14.3

TABLE 2

Clinicians' Predictions of Patient Dangerousness for
Bridgewater (N=39), Chicago (N=21), and Chester (N=31) Samples

	Bridgewater	Chicago	Chester
Not dangerous group	5	18	13
Correctly classified	3 (60%)	9 (50%)	6 (48%)
Dangerous group	33	2	18
Correctly classified	22 (66%)	1 (50%)	12 (67%)
Total correctly classified	67%	50%	58%

TABLE 3

Discriminate Function Equation for Bridgewater Sample

Variable	Function Not Dangerous	Dangerous
Buss: Verbal	1.59837	2.40433
Age	0.34483	0.52524
Fighting	24.75482	37.70319
<u>Constant:</u>	-25.71059	-58.42174

Number of Cases Classified Into Group

<u>Group</u>	<u>Not Dangerous</u>	<u>Dangerous</u>
Not dangerous	12	1
Dangerous	0	18

TABLE 4

Buss Durkee Means and Standard Deviations for
Bridgewater, Chicago, and Chester Samples

Buss-Dur	Bridgewater (N=39)		Chicago (N=21)		Chester (N=31)	
	\bar{M}	SD	\bar{M}	SD	\bar{M}	SD
Verbal	6.7	2.7	4.6	2.3	8.7	3.3
Guilt	5.4	2.2	4.7	2.2	4.1	3.0
Suspicion	4.8	2.5	3.0	2.0	6.8	2.6
Resentment	3.3	1.9	2.5	1.8	4.8	2.2
Irritability	5.5	2.9	3.7	2.6	6.2	3.1
Indirect	3.8	2.4	2.6	2.3	5.1	2.9
Assault	4.7	2.7	3.0	2.0	5.3	2.9
Negativism	2.2	1.4	1.9	1.1	3.3	1.6

TABLE 5

Buss Durkee Means for TDMHR Study and Replication Sample

Buss-Dur	Texas MSU Original Sample Not Dangerous		Texas MSU Original Sample Dangerous	
	\bar{M}	(N=160)	\bar{M}	(N=110)
Verbal	6.4		5.8	
Guilt	5.1		5.1	
Suspicion	4.8		5.3	
Resentment	3.2		3.3	
Irritability	4.7		4.2	
Indirect	3.6		3.4	
Assault	4.7		4.7	
Negativism	2.1		2.5	

Buss-Dur	Texas MSU Replication Sample Not Dangerous		Texas MSU Replication Sample Dangerous	
	\bar{M}	(N=84)	\bar{M}	(N=45)
Verbal	5.6		5.9	
Guilt	5.5		4.8	
Suspicion	4.3		4.8	
Resentment	3.3		3.3	
Irritability	3.7		4.2	
Indirect	3.0		3.5	
Assault	3.8		4.3	
Negativism	2.0		1.9	

TABLE 6

Means and Standard Deviations for
College Men and Women

Variable	Men		No. Items	Women	
	Mean	SD		Mean	SD
Assault	5.07	2.48	10	3.27	2.31
Indirect Hostility	4.47	2.23	9	5.17	1.96
Irritability	5.94	2.65	11	6.14	2.78
Negativism	2.19	1.34	5	2.30	1.20
Resentment	2.26	1.89	8	1.78	1.62
Suspicion	3.33	2.07	10	2.26	1.81
Verbal Hostility	7.61	2.74	13	6.82	2.59
Guilt	5.34	1.88	9	4.41	2.31
Total Hostility	30.87	10.24	66	27.74	8.75

TABLE 7

Means and Standard Deviations of HIT Variables
for Bridgewater, Chicago, and Chester Samples

