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PROGRAM FOR YOUNG OFFENDERS.

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PREDICTING THE OUTCOME OF A VOCATIONAL REHABILITATION
PROGRAM FOR YOUNG OFFENDERS

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JAMES A. WEST
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PREDICTING THE OUTCOME OF A VOCATIONAL REHABILITATION
PROGRAM FOR YOUNG OFFENDERS

APPROVED BY

P. T. Tash

G. D. Dupied

Mary Clare Petty

Leta P. Skelton

DISSERTATION COMMITTEE

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CHAPTER I

INTRODUCTION

Two factors are important in the formation of human groups: the first involves the direct or indirect selection of a leader or leaders, and the second concerns the acquisition of a code which will govern and guide behavior. The history of individual disregard for these factors is as old as the recorded history of man.

In primitive times, it was the custom for an individual to deal, at his own discretion, with offenses committed against him. This often resulted in retaliation which exceeded the original wrong. Later, individual retribution was no longer tolerated and deviate behavior became a public rather than a private matter whereby the state inflicted punishment on the offender.

Punishment by death was a frequently administered penalty. The death penalty was exacted in various ways including drawing and quartering, hanging, beheading, and burning. Mutilation, branding, flogging, and public humiliation,

through the use of stocks and pillories, were common methods of punishment for less serious crimes. Banishment was another attempted solution to the problem of crime. France sent many criminals to Devil's Island in French Guiana, whereas England shipped offenders to Australia and the North American colonies. Jails and workhouses were used only to detain accused persons and to confine vagrants and debtors.

Eventually, public reaction arose in America against the severity and inequality of these methods of exacting retribution, especially among the Quakers. Members of this group had frequently been victims of many of these forms of retribution because of their religious beliefs. As a result of this reaction, in the early 1790's many reforms were written into Pennsylvania law including imprisonment, instead of corporal or capital punishment, for all crimes except first degree murder. It was during this period that opposition to the death penalty developed and long-term imprisonment became more common. With more people confined in jails over longer periods of time, new concepts and philosophies of criminal treatment emerged. The concept of imprisonment as a method of producing penitence among prisoners led to the establishment of a system of state penitentiaries, which later was to develop into our present state and federal correctional systems.

Little improvement occurred in prison reform during the Nineteenth Century. One bright spot occurred in 1870, when the National Prison Association met in Cincinnati and

published its Declaration of Principles. In fact these principles were so advanced that they are still applicable today. Shortly thereafter, the New York State Reformatory at Elmira was established with a program aimed toward rehabilitation and reformation. A form of parole was used in that reformatory for the first time in the United States. Unfortunately, the program at Elmira did not accomplish what had originally been envisioned, and American corrections settled down once again into a long period of little progress.

In the 1930's there was some impetus for prison reform resulting from a complete reorganization in the federal prison system. Federal prisons were raised from the status of a backward, neglected, and at times corrupt system to one of eminence. During this same period, the United States Bureau of Prisons began to set standards for nationwide improved conditions.

Imprisonment of criminals is society's method of attempting to control and prevent undesirable behavior. Sutherland (1955) has identified four objectives of imprisonment:

(1) the changing or reformation of criminals to the extent they will commit no more crimes. (2) the protection of society by confining individuals so that they are prevented from committing criminal acts during the period of incarceration. (3) retribution. (4) the reduction of crime rate both by reforming criminals and deterring the general public from undesirable behavior punishable by imprisonment [p. 446].

As the knowledge and skills of the disciplines of sociology, psychology, and psychiatry increased, the

contradiction between the objectives of confinement became apparent. Prison officials, as well as other individuals interested in better treatment of inmates, recognized that if retribution became the primary objective of confinement, there would be little opportunity to implement reformation. Only in recent years have penologists adopted the belief that society is best protected against crime when rehabilitation is the major emphasis of the correctional process (Gilbert, 1963). Gilbert suggested the expansion of field services of the state vocational rehabilitation agencies to work with an increasing number of offenders at the levels of probation, prison, and parole.

As recently as 1954 (Public Law 565), laws were enacted which enabled state vocational rehabilitation agencies to provide services to public offenders incarcerated in state and federal prisons. It was not until 1961, however, that any state vocational rehabilitation agency developed a specific program of rehabilitation services for this disability group. Among the first states to undertake the challenge of determining the role of state vocational rehabilitation agencies in correctional rehabilitation was Oklahoma. In 1964, there were four research and demonstration projects funded by the Federal Vocational Rehabilitation Administration, whose major emphasis was the rehabilitation of public offenders (Grant, 1964). Two of the four projects were awarded to Oklahoma: one to Oklahoma State Reformatory, and the other

to the Oklahoma State Penitentiary. These initial projects stimulated and encouraged other states to develop similar programs. Presently, most state vocational rehabilitation agencies operate some type of program which is designed to provide vocational rehabilitation services to public offenders.

The word "rehabilitation" is somewhat of a semantic barrier for those involved in correctional work. Some penologists believe that public offenders cannot be rehabilitated, their contention being that once offenders are released, they will return to their former style of life. Newer trends encompassing more psychological and sociological principles are based on the belief that some inmates can be and have been rehabilitated. These modern theories stress the importance of pre-sentence investigations of offenders, social and psychological evaluations upon their entrance to an institution, and treatment or therapy for each individual inmate.

During the last several years, vocational rehabilitation of the public offender has been one of the prime objectives of penal authorities. One of the more recent innovations in correctional rehabilitation has been the development of cooperative programs between state vocational rehabilitation agencies and state correctional institutions. These programs range from rehabilitation of the physically disabled inmate to assignment of caseloads to field rehabilitation counselors and establishment of separate rehabilitation units within the penal institution. One of the first cooperative programs

between a state vocational rehabilitation agency and a state penal institution where a rehabilitation unit was established was developed at the Oklahoma State Reformatory in 1961. The present research is the result of studying the inmate population at that institution.

The Problem

The development of the concept of rehabilitation of the public offender has been a long and difficult process which is not yet complete. The implementation of cooperative programs of rehabilitation service between state vocational rehabilitation agencies and state correctional institutions has the potential of providing society one of its greatest opportunities to better cope with the problem of crime. Approaches presently utilized in these programs present some of the most innovative procedures in the history of correctional rehabilitation. However, it is not felt that these innovations have resulted in total effectiveness. As knowledge increases and procedures are improved, it is expected that current programs will be revised and refined.

Vocational rehabilitation of the public offender is new to both correctional institutions and vocational rehabilitation agencies. Neither of these organizations has sufficient services, staff, or funds to provide a comprehensive rehabilitation program to all inmates. If these resources were available, it is impractical to expect that a program could be developed that would meet the needs of all inmates.

As a result, program personnel are forced to select only those inmates who appear to have the best chance of being successfully rehabilitated.

That present subjective selection procedures are ineffectual is evidenced by the fact that 39 percent of the inmates who received services in the Oklahoma State Reformatory Vocational Rehabilitation Program between July 1, 1965, and June 30, 1968, returned to the institution. Not only is there a lack of consistent criteria for selection, but the present selection procedures are also expensive and time consuming.

The most critical issue that confronts the personnel working in all correctional rehabilitation programs, including those in Oklahoma, is the problem of predicting which inmates will be successful in their attempt at rehabilitation. The search for factors which are related to "rehabilitation success" is a common problem among penologists and rehabilitation officials nation wide.

Purpose of This Study

This study was undertaken as an attempt to develop a prediction table which could be used for determining the probability of rehabilitation success and/or failure for young public offenders incarcerated in the Oklahoma State Reformatory. The objectives of this study were:

1. To determine if implications found in the literature pertaining to factors which differentiate between success and/or failure of the public

offender could be related to vocational rehabilitation success and/or failure.

2. To determine whether such factors could be incorporated into a prediction table to predict the probability of rehabilitation success and/or failure of a given individual.
3. To test through cross-validation the accuracy of the constructed prediction table.

As far as is known to this investigator, no attempt has been made to relate those factors found in the literature which differentiated between successful and non-successful public offenders to a select group of inmates who have participated in a cooperative vocational rehabilitation program, nor has there been an attempt to incorporate such factors into a prediction table. It is expected that this study will make a significant contribution to the growing knowledge of prediction studies in the field of correctional rehabilitation.

Method of Approach

In order to arrive at the stated objectives, the following methods were employed:

1. Selection of successful and/or failure factors.

This objective was accomplished by reviewing the literature and selecting those factors which appeared to differentiate most between the successful and non-successful public offender. In the final selection of factors to be used, the three

major criteria as specified by Glueck and Glueck (1959) for selecting factors were taken into consideration. These criteria were: (a) From among the highly differentiating factors, five are selected, taking into consideration whether or not these factors are mutually exclusive. (b) If possible, those are selected that are relatively independent of one another. (c) The practical matter of the ease or difficulty of gathering the data by those who would be charged with the task is also considered in making the selection [p. 26].

2. Construction of the prediction table. The table was constructed by applying the method developed by Sheldon and Eleanor Glueck (1959) for constructing prediction tables to one-half of the inmate population which received vocational rehabilitation service and subsequently left the reformatory between July 1, 1965, and June 30, 1968.
3. Cross-validation of the prediction table. The remaining one-half of the population was used as a cross-validation to check the accuracy of the constructed prediction table.

Sources of Data Collection

The main sources used in this study were the records of the Oklahoma State Reformatory and the Oklahoma State Division of Vocational Rehabilitation. Secondary sources were books, periodicals, unpublished materials, and personal visits with people concerned with rehabilitation of the public offender.

Limitations of the Study

The major limitations of this study were:

1. The population included only those inmates who had been confined to the Oklahoma State Reformatory.
2. The population included only those inmates who had received vocational rehabilitation services and had left the reformatory during the time designated in the study.
3. Information was obtained only from the records of the Oklahoma State Reformatory and Oklahoma State Division of Vocational Rehabilitation; consequently, the information available was limited by the agencies' style of record keeping.
4. Recidivism rates were determined by a search of the reformatory records from July 1, 1965, through June 30, 1969. Recidivism occurring after the later date was not considered in this study. This procedure allowed for a maximum of four years and

a minimum of one year for the subjects to become recidivists.

Operational Definitions

Operational definitions used in this study were developed by the investigator for the purpose of carrying out this specific research. Definitions follow the criteria used by the State of Oklahoma in adjudicating a person as being a public offender and what it considers to be successful and non-successful rehabilitants.

Public Offender

Any person who had been convicted of a felony and sentenced by the courts of Oklahoma to be confined to the Oklahoma State Reformatory.

Successful Rehabilitation ("non-recidivists")

Those inmates who received services in the Oklahoma State Reformatory Vocational Rehabilitation Program and left the reformatory during the period from July 1, 1965 to June 30, 1968, and were not returned to the correctional institution.

Unsuccessful Rehabilitation ("recidivists")

Those inmates who received services in the Oklahoma State Reformatory Vocational Rehabilitation Program and left the Reformatory during the period from July 1, 1965 to

June 30, 1968, and were returned to the correctional institution.

Successful Factors

Those common factors chosen from review of the literature as being predictive of rehabilitation success.

Failure Factors

Those common factors chosen from review of the literature as being predictive of rehabilitation failure.

Table Construction Group (TC)

Those inmates chosen as subjects for the development of the prediction table.

Cross-Validation Group (CV)

Those persons chosen as subjects to check through cross-validation the accuracy of the constructed prediction table.

CHAPTER II

HISTORICAL REVIEW OF THE OKLAHOMA STATE REFORMATORY, THE OKLAHOMA DIVISION OF VOCATIONAL REHABILITA- TION, AND THE OKLAHOMA STATE REFORMATORY VOCATIONAL REHABILITATION PROGRAM

This chapter contains a historical review of the Oklahoma State Reformatory, the Oklahoma State Division of Vocational Rehabilitation, and the Oklahoma State Reformatory Vocational Rehabilitation Program. The order of presentation will be as listed above.

The Oklahoma State Reformatory

The Oklahoma State Reformatory was created by an Act of the Oklahoma Legislature in 1909. The act creating the institution made no stipulations as to the type of prisoners to be incarcerated, and as a result, the reformatory was not greatly different from the state penitentiary at McAlester. In the early part of 1949, the Governor appointed a prison committee to make an investigation of and recommendations for the penal program in the state. The recommendations of this committee were made in June 1949. For the next eleven years, gradual progress was made toward meeting the established

goals. Many of the recommendations, however, required extensive changes in other agencies of state government. The Pardon and Parole Board was a part-time board, meeting for two days every other month at the reformatory to consider requests for pardon or parole. The Parole and Probation Department was understaffed and inadequately financed. Thus, the completion of the task set forth by the committee served only to reveal further weaknesses in services to incarcerated young adults. By 1959, awareness of the problems of this group had reached such an extent that a special legislative committee was formed to make recommendations for changes in the program of services offered to these individuals. This objective was assigned to the State Legislative Study Council on Rehabilitation Services. This Council recommended that a study and evaluation be made of the educational and training programs offered in the institutions under the control of the State Board of Public Affairs. By the time this committee submitted its report on September 30, 1960, arrangements were being made between the State Board of Public Affairs and the State Vocational Rehabilitation Division to inaugurate a vocational rehabilitation program for state reformatory inmates.

The Reformatory is located in a rural community approximately 150 miles southwest of Oklahoma City. Farming is the primary industry of the surrounding area and of the institution. Approximately 1,800 acres are operated as farm land by inmates and personnel of the reformatory to produce cotton,

small grains, hogs, and dairy products.

In the early years the reformatory served essentially as another state penitentiary. This condition was largely the result of the fact that in determining who should go to the reformatory and who should go to the penitentiary, little consideration was given by the penal authorities to the age of the inmate, his criminal record, the seriousness of his crime, or the length of his sentence. Failure to take these facts into consideration resulted in some of the bloodiest riots and prison breaks in the state's penal history.

Following the recommendations of the prison committee in 1949, attempts were made to correct some of the weaknesses of the reformatory system. Provisions were made for the separation of inmates on the basis of age, type of offense, and past criminal record. Currently, all prisoners are sentenced to the State Penitentiary. During their first month of incarceration, the inmates are considered by a classification committee and either assigned to one of the Penitentiary units or transferred to the Reformatory.

A fully accredited, independent school district was established in 1949 within the Reformatory. The school employs a director and twelve qualified teachers who meet all the requirements of the State Board of Education for grades one through twelve and for special education. The school program stresses academic training but also includes social education and some trades and industry classes. Average daily

attendance in 1969 was 218 in the elementary and intermediate schools and 227 in high school. Presently, there is a waiting list of inmates who wish to be admitted to the elementary school.

Vocational training is provided in industrial arts, plumbing, electrical work, welding, general construction work, carpentry, laundry, dry cleaning, tailoring, cooking, baking, meat cutting, barbering, furniture upholstery, radio-television repair, automobile mechanics, bootmaking, saddlery, dairying and general farm work. These vocational training programs are lacking in organization and structure and, with the exception of radio-television repair, are more closely related to on-the-job training than to formal vocational education.

The Oklahoma State Division of Vocational Rehabilitation

The Oklahoma State Division of Vocational Rehabilitation, a division of the State Department of Public Welfare, is a state-federal agency responsible for providing rehabilitation services to disabled citizens who may be assisted in procuring gainful employment. Their basic aim is to provide services which will enable each individual to become self-supporting by utilizing his abilities to the fullest possible extent. Every resident of Oklahoma who has a physical or mental disability which causes a vocational handicap is eligible to apply for vocational rehabilitation services. Referrals

come from many sources such as physicians, schools, public and private welfare agencies, health agencies, interested individuals, or from the individual himself. Offices are strategically located throughout the state in order to enable handicapped people to make application in person, by telephone, or mail. Services provided include guidance and counseling, physical restoration, artificial appliances, training, tools and supplies, maintenance, and the ultimate goal of vocational rehabilitation--job placement and follow-up.

Since its establishment in 1925, the Oklahoma State Division of Vocational Rehabilitation has undergone all the changes of an expanding agency. At the outset, services were restricted to the orthopedically crippled. However, hidden disabilities such as diabetes, cardiac involvements, and convulsive disorders are as disabling as an orthopedic condition. Once this fact was acknowledged, rehabilitation services were extended to individuals with such disabilities. Public Law 113, enacted in 1943, further extended rehabilitation services to the mentally retarded and the emotionally disturbed. More recently, through Public Law 565, enacted in 1954, vocational rehabilitation services were broadened to include those individuals whose personality, character, and behavior disorders constituted a vocational handicap. Most of the inmates at the Oklahoma State Reformatory have been diagnosed as having personality, character, and behavior disorders.

Rehabilitation at the Oklahoma State Reformatory

The following paragraphs represent excerpts taken from the final report of a three-year research and demonstration project conducted at the Oklahoma State Reformatory. Since this particular research pertains to that segment of the population which received services in this program, a review of its history seemed appropriate. For the reader interested in a complete history of the program and its services, reference is made to the publication entitled, Rehabilitation of the Public Offender, A Cooperative Program of Correctional Rehabilitation (1967).

In 1961 the Oklahoma State Reformatory and the Division of Vocational Rehabilitation initiated one of the first cooperative programs in the nation for vocational rehabilitation of inmates confined to a state correctional institution. The objective of the program was to establish an integrated method for providing institutional rehabilitation and follow-up services to a select group of inmates. The program was exploratory in nature and attempted to demonstrate its effectiveness in returning inmates to society as useful and productive citizens.

The program has undergone a number of developmental changes. These changes were brought about by an increasing amount of knowledge and skill regarding the needs of the inmates of a reformatory. The program has been of an evolutionary nature with each new phase of development based upon

the knowledge developed in the preceding phase. The program, to this time, has passed through four distinct phases in its development.

Phase One

This phase began with the assignment of a vocational rehabilitation counselor to the Oklahoma State Reformatory in October 1961, and lasted for sixteen months. During this period, an effort was made to work with inmates in the traditional manner in which rehabilitation services had been provided to other types of disabled persons through the years. No specific selection procedures were employed. The only criterion for admission to the program was that the inmate displayed enough interest to prompt him to apply for services. No psychological or psychiatric services were available during this phase. The primary emphasis was on vocational training inside the institution and following parole or discharge. Vocational training had been in effect at the reformatory for some time prior to this program. However, the vocational training programs were strengthened and improved through guidance secured from other trade schools and from the development and use of organized training outlines.

During Phase One, a very limited amount of counseling and guidance was provided within the reformatory because many inmates were accepted for services only a short time before they left the institution. Another major problem was a shortage of specialized, follow-up counselors to work with the

inmates after parole or discharge. The responsibility of vocational rehabilitation services after the clients were released fell entirely upon the field counselors of the Oklahoma Rehabilitation Service. The knowledge, skills, and techniques developed by these individuals throughout the years have proved to be quite effective in working with the traditional disability groups. However, reformatory clientele presented many unique problems whose solutions were not readily incorporated in the duties of the field counselor. As a result, the follow-up services were often ineffective for the inmates and lacked the coordination and specialized planning needed for these cases.