HIT Vari- ables	Bridgewater (N=39)		Chicago (N=21)		Chester (N=31)	
	\bar{M}	\overline{SD}	\bar{M}	\overline{SD}	\bar{M}	\overline{SD}
FD	79.4	13.4	75.8	15.9	70.7	19.9
FA	28.3	6.6	34.2	7.9	35.0	8.0
RT	14.9	11.0	23.3	11.2	16.6	10.3
Rj	8.7	9.0	5.2	8.1	12.5	12.1
Sp	2.5	1.9	1.0	1.2	.2	.4
BAL	.1	.5	.04	.2	.03	.2
C	5.9	4.2	14.5	12.4	11.4	14.6
Sh	4.5	3.9	5.0	3.6	1.2	1.7
M	16.5	12.5	19.0	12.0	13.0	10.5
I	3.5	3.1	3.6	3.5	2.3	2.3
H	21.4	10.0	18.9	9.8	13.9	10.3
A	22.9	9.9	26.0	11.0	19.8	11.5
At	3.1	3.9	3.5	2.6	2.6	3.3
Sx	.77	1.6	1.1	2.7	1.3	2.9
Ab	.03	.2	.04	.2	.5	1.4
Ax	7.7	9.1	4.0	4.2	5.4	4.0
Hs	6.0	7.2	3.0	3.4	4.9	4.4
BR	1.6	1.7	1.0	1.1	1.0	1.1
Pn	1.6	1.6	2.2	3.0	.9	1.0
L	24.1	13.8	27.9	16.0	20.0	15.0
V	12.5	18.7	5.5	9.0	7.7	16.0
P	4.1	2.3	5.7	2.6	4.8	3.1

TABLE 8
Means and Standard Deviations of HIT Variables
in Original TDMHR Study

HIT Variables	Texas MSU Original Sample (N=269)		MSU Not Dangerous (N=163)		MSU Dangerous (N=106)	
	\bar{M}	\overline{SD}	\bar{M}	\overline{SD}	\bar{M}	\overline{SD}
FD	75.7		74.6	21.4	77.2	19.0
FA	31.9		32.2	11.0	31.4	9.2
RT	14.8		15.1	8.0	14.4	7.8
Rj	12.6		12.7	11.7	12.3	11.0
S	.7		.7	1.0	.7	.9
B	.7		.9	2.6	.5	.8
C	10.5		9.7	9.3	11.8	12.4
Sh	6.2		6.0	7.2	6.3	4.9
M	17.0		15.5	13.8	19.3	14.4
I	4.8		4.8	4.3	4.9	4.0
H	14.6		14.4	10.1	15.0	10.1
AN	18.5		18.2	11.3	19.0	9.9
At	4.5		4.9	8.8	3.9	5.8
Sx	1.1		1.0	2.3	1.2	10.0
Ab	.7		.6	2.0	.9	2.1
Ax	8.2		7.2	7.7	10.0	9.0
Hs	6.1		5.0	5.0	7.8	8.1
BR	2.9		2.8	2.7	3.1	2.8
Pn	4.2		4.5	5.3	3.8	3.1
L	19.6		19.0	12.3	20.6	13.5
V	10.6		9.2	12.4	12.7	16.9
P	5.2		5.4	3.4	4.9	2.9

TABLE 9
Means and Standard Deviations of HIT variables
in Original TDMHR Study

HIT Variables	Texas MSU Replication Sample (N=135)		Texas MSU Not Dangerous (N=89)		Texas MSU Dangerous (N=46)	
	\bar{M}	\overline{SD}	\bar{M}	\overline{SD}	\bar{M}	\overline{SD}
FD	80.9	32.9	80.4	17.7	81.8	50.4
FA	34.8	16.0	34.0	10.0	36.2	23.5
RT	15.5	10.7	14.9	7.5	16.6	14.1
Rj	7.7	9.2	8.2	9.6	6.8	8.2
S	.5	1.0	.5	.9	.5	1.0
B	.4	.8	.5	.8	.3	.8
C	14.3	11.2	13.3	10.6	16.3	11.8
Sh	8.6	6.7	7.3	6.1	10.2	7.3
M	19.8	16.7	18.6	13.3	22.0	21.4
I	7.0	5.1	6.8	4.7	7.4	5.7
H	17.4	12.4	16.4	11.0	19.2	14.5
AN	20.5	11.4	21.2	11.4	19.2	11.2
At	5.7	8.1	5.3	7.7	6.2	8.8
Sx	2.9	8.4	2.7	7.7	3.1	9.4
Ab	.6	2.2	.3	.9	1.1	3.5
Ax	11.0	10.5	9.9	7.8	13.2	14.0
Hs	7.6	8.2	6.8	6.5	9.4	10.5
BR	3.2	3.5	3.2	3.4	3.2	3.5
Pn	4.6	4.7	4.0	4.4	5.3	5.1
L	20.1	12.0	20.5	10.8	19.4	14.0
V	10.4	15.8	9.5	12.6	12.2	20.3
P	6.0	3.0	6.0	3.0	5.8	3.3