Phase Two

The second phase in the development of the program started in February 1963. This phase began with the hiring of trained psychiatric and psychological personnel to provide treatment services within the reformatory and a qualified follow-up counselor to work with offenders after their release from the institution. Emphasis was placed on the "treatment" of the inmate in the months which followed.

This phase brought about some evolutionary changes. At times, group therapy was stressed; at other times, individual treatment was heavily emphasized. Several different methods of arousing interest and motivation within the inmate were also tried. However, selection procedures were not changed, and the clients continued to be selected on the

basis of their expressed interest.

Phase Three

Phase Three was instituted in August 1963. Then a detailed analysis of the work being done within the reformatory setting indicated difficulties in the following areas:

1. Inappropriate selection procedures;
2. A treatment process which was proving largely ineffectual;
3. The need for reorganization of provision of case services.

As a result of this analysis, the selection procedure was refined and standardized to a large extent. A method of screening inmates at the time they entered the institution was implemented. From this initial screening, a list of prospective clients was developed. All of those inmates who were chosen received psychological evaluations and counseling and guidance interviews. Actual clients to be served were finally selected from this list. As a result of this operation, the individuals chosen for services appeared to be more responsive and the results of the services showed improvement.

In the realm of treatment, the emphasis changed from strictly psychologically conducted by the psychiatrist and the psychologist to a unified procedure conducted by the psychologist, the psychiatrist, and the vocational rehabilitation counselor. Treatment became more of a teamwork process. The role of the rehabilitation counselor in this setting was

quite different from his traditional role in the regular rehabilitation programs. The rehabilitation counselor in the reformatory provided group and individual counseling to all inmates in his charge. The counseling sessions were devoted primarily to the exploration of vocational competencies and weaknesses, and to directing the individual toward a more effective utilization of his vocational potential. Much time and effort was spent in exploring the employment opportunities offered in various types of work. Through this process, a more meaningful type of vocational guidance was provided.

A major change during this phase was reorganization of the method of providing case services to individuals leaving the institution. Prior to this time, all case records remained in the institution. The rehabilitation counselor stationed there was held responsible for all rehabilitation activities which the clients performed after their release. This proved to be an ineffective means of operation since the interest patterns of clients sometimes changed because of conditions beyond their control. A more realistic appraisal of their situation after leaving the institution necessitated changes in their vocational objectives and their plans for reaching those objectives. It was more efficient to make the follow-up counselor primarily responsible for this phase of the program. Consequently, the case records of all clients leaving the reformatory were transferred to the follow-up counselor.

Phase Four

Phase Four started in July 1965. This phase was devoted to expansion of the program and restructuring the roles of the personnel. An additional counselor was added to the staff at the Reformatory. This person was assigned to caseload management and to counseling and guidance. The project director's caseload was thus reduced to enable him to give more attention to the administrative aspects of the program and to the relationship of the rehabilitation program to the institution's functions. The increase in caseload resulting from these changes necessitated the revision of selection procedures. Consequently, inmates who would probably have been refused at an earlier date were accepted in the rehabilitation program.

A second change in the selection procedures was also instigated. All inmates during the first two weeks of their imprisonment at the reformatory are contacted by rehabilitation personnel. An explanation of the program is presented and the inmates are asked to complete a short questionnaire. The questionnaire is designed to indicate the individual's interest in participating in the program, to provide some background data, and to give some information which may be interpreted by the psychologist as a projective technique regarding the motivation of the individual. This information is utilized in the initial screening of prospective clients.

The foregoing information provides some indication of the changes that have occurred in the program since its initiation. The program objectives and services have not changed appreciably since July 1965.

CHAPTER III

REVIEW OF LITERATURE

It was not until 1961 that state vocational rehabilitation agencies began to develop a formal program of vocational rehabilitation services for prison inmates. Consequently, very little research is reported in the literature regarding vocational rehabilitation of the public offender. However, much has been written in three major areas which is pertinent to this study. Although not dealing with vocational rehabilitation aspects, they, nevertheless, provide insight into the categories of magnitude of the crime problem, recidivism, and prior prediction studies which are all related to the present study. Each of these areas is briefly summarized.

Magnitude of the Crime Problem

The United States Department of Health, Education, and Welfare (1967) reported from a study group of the Fifth Institute on Rehabilitation Services:

More than 2,780,000 serious crimes were reported during 1965; a 6% increase over 1964.

Fourteen victims of serious crimes per 100,000 inhabitants in 1965, an increase of 5% over 1964 and 35% over 1960.

One hundred eighteen thousand, nine hundred robberies, 1,173,000 burglaries, 2,500,000 larcenies, and 486,000 auto thefts, resulted in total property stolen in excess of one billion dollars.

Careers in Crime: Initial F.B.I. study of offenders disclosed over 48% repeated within two years after being released to the street following a prior charge.

Young people commit a disproportionate share of crime and the number of young people in our society is growing at a much faster rate than the total population.

Although the 15 to 17 year-old age group represents only 5.4% of the population, it accounts for 12.8% of all arrests. Fifteen and sixteen year-olds have the highest arrest rate in the United States. The problem in the years ahead is dramatically foretold by the fact that 23% of the population is ten or under [p. 6].

Hoover (1968) reported that the cost of crime touched almost every citizen in some manner. The cost of crime was estimated at over twenty-seven billion dollars a year. Concerning such cost, Gilbert (1963) indicated that in Massachusetts it would be about as cheap to send an inmate to Harvard as it is to send him to jail.

J. Edgar Hoover (1969) reported that the decade of the 1960's showed both good and bad changes in society. During these ten years, the nation experienced unusual increases in crime, in criminal behavior, and in the risk of becoming a victim of crime. These increases were not attributed solely to the growth in population. The crime index rate for the nation has risen from 2,235 offenses per 100,000 inhabitants in 1968 to 2,471 in 1969, representing an 11 percent increase in one year. This acceleration accounts for Hoover's assertion that the risk of becoming a victim of crime has more than doubled since 1960.

Hoover (1969) further reported that during 1969 almost five million offenses were reported to law enforcement agencies. This represented an increase of 12 percent over 1968. The violent crimes, which accounted for 13 percent of the reported offenses, rose 11 percent, with murder up 7 percent, forcible rape 17 percent, robbery 14 percent, and aggravated assault 9 percent. The remaining 87 percent of the offenses were property crimes. These increased 12 percent from 1968 to 1969. Individually, burglary rose 7 percent, larceny \$50 and over increased 19 percent, and auto theft was up 12 percent. Since 1960, the violent crimes as a group have increased 130 percent, property crimes 151 percent, and the combined crime index 148 percent in volume [p. 4].

The arrest trends as reported by Hoover (1969) in the Uniform Crime Reports for the United States show that police arrests of adults increased 6 percent in 1969 and arrests for juveniles had an overall increase of 4 percent. For the period 1960-1969, police arrests for all criminal acts, except traffic offenses, increased 24 percent. During this same period, arrests of persons under 18 years of age doubled whereas the number of persons in this young age group, 10 to 17, rose 27 percent. It is apparent, therefore, the involvement of young persons as measured by police arrests is escalating at a pace almost four times their percentage increase in the national population. When only the serious crimes are used in computing the long-term trend 1960-1969, total

arrests rose 57 percent, and arrests of juveniles for Crime Index offenses rose 90 percent.

Recidivism

Recidivism (the return of a released inmate to a correctional institution) is commonly used for evaluating the effectiveness of the corrective programs of the institution. Conrad (1965) related that the use of this rate when judiciously used with its accompanying refinements constitutes the best measurement of correctional reformation.

Hoover (1969) reported in the Uniform Crime Reports for the United States that 74 percent of the offenders under 20 years of age released in 1963, were rearrested by 1969. Similarly, 72 percent of those 20 to 24 years old, and 69 percent of the offenders 25 to 29 years old were returned to prisons that same year. Of all the offenders rearrested during the calendar years 1965 to 1969, over one-half were under 30 years of age. The majority of these rearrests occurred within two years after release. A report on a six-year follow-up program of 18,567 offenders released from the federal criminal justice system in 1963 reported that 65 percent of this group were rearrested by the end of the sixth year after release. Of those persons who were acquitted or who had their cases dismissed in 1963, 92 percent were rearrested by 1969 for new offenses. Of those released on probation, 57 percent repeated, 63 percent were paroled, and 76 percent received mandatory release after serving prison time [p. 39].

The Indiana Reformatory (1965) gave an account of the examination of 1,284 parole violators. Within 18 months, 80.6 percent of the parole violators returned: 62.9 percent within 12 months, 50.2 percent within 9 months, 32.7 percent returned within 6 months and 11.9 percent within three months [pp. 1-4].

Stanton (1961) reported on a study of 4,591 individuals released on parole from 1959 through 1963. There were 71.5 percent who were not arrested, 3.3 percent who were arrested but not convicted, 11.1 percent were arrested and convicted but not recommitted, 0.7 percent were arrested and convicted of a misdemeanor or lesser offenses and recommitted, 1.9 percent were arrested and convicted of a felony but not recommitted, and 11.5 percent were arrested and convicted of a felony and recommitted [p. 3].

Glaser (1964) investigated the popular notion that two-thirds of the released prisoners return to prison within five years. He reported that the results of this investigation and other follow-up studies indicated that in the first two to five years after their release, approximately one-third of the men were returned to prison. Glaser also reported that recidivism of adult male offenders varied inversely with their post-release employment. The ex-prisoner's barrier to employment seemed to be his lack of extensive or skilled work experience rather than his criminal record.

Glaser (1964) also investigated the influences of certain pre-prison attributes of offenders which could not be changed by correctional programs. These attributes were age, offense, prior criminal record, race, intelligence, and body build. Glaser found that the older a man was when released from prison, the less likely he would be to return to crime. The younger a prisoner was when his first criminality was officially recorded, the more likely he was to continue in crime. Glaser further reported that the extent of an offender's prior criminal record appeared to correlate directly with the likelihood of his becoming a recidivist. Race, intelligence, and body build did not appear to be significantly correlated with recidivism. These findings were further substantiated by Hoover (1969). A review of the records at the Oklahoma State Reformatory from 1960 to 1969 by the investigator confirmed that this population also followed this trend.

Regarding the factor of age, Glueck and Glueck (1959) state:

Age at onset of antisocial behavior which is found to be markedly related to adjustment in the reformatory can hardly be overemphasized as a factor for predictive purposes [p. 67].

Glueck and Glueck further relate that it can be taken as quite clearly established that the deep rootedness of antisocial behavior manifestations exerts a continuing influence throughout the careers of delinquents and criminals. The review of the literature appears to be conclusive in the fact that the earlier the onset of criminality and the past

criminal record of an individual, increases the chances of future misbehavior. This theory has been documented many times and calls for greater rehabilitation efforts directed toward the young offender, if criminal careers are to be aborted. These two factors are pertinent to this study since they represent two out of the five factors chosen for use in the construction of the prediction table in the present study.

Prediction Studies

There is a definite lack of research which is specifically designed to predict the probability of vocational rehabilitation success and/or failure for either the physically disabled or the public offender. Ground work has been laid in prediction studies concerning the physically disabled, and some studies are available which are concerned with predicting success with the public offender. Although these studies are not directly applicable to this particular study, they do constitute a small but valuable repository of information which was used as a reference point for this study. The following paragraphs present a brief review of studies which were attempts to predict rehabilitation success of the physically disabled and the public offender.

Arnholter (1962) reported that neither Fisher's Rorschach Rigidity nor Maladjustment Scales predicted ultimate employability and that staff ratings based on several variables are likely to be more valid. Drasgou and Dreher (1965) conducted a study to determine failure-predictor

variables to be used in conjunction with success predictor variables in estimating the success rate of vocational rehabilitation. They suggested that psychological variables might help in predicting non-rehabilitants with greater accuracy than biographic variables.

Ehrle (1964) used biographical data to select applicants for state vocational rehabilitation services and to construct expectancy charts to indicate the probability of success. His results showed that differences between the successful and non-successful groups could be maximized for selection purposes. Furthermore, the data could be used to classify clients and be combined to establish expectancy charts.

Hoskins (1964) discussed the relationships among various screening measures and a rating of work adjustment of 346 clients at Goodwill Industries who received rehabilitation training. He concluded that the Personnel Application Form, education, previous service by other agencies, and socio-economic levels were not significantly related to vocational success. The Minnesota Multiphasic Personality Inventory (MMPI) was shown to have some screening value.

Eber (1966) conducted a multivariate analysis of a vocational rehabilitation system in Birmingham, Alabama. He chose 61 variables grouped in five major categories for his study. The two most significant variables were vocational adequacy at closure and vocational adequacy at follow-up.

The important result of Eber's analysis was the emergence of a pattern suggesting that some of the desirable effects of rehabilitation services, such as motivation and intent, were relatively transient. The pattern also showed that the long-standing habits of the client tended to reassert themselves after approximately one year.

In recent years renewed and increased attention of criminologists has been directed to the area of prediction. After the early works of Burgess (1928) there came a period of intense activity followed by a longer period of idleness in prediction studies, except for work by the Gluecks. Activity was again resumed on a major scale with the publication of the Mannheim and Wilkins study (1955) and the report of the Internal Congress of Criminology's Symposium on Prediction (1955). Demographic data were used by Mannheim and Wilkins in constructing their prediction tables. Utilizing Wilkins as a consultant, the California Department of Corrections developed prediction tables based on similar variables. Conrad (1965) has described the development and practical implementation of these methods.

Mannheim (1965) points out that although prediction of successful rehabilitation has always been inherent in correctional programs, the introduction of scientific approaches to prediction is a recent historical development.

All those concerned with the administration of criminal justice, judges and magistrates, practical and theoretical penologists and penal reformers, have been trying to predict throughout the ages, consciously or

unconsciously, but it is only in the course of the present century that their efforts have been subjected to systematic and scientific inquiry [p. 141].

He also observed that the need for prediction is based on a non-retributive philosophy.

There are several approaches in the prediction of deviate behavior. In comparing the methods of clinical versus statistical prediction, Meehl (1954) states:

Stouffer has treated the question, "What can the clinician do with his facts beyond that which can be done by the mechanical application of an actuarial table or a regression equation?" In his discussion Stouffer chiefly emphasizes the fact that a clinician can in special cases give more weight to a factor than it is given in the actuarial table. On what basis can he validly do this? As has been pointed out, if he does so, he must be using some law or other based upon his previous experience, and this law . . . is actuarial [p. 24].

Meehl seems to be inclined toward statistical prediction in general and toward regression analysis, step-wise regression analysis, and pattern regression analysis in particular.

There are at least seven instruments or techniques which offer some claim for early identification of the recidivist. These include the following:

Personal Index of Problem Behavior
Minnesota Multiphasic Personality Inventory
Porteus Maze Test
Washburne Social-Adjustment Inventory
Glueck Prediction Tables
Behavior Cards: A Test-Interview for Delinquent Children
Kvaraceus Delinquency Proneness Scale and Check List

None of these items is infallible, nor has any one of these methods demonstrated sufficient forecasting reliability to be used in a routine or perfunctory fashion. The examination of the literature dealing with prediction narrows the instruments

to the Minnesota Multiphasic Personality Inventory (MMPI), the Kvaraceus Delinquency Proneness Scale (KD), and the Glueck Prediction Tables. A critique of the KD Proneness Scale does not seem necessary because it is not widely used.

Hathaway and Monachesi (1953) reported that the MMPI has been shown only to be minimally effective in predicting recidivism. However, the MMPI has been used extensively in the evaluation of personality characteristics of the public offender. Dahlstrom and Welsh (1960) provide a thorough review of the studies of criminality through the use of the MMPI. The MMPI has been used in correctional studies in two major areas: the discrimination of prisoners from non-prison populations, and the identification of inmates with types of crimes committed.

The studies which involved the discrimination of prisoners from non-prison populations were first attempted. Research with the Psychopathic Deviate scale has made a major contribution to this area of study (Schiele, Baker and Hathaway, 1943; Hathaway and Meehl, 1951; Hathaway and Monachesi, 1953). Brodsky (1967) studied 3,226 MMPI profiles of military prisoners. He concluded that high Psychopathic Deviate and Hypomina scales frequently occurred and accounted for more than half of the subjects, as did low Social Introversion and Masculinity-Femininity Interest scale patterns.

The studies which involved the identification of prisoners by types of crimes committed is described well by

Panton. Panton (1958) studied 1,313 North Carolina inmates as an attempt to identify characteristics of the prisoners according to types of crimes committed. Participants were divided into six crime classifications. Panton concluded:

. . . there is a distinct prison population profile which may be employed to give added knowledge of prison population variations and personality profiling as compared to the profile of people in general. However, there appears to be no marked difference between the profiles of six major crime classification groups even though several of the diagnostic scales discriminate at the .01 level of confidence between various crime classifications, none of these discriminations is of such frequency or magnitude to warrant the use of a separate crime classification profile [pp. 307-308].

Clark (1948) found that the MMPI subscores failed to provide differential discrimination for recidivists as opposed to non-recidivists among AWOL soldiers. He also found that significant differences between the two groups could not be found by inspectional analysis of the profiles. He then introduced a recidivist scale (Rc) of 24 items which appeared to be effective with AWOL soldiers. However, Freeman and Mason (1958) applied Clark's Rc scale to civilian prison groups and found it ineffective. They then developed two scales of their own from the MMPI to differentiate between recidivists and non-recidivists, but these failed to stand up when applied to new samples of the same population. Their conclusion was that the possibility of the construction of a recidivist key for use with MMPI necessitated analysis of records of both recidivists and of parolees who had, after an ample period of time, demonstrated law abiding behavior.

This procedure, they felt might provide a group of non-recidivists free from contamination by those individuals who have not become repeaters only through lack of opportunity.

Mack (1969) concluded that the MMPI profiles used alone were not adequate in predicting recidivism after studying eighty recidivists and sixty-eight parole successes from a Minnesota state training school. Analyzing mean scale scores, elevations, code types and mean ranks of the clinical scales, he found no important differences were identified. Mack felt the use of the instrument might be restricted to exploring small differences between groups and that perhaps the combination of historical information and the MMPI might provide better predictive results.

Mandel and Barron (1966) were of the opinion that added to interviews, past history and observational data, the MMPI profile may give added predictive value. Their attempt at "blind sorts" of MMPI profiles by trained clinicians was, however, no better than chance. Their second procedure, an attempt to develop a scale predictive of recidivistic behavior was also unsuccessful. They queried as to whether recidivism scales developed in one geographical area would be reliable or valid in another geographical area with a different population of offenders.