TABLE 10

Means for Patients Judged as Dangerous
in Original TDMHR Sample, TDMHR Replication Sample
and Bridgewater Sample

HIT Vari- ables	Texas MSU (Original) (N=106)	Texas MSU (Replication) (N=46)	Bridgewater
FD	77.2	81.8	79.4
FA	31.4	36.2	27.8
RT	14.4	16.6	13.9
Rj	12.3	6.8	8.6
S	.7	.5	2.3
B	.5	.3	.1
C	11.8	16.3	6.2
Sh	6.3	10.2	4.9
M	19.3	22.0	16.2
I	4.9	7.4	3.5
H	15.0	19.2	20.9
AN	19.0	19.2	22.5
At	3.9	6.2	3.3
Sx	1.2	3.1	.7
Ab	.9	1.1	.03
Ax	10.0	13.2	7.7
Hs	7.8	9.4	5.9
Br	3.1	3.2	1.6
Pn	3.8	5.3	1.7
L	20.6	19.4	23.6
V	12.7	12.2	13.4
P	4.9	5.8	4.0

TABLE 11

Factor Analysis of Bridgewater Sample (N=39)

Vari- able	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
FD	0.4649	-0.3012	0.0021	0.5221	0.3234	0.1776	-0.0486
FA	0.3418	0.5946	-0.0171	0.4083	0.0875	-0.2241	0.4037
RT	-0.1009	0.4551	-0.2702	0.2208	0.6355	-0.0319	-0.2258
Rj	-0.3302	0.3817	-0.0896	-0.3751	0.6497	0.0441	0.2792
S	-0.1006	-0.5469	0.1595	0.2623	-0.2566	0.0087	-0.1036
B	0.0710	0.0436	-0.1140	-0.3009	0.1241	0.6880	-0.1336
C	0.0916	-0.2038	0.2956	-0.2781	-0.3974	-0.5948	-0.2328
Sh	0.0729	0.1278	-0.0109	0.0393	-0.8702	-0.0287	-0.0557
M	0.7510	-0.4723	0.0301	0.0354	-0.2566	-0.0914	0.0194
I	0.9244	0.0086	-0.0918	-0.0444	-0.1222	-0.0676	-0.0602
H	0.4368	-0.5473	0.3343	0.4190	-0.0606	-0.0793	-0.0266
AN	0.3983	-0.0303	-0.0323	0.6984	-0.3227	-0.0830	-0.1864
At	-0.0744	-0.0980	0.9200	-0.0869	-0.0590	0.0080	0.0239
Sx	0.0492	-0.2245	0.2789	0.1190	-0.2224	0.6923	0.0359
Ab	-0.0747	0.0937	0.1114	-0.0484	0.0791	0.0053	0.8333
Ax	0.1645	-0.8942	0.0048	0.0862	0.1096	-0.0521	-0.0104
Hs	0.1997	-0.8720	-0.0175	0.1680	0.0926	0.0006	0.0313
Br	-0.0568	-0.0582	-0.1058	0.6386	-0.1431	0.0084	0.4683
Pn	-0.0270	0.0998	0.8832	-0.0049	-0.0526	0.0150	0.0699
L	0.0502	-0.1111	-0.0575	0.8630	0.1158	-0.0373	-0.0393
V	-0.3840	-0.6873	-0.2018	-0.1171	-0.2369	0.1505	-0.1437
P	0.8527	0.1428	-0.0036	0.2399	0.0200	0.2066	-0.0560

TABLE 12

Age at Admission to TYC Placement Center (N=83)