It may be that Lytle (1963) hit just such a snag in his attempt to develop a personality schedule that would discriminate between potentially successful and unsuccessful

probation candidates. His conclusion that an empirically developed recidivism scale applied to MMPI responses alone cannot predict with any degree of confidence the recidivistic behavior of the probation population, may be due in part to the fact that 81 percent of the parole revocations were for technical violations. Since parole regulation can be idiosyncratic to each office, county or district, the returnees of one area can possibly be successful probationers in another area.

In an attempt to predict juvenile probation violators, Smith and Lanyon (1968) studied boys paroled directly from court as opposed to incarceration but found the base expectancy table aided prediction little better than chance. Predictions from MMPI profiles were at the chance level whether made clinically or actuarially from prior research data. Their findings substantiate the study by Gough (1965) that future behavior is better predicted by past behavior than from personality data. Arnold (1965) concurs in his study of recidivism among 14 to 17 year old parolees in Illinois that parolees' social relations while on parole are a more decisive factor in determining recidivism than personal characteristics. These ideas hark back to Sutherland's (1947) differential association theory of crime causation: "A person becomes delinquent because of an excess of definition favorable to violation of the law over definitions unfavorable to violation of law" [p. 6].

It may seem that an overwhelming amount of evidence has been presented identifying the MMPI as an ineffective prediction tool. It should be noted, however, that although the comparison of total profiles has proved to be of little effect, there has been some success in the development of predictive scales using the MMPI. Noteworthy are Pantan's PaV and Hc scales, the study by Dunham (1954) and reports by Hathaway and Monachesi (1953). It is perhaps these successes, studies and questions which give credence to the undertaking of additional research studies with certain subscales of the MMPI.

Panton (1962a) indicated some success with the use of scales developed from the MMPI to ascertain successful parole or habitual criminalism. Panton studied prisoners in the North Carolina Prison Reception Center. He defined the non-habitual as a first offender who had spent at least twenty or more years of his adult life gainfully employed. His habitual criminal--the recidivist--was one who had served three or more felon sentences prior to his present incarceration. The study group contained fifty first offenders and forty recidivists. Panton's conclusion was that the habitual criminal group presented MMPI profile of a greater sociopathy than the non-habituals. The habituals were successfully differentiated from the non-habituals by combining the Pd and the Ap scales into a single scale which was labeled the Habitual Criminal Scale (Hc).

The Hc scale was validated on additional samples of recidivists and first offenders. The scale was found to successfully identify habitual criminal groups; but, with the exception of 20-29 year olds who had served two prior sentences and to a lesser degree one prior sentence, the scale was unsuccessful in the identification of recidivists who had served only one or two prior sentences. The author felt that the large percentage of the 20-29 year olds identified reflected the probability that these individuals would in all likelihood be returning to prison on future additional sentences, whereas the older groups were less likely to continue in their criminal activities. He also urged that the Hc scale be used with caution until it had been submitted to further validation with additional first offender groups.

Panton (1962b) studied forty-one recidivists, forty-one non-violators who had satisfactorily served out parole tenure and had been released from supervision at least one year, and 2198 prison admissions. The author remarked that the similarity of the violator and admissions mean profiles on the MMPI underscores the difficulty in selecting parole candidates from a population in which parole violators more closely reflect the personality as a whole than do successful parolees. This agrees with Lytle's (1963) suggestion that the instrument be standardized on sub-populations.

Using criterion groups at San Quentin Prison, Dunham (1954) found that the D and Pd scales tended to differentiate

between recidivists and non-recidivists. The work of Lauber and Dahlstrom reported in Hathaway and Monachesi (1953) also identifies positive results. Three of the twelve scales on the MMPI revealed significant differences in the thirty-five delinquent girls studied. Contrasting eighteen for whom the treatment was successful with seventeen for whom it was not, the failure group was higher on Sc, Pt, and Hy. Although Pd was the highest standard score for both groups, it did not differentiate between the two.

Although there is a preponderance of evidence in the literature that the total MMPI profile is not an effective predictor of recidivism (Mack, 1969; Lytle, 1963; Mandel, 1966; and Smith and Lanyon, 1968) there is also some evidence that various scales or combinations of scales do relate some aspects of recidivistic and non-recidivistic behavior. (Hathaway and Monachesi, 1953 and 1963; Panton, 1962; Dunham, 1954; Eysenck, 1964; Dahlstrom and Welsh, 1960; Black, 1967; Brodsky, 1967.)

There are three particular scales of the MMPI which are pertinent and important to this study. These scales are Si, Pd, and Ma. Review of the literature appeared to indicate that these three scales had been more successful in predicting between recidivists and non-recidivists than most other scales. Moreover, the population from which most of the research had been reported was more closely related to the population studied in the present research. Therefore, the MMPI

sub-scales of Si, Pd, and Ma were chosen to represent three out of the five factors selected for use in developing the prediction table in this research.

The Si scale on the MMPI is a measure related to social introversion and extroversion. Persons scoring high on this scale are hesitant to enter into personal relationships and are likely to be socially seclusive. A low score is indicative of a person who is more extroverted and more likely to take part in social activities. Eysenck (1964) concluded that extroverts are more difficult to condition than introverts and, therefore, are more likely to become recidivists. Dahlstrom and Welsh (1960) made the following observations about subjects who score high and low on the Si scale. Extroverts are self-indulgent people, unable to delay gratification, and they are potentially guileful and deceitful. The high scoring introverts on the other hand are more controlled and inhibited and attempt to make proper adjustment in their social environment. A study by Black (1967) on a similar population in the same institution as the present study, reported that the Si scale discriminated between rehabilitation success and rehabilitation failure beyond the .05 level of confidence.

The Pd scale on the MMPI is indicated by the diagnostic term "Psychopathic deviate." Regarding this type of personality, Hathaway and Monachesi (1953) state:

These individuals are usually less controlled by the ordinary mores of society. They seem little affected

by remorse and do not appear to be particularly modified by censure or punishment. They are likely to commit asocial acts, but these frequently lack obvious motive [p. 17].

Reported research indicates that high scores on the Pd scale has been effective in discriminating between prisoners and non-prisoners, and between delinquents and non-delinquents (Hathaway and Monachesi, 1953; Dahlstrom and Welsh, 1960; Brodsky, 1967; Schiele, Baker and Hathaway, 1943; and Hathaway and Meehl, 1951).

The Ma scale on the MMPI is a measure related to enthusiasm and energy. Hathaway and Monachesi (1953) state:

Persons scoring high on the scale become readily interested in things and approach problems with animation. When this becomes abnormal, the activity may lead to antisocial acts or to irrational manic behavior [p. 18].

Hathaway and Monachesi further related that the Ma, Sc, and Pd scales were indicators of the commonest juvenile psychosis, schizophrenia, and also of the fairly common patterns of hypomania. In regards to this Hathaway and Monachesi state:

It may be that prepsychotic and generally deviant schizoid youngsters are prone to asocial or amoral acts. If so, these scales should show a tendency to elevation among delinquent youths [p. 134].

Hathaway and Monachesi (1953) fairly well sum up the predictive value of the Pd and Ma scores in the following statement:

The outstanding finding in positive relationship between recognized scale meanings and delinquency is that the MMPI scales of 4 and 9 have an excitatory role in the actuarial numbers predicting the development of asocial behavior [p. 136].

Considerable progress has been made in the area of prediction through the use of prediction tables, mainly

because of the growing experience and further refinements in statistical method. Two techniques, each of them with numerous variants, dominate the field: The Burgess technique, using a large number of predictive factors without any weighting and the Glueck technique, employing only a small number of factors and a weighting system. The prevailing view now seems to favor prediction tables based on a few factors only (Ohlin, Gluecks, Reiss, and others). There are others, however, such as Burgess and Frey, who favor a larger number of factors.

Probably the most ambitious and fruitful research with prediction tables in the United States has been done by Sheldon and Eleanor Glueck. In 1930, the Gluecks published Five Hundred Criminal Careers. They subsequently developed experience tables to be used in predicting delinquency (Glueck and Glueck, 1950). Their methods are among the most complex, mainly because the information used in their studies was carefully checked and supplemented from many sources. Sheldon and Eleanor Glueck have done extensive writing in the area of juvenile delinquency and in the area of predicting future delinquency (1930, 1931, 1934, 1937, 1940, 1943, 1945, 1950, 1952, 1956, 1958, and 1959). The prediction devices developed by the Gluecks are basic and important to this study. Their work and efforts greatly encouraged the undertaking of the present research.

In Glueck's study of Five Hundred Criminal Careers (1930) the life histories of all prisoners released from the

Massachusetts Reformatory in 1921 and 1922 were carefully examined over a period of five years. The data collected were related to success and failure as defined on the strength of the criminal records. The relationships of over fifty factors were analyzed using the statistical techniques of the mean square contingency coefficient. Prognostic tables using the six most important pre-reformatory factors were constructed and each individual offender was classified within score classes.

Later Criminal Careers (1937), a five year follow-up study to Five Hundred Criminal Careers, was a study of the biological, psychological, sociological, and criminal behavior changes brought about by the passage of time. The five factors which bore the highest relationship were used for the construction of the prediction table. The Gluecks found that the same factors that were presented in the first study were again prominently related to success or failure. Criminal Careers in Retrospect (Glueck and Glueck, 1943) was a follow-up for another five-year period of the same group. Prediction tables were constructed to enable a judge to select the particular form of peno-correctional treatment best suited to the individual offender with special reference to his age.

The second series of studies made by the Gluecks was concerned with juvenile delinquents. One Thousand Juvenile Delinquents (1934) was a follow-up study of one thousand boys referred to the Boston Juvenile Court for clinical examination

between 1917 and 1922. The relationships of sixty-odd factors to success or failure were studied. Prediction tables were constructed using the six factors which had the highest correlations with success. Juvenile Delinquents Grow Up (Glueck and Glueck, 1940) was a follow-up study, over a further period of ten years, of the original 1,000 boys. Prediction tables were constructed in the usual way by selecting, out of a total of sixty factors, the five which showed the highest correlation with success or failure. The general prediction table was supplemented by other tables showing the likelihood of success, failure, or erratic behavior during various forms of treatment. One of the major findings of this study was the improvement in conduct with advancing age.

Five Hundred Delinquent Women (Glueck and Glueck, 1934) was the only study made by the Gluecks dealing with females. In this study 258 factors were examined. Of the fifteen factors bearing the highest correlation to non-recidivism, five were chosen to construct the prediction table. No validation of the tables was attempted; however, when compared with the actual outcome, at least two-fifths of the prognoses were regarded as grossly erroneous.

Unraveling Juvenile Delinquency (Glueck and Glueck, 1950) is a study which was made of a controlled group of five hundred delinquent boys from state schools in Boston. Their prediction tables were constructed for the purpose of

predicting the future conduct of children upon school entrance. The tables resulted in only 2.4 percent of the boys being incorrectly identified as delinquent or non-delinquent. This study differed from other Glueck prediction studies in that they were trying to predict future delinquency in boys not yet delinquent and attempting to utilize the characteristics of the subjects at the age of fourteen to predict future delinquency of children at age six or seven.

In addition to the studies by the Gluecks, there are several other studies which have played an important role in the advancement of prediction tables. For the reader interested in learning more about these studies, reference is made to Appendix A of the Gluecks' publication entitled Predicting Delinquency and Crime (1959). This publication provides an excellent review of studies in which attempts were made to predict future conduct by means of prediction tables. These American and European studies cover approximately thirty years, and most have been concerned with predicting the future conduct of adult prisoners. Reference is also made to Appendix B of the present study, which contains a supplementary bibliography of prediction studies dealing with the public offender.

Although the work of the past thirty years has brought some of the problems nearer to their solutions and has narrowed the area of controversy, it cannot be claimed that unanimity has everywhere been reached. The value and the

accuracy of prediction methods remain controversial, but the trend toward their extended use is clear.

CHAPTER IV

METHODOLOGY AND PROCEDURES

Kerlinger (1965) points out that although ex post facto studies are often viewed with disdain, some studies can be done only by ex post facto methods. This study was an ex post facto study that utilized data collected from the records of inmates confined to the Oklahoma State Reformatory who had received services in its Vocational Rehabilitation Program between July 1, 1965 and June 30, 1968. The objectives of the study were (1) to determine if implications found in the literature pertaining to factors which differentiate between success and failure of the public offender could be related to vocational rehabilitation success and/or failure, (2) to determine whether such factors could be incorporated into expectancy charts to predict the probability of rehabilitation success and/or failure, and (3) to check the accuracy of the prediction table by a cross-validation study.

Choice of Research Design

Research studies of Sheldon and Eleanor Glueck and their encouragement to others to experiment with their

prediction methods stimulated this research. The method used by Glueck and Glueck (1959) for constructing prediction tables which is used in this study can be summarized in the following steps:

1. From among the highly differentiating factors, five are selected, taking into consideration whether or not these factors are mutually exclusive. When possible, those are selected that are relatively independent of one another. The practical matter of the ease or difficulty of gathering the data by those who would be charged with the task is also considered in making the selection.
2. The percentages of subclass incidence of violation, or maladaptation, or recidivism, or delinquency, as the case may be, are next set down for each of the five selected factors.
3. The next step is to determine the lowest and highest possible scores by adding all the smallest percentages of the subcategories of the five factors, on the one hand, and all the largest percentages of the subcategories of the five factors, on the other.
4. Next, score classes are established in equidistant intervals between the minimum and maximum score limits.
5. Then, each case in the group is scored on the five factors and placed in the appropriate score class and appropriate behavior category, the number falling into each score class being converted to percentages.
6. The resulting distribution of percentages is the basis for the predictive instrument.
7. Finally, the distribution of the percentages is examined to determine what combination of the score classes provides the sharpest predictive instrumentality [pp. 30-31].

Most of the research by Glueck and Glueck is based on samples of delinquents and non-delinquents. In each case, efforts were made to match the delinquent with the non-delinquent in regard to age, intelligence, residential background and ethnic origin. The population for this study, which was divided into recidivists and non-recidivists groups, was composed of individuals who had all been convicted of a

felony and sentenced to the Oklahoma State Reformatory. No attempt was made to match the subjects in this study.

The major differences between this research design and that of Glueck and Glueck occur in:

1. the method used to select predictive factors
2. the type of population studied
3. the use of a cross-validation study to test the over-all effectiveness of the constructed prediction table.
4. Most of the factors used by Glueck and Glueck in constructing their prediction tables was subjective in nature, whereas the factors used in this study were more quantitative.

Selection of Data Sources

Data used in this research were restricted to information maintained in the reformatory records. These records consist of two major documents: the prison classification folder and the vocational rehabilitation folder. The prison classification folder contains personal data on the inmate and information regarding arrests and convictions. The vocational rehabilitation folder contains information collected by the rehabilitation counselor and results of various tests administered to the inmate.

The case records maintained in the reformatory contained information concerning race, new sentence, parole violation, birth date, educational level, types of offenses,

number of offenses, number of FBI inquiries, drinking problems, physical limitation, known mental disorders, marital status, number of children in inmate's family, number of children the inmate had fathered, other family members who had been in a penal institution, father's and mother's occupations, age of parents, work reports, school reports, number of rule violations, length of stay in the institution, if inmate had been in a training school, veteran or non-veteran, type of institutional training, type of training outside of institution, work history before commitment, types of counseling received, and scores on various psychometric tests.

Much of the information in the reformatory records was obtained by statements from inmates themselves, which may or may not have been accurate. Only that information which was properly documented was considered in this study.

Because this study was of an ex post facto nature, no specific instrument was administered for the purpose of obtaining research data. However, the observations from one widely used instrument, the Minnesota Multiphasic Personality Inventory (MMPI) was used since its results were available on all subjects. The MMPI is a questionnaire which yields a profile of personality characteristics. There are scales for each of 13 categories. These scales and their identifying letters are: Lie, L; Validity, F; Correction, K; Hypochondriasis, Hs; Depression, D; Hysteria, Hy; Psychopathic Deviate, Pd; Masculinity-Femininity Interest, Mf; Paranoia,

Pa; Psychasthenia, Pt; Schizophrenia, Sc; Hypomania, Ma; and Social Introversion, Si. Raw scores, K corrected, were used in the present study for the purpose of comparing differences between the recidivists and non-recidivists.

Selection of Subjects

Subjects included in this research were inmates who received vocational rehabilitation services while incarcerated at the Oklahoma State Reformatory and who left the reformatory between July 1, 1965 and June 30, 1968. Although a total of 229 inmates met the criteria of the study, thirteen were deleted because of insufficient data. As the institutional records were examined, the population was divided into two groups, recidivists and non-recidivists. The recidivists represent those subjects who left the reformatory during the prescribed period of the study but were returned. The non-recidivists were those persons who were released during the prescribed period and were not returned. Table 1 shows the number and percentage of recidivists and non-recidivists who received services in the vocational rehabilitation program and left the reformatory during the period covered by this study.

The population from which the subjects were drawn are youthful offenders who have been convicted of at least one felony. Appendix A contains information regarding the characteristics of the total reformatory population for calendar year 1968.

TABLE 1

DISTRIBUTION OF INMATES LEAVING THE OKLAHOMA STATE
REFORMATORY VOCATIONAL REHABILITATION PROGRAM
BY RECIDIVISTS AND NON-RECIDIVISTS
JULY 1, 1966 TO JUNE 30, 1968

	Recidivists		Non-Recidivists		Total	
	Number	Percent	Number	Percent	Number	Percent
1965-66	29	47	33	53	62	100
1966-67	31	42	43	58	74	100
1967-68	32	34	61	66	93	100
Total	92		137		229	

The subjects studied in the present research are different from the over-all population of the reformatory in that they had all been screened and accepted into the institution's vocational rehabilitation program. The procedure employed in the reformatory to determine candidates for the vocational rehabilitation program is designed to select those inmates who appear to have the best chance to be successfully rehabilitated. It is only reasonable to expect that these selection procedures would necessarily narrow the differences which would be expected between individuals and groups. The select group of subjects which made up the population of this particular study ranged in age from 15 to 27 years, and they represented a homogeneous group in regard to ethnicity, religion, socio-economic background, education, and marital status.

Selection of Successful Factors
and Failure Factors

The method used by Glueck and Glueck to select factors for possible use in their prediction tables entails a long process based on intensive follow-up studies. Their methods are among the most complex, mainly because information used in their studies was carefully checked and supplemented from many sources.

It did not appear feasible for the investigator to attempt the complex method used by Glueck and Glueck for the selection of factors for use in this study. The information maintained in the reformatory records was limited, and much of the information had not been properly documented. In addition, necessary resources to properly check and supplement the data were not available to the investigator.