Age	Frequency	Percentage
13	2	2.4
14	17	20.5
15	35	42.2
16	29	34.9
Mean = 15.2		

TABLE 13

Arrest Regarding Admission to TYC Placement Center

Variable	Frequency	Percentage
Murder	2	2.4
Rape	1	1.2
Robbery	4	4.8
Aggravated Assault	4	4.8
Burglary	24	29.0
Larceny	5	6.0
Motor Vehicle Theft	4	4.8
Simple Assault	2	2.4
Arson	2	2.4
Other Sex Offense	1	1.2
Narcotic Drug Law	1	1.2
Liquor Law	1	1.2
Other Offenses	32	38.6

TABLE 14
 Self Report of Fighting Behavior During Past Six Months
 (N=83)

Variable	Frequency	Percentage
Never	31	37.3
Rarely	36	43.4
Frequently	16	19.3

TABLE 15
 Self Report of Threats to Commit Suicide in
 Childhood (0-12) and Adolescence (13-18)
 (N=83)

Variable	Frequency	Percentage
<u>Childhood Years</u>		
Yes	3	3.6
No	79	95.2
Unknown	1	1.2
<u>Adolescent Years</u>		
Yes	8	9.6
No	74	89.2
Unknown	1	1.2

TABLE 16

Buss-Durkee Inventory Means and Standard Deviations
for TYC Samples (N=83)

Buss-Durkee Scales	Means	Standard Deviations
Verbal	6.4	2.6
Guilt	6.8	1.9
Suspicion	5.8	2.2
Resentment	4.1	2.0
Irritability	4.4	2.3
Indirect	3.4	2.1
Assault	5.7	2.3
Negativism	2.5	1.3

TABLE 17

HIT Means and Standard Deviations for
TYC Group (N=83) and Megargee Group (N=75)

Variable	TYC Group		Megargee Group	
	Mean	Standard Deviation	Mean	Standard Deviation
FD	80.4	13.4	13.8	17.1
FA	36.8	7.2	40.6	6.2
RT	19.1	10.2	17.5	10.9
Rj	9.7	9.8	9.8	11.0
Sp	1.0	1.1	.3	.6
B	.1	.3	.2	.5
C	9.4	7.7	12.6	11.9
Sh	6.8	4.5	7.5	4.9
M	18.8	11.9	22.1	14.3
I	6.3	4.3	3.2	2.5
H	15.7	8.0	12.4	7.5
An	24.5	9.4	19.1	9.5
At	2.7	3.1	3.2	3.4
Sx	.1	.3	.2	.8
Ab	.1	.5	.1	.5
Ax	6.8	5.0	7.3	5.1
Hs	4.9	3.6	8.2	5.6
BR	2.1	1.8	4.2	3.3
Pn	2.2	2.0	3.0	3.0
L	33.9	15.5	20.7	10.9
V	2.4	3.5	2.5	2.9
P	6.5	3.0	5.9	3.6

TABLE 18

HIT Factor Analysis for Total TYC Sample (N=83)

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
FD	0.4456	0.6962	-0.1178	0.0712	-0.0160	0.0086	-0.3329
FA	-0.0750	-0.0301	0.7856	0.3611	0.1464	0.0325	-0.1127
RT	-0.0999	0.1666	0.3010	0.5149	-0.0316	-0.0071	0.3060
R	-0.3369	0.1037	0.0390	0.5896	0.1132	-0.3935	0.5110
S	-0.0616	-0.0650	0.1243	0.1526	0.0922	0.7582	-0.0117
B	0.1845	0.0445	-0.1122	-0.0517	0.7457	0.1972	0.1704
C	0.2786	-0.7969	-0.0712	-0.1878	0.0658	0.0014	-0.1327
Sh	0.2461	-0.6426	-0.0091	-0.4467	0.2402	0.0579	-0.1232
M	0.6197	-0.0406	-0.0734	-0.0474	0.0789	-0.1941	-0.3908
I	0.6815	0.1558	0.1090	-0.1347	0.1434	-0.1691	-0.4712
H	0.3005	0.0535	0.1433	0.0169	-0.1279	0.0535	-0.8280
AN	0.4073	0.3570	-0.1761	-0.3792	-0.0957	0.3911	-0.3615
At	-0.1433	-0.1157	-0.0887	-0.8554	-0.0293	-0.0134	0.0852
Sx	-0.0929	-0.0932	0.1573	0.0078	0.7016	-0.1635	-0.1785
Ab	0.3931	-0.4771	0.0169	0.1031	-0.3013	-0.0911	0.0655
Ax	0.7730	-0.2039	-0.1782	-0.1970	0.0142	0.1447	-0.1843
Hs	0.8636	-0.2105	-0.1557	0.0368	-0.0010	0.0611	-0.0618
Br	0.0392	-0.0625	-0.2854	0.0049	0.1276	0.1820	-0.7830
Pn	0.3361	-0.0660	0.0939	-0.7418	0.2214	-0.3427	0.0597
L	-0.0324	0.1624	0.4869	-0.1348	-0.1457	0.6601	-0.2311
V	0.1069	0.0477	-0.7700	0.0331	0.0086	-0.1810	-0.0954
P	0.4135	0.0708	0.2328	-0.1393	0.0408	-0.0874	-0.7376