The method used to select factors for use in this study was to review existing literature to determine from past research possible factors which would be appropriate for use in the present study. Review of the literature revealed several factors which gave evidence of differentiating between the recidivists and non-recidivists. The problem became one of determining which factors would most adequately meet the specific purpose and aim of this particular study. To determine how the factors would be selected, three criteria were established. They were:

1. The three major considerations specified by
Glueck and Glueck (1959) for selecting factors

would be followed:

- a. to consider whether the factors chosen are mutually exclusive
 - b. to select from among all the possibilities those that are relatively independent to one another
 - c. the practical question would be considered, whether penocorrectional authorities who might use such tables would have the needed data readily available.
2. The selection of factors would be limited to those which could be evaluated from information maintained in the reformatory records. This information was further restricted to include only that data which was properly documented.
 3. Since the purpose of this particular study was to predict which inmates might be successful in a rehabilitation program, the factors were further limited to include only those which could be obtained from information that was available upon, or soon after, the inmate's entrance into the reformatory.

The above restrictions considerably narrowed the number of factors which could be considered for possible use in the study.

Selection of Table Construction (TC) and
Cross-Validation (CV) Groups

The population of this study consisted of 216 inmates divided into two groups, the recidivists and non-recidivists. One-half of each group was randomly selected to form the table construction (TC) group. This group was used to construct the prediction table following the previously described method developed by Glueck and Glueck. The second group, designated as the cross-validation (CV) group, was used to test the accuracy of the predictions made on the basis of the table constructed from the TC group. Each individual in the CV group was scored on the factors in the prediction table, and a prediction made concerning the probability of rehabilitation success or failure of each. Table 2 shows the distribution of the 216 inmates by TC and CV groups.

TABLE 2

DISTRIBUTION OF INMATES INCLUDED IN THE TABLE CONSTRUCTION (TC) GROUP AND CROSS-VALIDATION (CV) GROUP,
BY RECIDIVISTS AND NON-RECIDIVISTS

	Recidivists		Non-Recidivists		Total	
	Number	Percent	Number	Percent	Number	Percent
TC Group	42	39.0	66	61.0	108	100
CV Group	42	39.0	66	61.0	108	100
Total	84		132		216	

Statistical Analysis of the Data

The analysis of the data in this study consisted of evaluating the differences between the recidivists and

non-recidivists on the factors selected for use in the study. All data were processed through the University of Oklahoma Computer Center using the IBM 1130 Computer or with a Freiden electronic calculator.

In an attempt to analyze the differences among the factors and to determine the degree of difference between the recidivists and non-recidivists, two statistical methods were employed. For the three MMPI factors Pd, Ma and Si, a computer program was designed to compute a mean analysis on a repeated measures design (Kirk, 1968). Since there were unequal subjects in the two groups, an unweighted mean analysis was used to conform to the differences in sample size. The two factor repeated measures design used consisted of non-recidivists and recidivists as the between factor, and the levels of the MMPI as the repeated factor. The output of this program included means, standard deviations, sum of squares, degrees of freedom, and F ratios. The differences between the groups on the two factors of age at time of incarceration and number of FBI entries was computed by the Mann Whitney U Test, a non-parametric test. These two factors were not included on the repeated measures design due to differences in scales of measurements and score ranges.

CHAPTER V

RESULTS AND DISCUSSION

The results of this research are presented and discussed in this chapter in the following order: selection of the prediction factors, construction of the prediction table, cross-validation of the prediction table, and conclusions. Results obtained from the statistical analysis of the data are also presented in this chapter.

Selection of Prediction Factors

The first step in the construction of a prediction table, following the Glueck and Glueck (1959) procedure, was to select five factors which discriminated between the recidivists and non-recidivists. The selection of factors for this study was made by reviewing the literature and selecting those which appeared to differentiate most between the recidivists and non-recidivists.

The factors chosen were the Number of FBI Entries, the Age of the Inmate at Time of Incarceration in the Reformatory, and the Minnesota Multiphasic Personality Inventory (MMPI) Subscales of Social Introversion (Si), Psychopathic Deviate (Pd), and Hypomania (Ma). The rationale for selecting

these particular factors was:

1. reported research indicated that they had been successful in discriminating between recidivists and non-recidivists.
2. they met the specific criteria described by Glueck and Glueck, (1959) for selection of factors
3. data were available in the reformatory records to test the factors on the population studied
4. information regarding the factors was available in the reformatory records upon, or soon after the inmate's commitment to the reformatory. This would make possible an early prediction of the inmate's probability of rehabilitation success or failure.

The factors concerning the Number of FBI Entries and Age at Time of Incarceration is supported as distinguishing between success and failure in research studies reported by Glaser, 1964; Hoover, 1969; and Glueck and Glueck, 1959. Research pertaining to the predictive value of MMPI Subscales Pd, Ma, and Si has been reported by Hathaway and Monachesi, 1953 and 1963; Dahlstrom and Welsh, 1960; Brodsky, 1967; Panton, 1958 and 1962; Eysenck, 1964; Dunham, 1954; and Black, 1967.

Table 3 presents a comparison of recidivists and non-recidivists from the total population on the three MMPI

subscales Pd, Ma, and Si. These factors are compared both on the basis of descriptive statistics, including means and standard deviations and on inferential statistics using F values to determine the significance of the differences in means.

TABLE 3
DESCRIPTIVE STATISTICS AND COMPARISON OF MEANS
BETWEEN THE RECIDIVISTS AND NON-RECIDIVISTS
ON THE THREE MMPI SUBSCALES
OF Pd, Ma, AND Si

Variable	Group	N 216	Mean	Std. Dev.	F Ratio	Sig. LvL.
PD	Non-Recidivists	132	26.74	4.74		N.S.
	Recidivists	84	27.21	4.13		
MA	Non-Recidivists	132	20.37	4.57		N.S.
	Recidivists	84	20.79	4.38		
SI	Non-Recidivists	132	25.36	7.74		N.S.
	Recidivists	84	25.52	9.00		

Table 3 shows there was no significant difference found between the recidivists and non-recidivists on the three MMPI subscales Pd, Ma, and Si. In fact, there was surprising similarity between the means and standard deviations of the two groups on these three scales. The results do confirm other findings in the literature that public offenders are characterized by high Pd and Ma scores and a lower Si score.

Table 4 presents a comparison of recidivists and non-recidivists from the total population on the two factors of

age at time of incarceration and number of FBI entries. The table includes the means, standard deviations and Z values.

TABLE 4

DESCRIPTIVE STATISTICS AND COMPARISON OF MEANS BETWEEN
THE RECIDIVISTS AND NON-RECIDIVISTS ON THE TWO
FACTORS OF AGE AT TIME OF INCARCERATION
AND NUMBER OF FBI ENTRIES

Variable	Group	N 216	Mean	Std. Dev.	Z	Sig. LvL.
Age	Non-Recidivists	132	20.07	2.35	30.37	.0001
	Recidivists	84	18.93	4.19		
FBI En- tries	Non-Recidivists	132	4.11	7.32	30.65	.0001
	Recidivists	84	5.65	3.47		

Table 4 indicates that significant differences were found to exist between the recidivists and non-recidivists on both factors of age at time of incarceration and the number of FBI entries. These findings support reported research that these factors are capable of differentiating between recidivists and non-recidivists.

As indicated from Table 3, three out of the five factors selected for use in this study failed to significantly differentiate between the two groups. However, significant difference was not necessarily expected between the groups on these particular factors. It was only reasonable to expect that obtaining significant differences between two like groups was highly improbable. Although the subjects were not matched in this study, similarity between the groups was

expected because of the method used by the State of Oklahoma in determining what type of public offender is to be committed to the reformatory. In addition, the subjects that made up the population of this study was a select group who had all been screened and accepted into the institution's vocational rehabilitation program. These screening procedures would necessarily narrow the differences that could be expected between individuals.

Although statistical findings failed to show that all five factors selected for use in this study significantly discriminated between the recidivists and non-recidivists, the decision to continue with the original research design appeared to be warranted. This decision was based on the following:

1. There was evidence in the literature that MMPI subscales of Pd, Ma, and Si, or combinations of these scales had related some aspects of recidivistic and non-recidivistic behavior.
2. The method employed by Glueck and Glueck (1959) in the construction of their prediction table, and followed in this study, called for weighting of the five factors. It was reasonable to expect that the weighted scores could logically make a difference in the distribution of individual scores in the final prediction table.
3. The statement by Glueck and Glueck, (1959)

regarding the selection of factors, which was:

Experience has shown, however, that it is not indispensable to utilize the five factors bearing the very highest association with behavior; even the cumulative effect of small differences can result in a competent predictive device [p. 26].

4. It was logical to assume that the two factors which did significantly discriminate between the two groups would increase the prediction accuracy of the over-all prediction instrument.

Construction of the Prediction Table

Upon completion of step one, the selection of factors, the second step in construction of the prediction table was undertaken. The purpose of this step was to determine the percentage of recidivism actually occurring within each subcategory of a factor. To accomplish this, the subjects which made up the population of the study were divided into two groups--recidivists and non-recidivists. All recidivists and non-recidivists were randomly subdivided to form the Table Construction (TC) and the Cross-Validation (CV) groups. The subjects in the TC group were used to construct the prediction table. Table 5, which was made up from the TC group, shows the factors selected as predictors and their subcategories, the number of recidivists and non-recidivists in each subcategory, and the percentage of recidivism actually occurring within each subcategory.