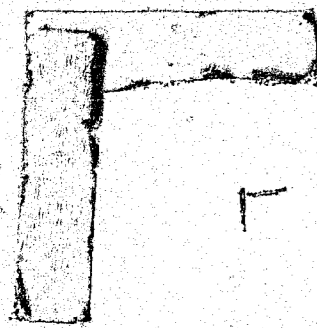
TABLE 19

HIT Factor Analysis for Not Dangerous TYC Group (N=70)

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
FD	0.6060	-0.5898	-0.2524	0.0710	0.0207	0.0613	-0.0980
FA	-0.0426	0.0158	0.8416	0.2011	0.1437	0.0872	0.0329
RT	-0.2183	-0.1161	0.1965	0.6269	0.0245	0.0799	0.1266
R	-0.5228	-0.1081	0.0532	0.5926	0.1436	-0.3648	0.3173
S	-0.0988	0.0601	0.1178	0.0778	0.1054	0.8266	0.0036
B	0.0714	-0.0250	-0.1611	-0.0840	0.7704	0.1103	0.1438
C	0.1026	0.8134	-0.0275	-0.2753	0.0510	-0.0130	-0.1514
Sh	0.1256	0.6230	0.0102	-0.5211	0.2614	0.0430	-0.0736
M	0.8732	0.2260	-0.1704	0.0386	0.0918	-0.1167	-0.1029
I	0.7942	-0.0565	0.0301	-0.2050	0.1669	-0.1565	-0.1193
H	0.6739	0.0102	-0.1064	-0.1270	-0.1702	0.0328	-0.5593
AN	0.5279	-0.3231	-0.2258	-0.3550	-0.1342	0.3680	-0.1525
At	-0.0484	0.0971	-0.0726	-0.8046	-0.0234	0.1364	0.0279
Sx	0.0000	0.0678	0.2732	0.0840	0.6790	-0.0829	-0.2528
Ab	0.3167	0.5684	-0.0276	0.1290	-0.2487	-0.0519	0.2525
Ax	0.7220	0.3812	-0.2277	-0.1944	0.0570	0.1571	0.0816
Hs	0.6870	0.4645	-0.2882	0.0617	0.0702	0.1748	0.0715
Br	0.3680	0.0005	-0.2630	-0.0232	0.0963	0.0641	-0.7599
Pn	0.3410	0.1493	0.0716	-0.6557	0.3202	-0.2485	0.3053
L	0.1565	-0.2286	0.4164	-0.2620	-0.1198	0.6727	-0.1079
V	0.0922	-0.0085	-0.7849	-0.0570	0.0459	-0.1450	-0.0975
P	0.7729	-0.0140	0.1757	-0.2668	-0.0013	-0.0359	-0.3002

TABLE 20
 Discriminate Function Equation for TYC
 (N=82)

Variable	Function Not Dangerous (N=70)	Function Dangerous (N=12)
HIT Space	.7509	1.2144
Balance	-1.3383	-2.8988
Shading	.5051	.1976
Barrier	.4594	.7416
Penetration	-.0361	1.2226
Buss Guilt	2.1909	1.9359
Indirect	1.1036	1.3423
<u>Constant</u>		
	-12.4219	-14.3659



END