Table 5 indicates that a subject who obtains a score

TABLE 5

PERCENTAGE OF RECIDIVISM ACTUALLY OCCURRING
WITHIN EACH SUBCATEGORY OF A FACTOR

Predictive Factor and Sub-Categories	Recidivists	Non- Recidivists	Total	% Inci- dence of Recidivism
MMPI (Si)				
20 and below	16	21	37	43.0
21-30	17	27	44	39.0
31 and above	9	18	27	33.0
Total	42	66	108	
MMPI (Ma)				
23 and above	16	18	34	47.0
20-22	13	22	35	37.0
19 and below	13	26	39	33.0
Total	42	66	108	
MMPI (Pd)				
31 and above	8	11	19	42.0
22-30	33	49	82	40.0
21 and below	1	6	7	14.0
Total	42	66	108	
Age at Incarceration				
18 and below	12	16	28	43.0
19-20	16	24	40	40.0
21 and above	14	26	40	35.0
Total	42	66	108	
FBI Entries				
6 and above	17	18	35	49.0
2-5	22	33	55	40.0
1	3	15	18	17.0
Total	42	66	108	

of 20 or below on the Si scale of the MMPI has a 43 percent chance of recidivism, or a 57 percent chance of non-recidivism. Since each inmate receives a score for all five factors shown in Table 5, the total score for each subject is determined by adding the probability-of-recidivism score from each of the factor categories. The resulting score is actually a cumulative probability of recidivism. The higher this cumulative probability becomes, the more possibility the subject has of being a recidivist; and the lower the cumulative score, the less the chance of recidivism.

The third step in the construction of the prediction table was to determine the highest and lowest violation scores possible for a recidivist to receive on the factors involved. These scores represent the actual percentage of recidivism in each subclass of a factor and in the sample from which the table was constructed who failed to respond satisfactorily to the rehabilitation program. By adding the smallest percentages in the subcategories of the factors, the lowest possible recidivism score was obtained; by summing the five largest percentages, the highest possible recidivism score was determined. In the series of factors presented in Table 5, summation of the lowest scores--33, 33, 14, 35, and 17, which totals 132--provides one extreme of the range of scores. Summation of the highest possible scores--43, 47, 42, 43, and 49, which totals 224--gives the other extreme.

The fourth step in the construction of the prediction table was to establish in narrow, equidistant intervals, score classes between the minimum and maximum limits. With a range of scores from 132 to 224, several score classes were examined. A three-class score interval of 20 resulted.

The fifth step in the construction of the prediction table was to score each subject in the TC group on the predictive factors and place them in the appropriate score class according to total score and in respect to whether they were recidivists or non-recidivists, the number falling into each score class being converted into percentages. Table 6 represents the detailed prediction table constructed from the TC group. The resulting distribution of percentages was the basis for the prediction instrument and represents the sixth step in prediction table construction.

TABLE 6
DETAILED PREDICTION TABLE FROM FIVE FACTORS
PREDICTIVE OF REHABILITATION
SUCCESS AND FAILURE

Weighted Failure Score Class	Recidivists Within Respective Score Classes		Non-Recidivists Within Respective Score Classes	
	Number	Percentage	Number	Percentage
180 or less	4	19	17	81
181-200	17	35	32	65
201 or over	21	55	17	45
Total	<u>42</u>		<u>66</u>	

Table 6 shows that an inmate scoring less than 180 on the factors involved has 81/100 chance of being successful in his rehabilitation attempt. If he scores between 181-200 his chances of rehabilitation decrease to 65/100; and if he scores 201 or over, his chances of success are 45/100.

The last step in construction of the prediction table was to examine the distribution of percentages to determine what combination of score classes would provide the sharpest predictive device. After examining the possibility of utilizing a two, three, and four score-class prediction table, it became evident that a three-class table provided the best predictive instrument. Results of this last step made no change in the final prediction table as presented in Table 6.

Cross-Validation of the Prediction Table

Results of the research reported thus far have been limited to the method used to arrive at factors which distinguished between rehabilitation success and failure, how these factors were incorporated into a prediction table, and the predictability of certain scores of inmates. Glueck and Glueck (1959) related that until the prediction table is applied to cases other than those on which it was constructed, it is more accurate to regard it as an "experience" table. At this stage, it merely records an existing situation with reference to the particular sample from which it was derived. Testing the accuracy of the prediction table by applying it to another sample of cases is clearly necessary to determine

whether the inter-connection of factors is general or specific.

As a method of testing the accuracy of the prediction table constructed from the TC group, the population from the CV group was scored against the table. Subjects in the CV group were scored on each factor and given a total score. They were then placed in the appropriate category by score and recidivism record. Table 7 shows the results obtained when the CV group was scored against the prediction table.

TABLE 7

RESULTS OBTAINED BY SCORING THE CROSS-VALIDATION (CV)
GROUP AGAINST THE PREDICTION TABLE DEVELOPED
FROM THE TABLE CONSTRUCTION (TC) GROUP

Weighted Failure Score Class	Recidivists Within Respective Score Classes		Non-Recidivists Within Respective Score Classes	
	Number	Percentage	Number	Percentage
180 or less	5	20	20	80
181-200	15	32	32	68
201 or over	22	61	14	39
Total	42		66	

Table 7 indicates that predictions made on the CV group resulted in close approximations of the prediction table in all weighted failure score classes. A comparison of predictions between the TC and CV groups appears in Table 8.

TABLE 8
COMPARISON OF PREDICTION BETWEEN THE TABLE CONSTRUCTION (TC)
AND CROSS-VALIDATION (CV) GROUPS

Weighted Failure Score Class	Table Construction				Cross-Validation			
	R	NR		Prediction Percent	Total Number	Number of NR Predicted	Actual Number of NR	Difference Between Predicted and Actual
180 or less	4	17	21	81	25	20	20	0
181-200	17	32	49	65	47	30	32	+2
201 or over	21	17	38	45	36	16	14	-2
Total	42	66	108		108	66	66	

Table 8 shows that 25 inmates from the CV group were in the first weighted failure score class of 180 or less. The percentage of recidivists in this score class was predicted to be 19 percent and non-recidivists 81 percent. These percentages indicate that 20 out of the 25 cases in this score class would be non-recidivists. Results show that the table would have predicted all those individuals who had a total weighted failure score of 180 or less. For those 47 inmates who obtained a total weighted failure score of 181-200, the table predicted that of this group, 30 would be non-recidivists. The actual number of non-recidivists occurring was 32, a difference of two. In the last weighted failure score class of 201 or over, the table predicted 16 non-recidivists when actually there was only 14, a difference of two.

As indicated by Table 8, the prediction table was capable of predicting the recidivists and non-recidivists in the CV group with unusual accuracy. The degree of accuracy of prediction should not be confused with the probability of successful rehabilitation. While a subject having a total weighted failure score of 180 or less has only a 81 percent chance of successful rehabilitation, the table predicted the subjects in this score class with 100 percent accuracy.

No attempt was made in this study to determine the degree of probability of success necessary for admission to the vocational rehabilitation program. Such a decision could

be made only by officials in the program after considering staff, facilities, funds, types of programs available, and other such factors.

Conclusions

The purpose of this research was to develop a prediction table which could be used by personnel in the Oklahoma State Reformatory Vocational Rehabilitation Program to determine an inmate's probability of rehabilitation success and/or failure. The development of such a table would make possible maximum use of the program's staff, funds, and services. While the prediction table developed in this study was not intended to serve as an absolute predictor of rehabilitation success and/or failure, its usefulness as a tool in determining which inmates might benefit most from the Oklahoma State Reformatory Vocational Rehabilitation Program was clearly demonstrated.

Several conclusions can be drawn from the results of this research in regard to the population studied. They are:

1. The two factors of age at time of incarceration and the number of FBI entries significantly differentiated between the recidivists and non-recidivists in the present research. The recidivists generally appeared to be younger when committed to the reformatory and had more recorded FBI entries than non-recidivists. It

would appear that these two factors should be taken in consideration when attempting to predict the probability of rehabilitation success and/or failure among this population.

2. The three factors selected from the MMPI, subscales Pd, Ma, and Si, failed to significantly differentiate between recidivists and non-recidivists in the total population. It was not in the scope of this research study to discuss the relationship or to make inferences about causes of differences between the two groups. Identification of real causative sources among the many variables awaits further research methodology. However, visual inspection of data in the present study would seem to indicate that individual MMPI subscales Pd, Ma, and Si or, combinations of the three, might relate some recidivistic and non-recidivistic behavior. Results of this study indicate that considerable caution should be exercised before using these three factors to determine the probability of rehabilitation success and/or failure. It is reasonable to expect, however, that these scales could serve as an additional tool in the reformatories traditional screening procedure. It is logical to expect that the higher an individual inmate scores on the Pd

and Ma scales and the lower his score is on the Si scale, more caution one should exercise in the selection procedure.

3. Results of this study encourage possibilities that certain factors contained in the literature regarding the public offender can be related to rehabilitation success and failure. This study further encourages the possibility that certain factors can be incorporated into expectancy charts to predict the probability of rehabilitation success and/or failure.

There are two major qualities of the prediction table developed in this study which make it a valuable and useful tool to vocational rehabilitation and correctional authorities. One of these is its ease of application. The prediction table would be easy to apply to inmates of the Oklahoma State Reformatory since data pertaining to predictive factors are available.

The second important quality of the prediction table would be the immediate use it would provide in determining the probability of rehabilitation success and/or failure of a particular inmate. Since all predictive factors would be available upon, or soon after, the inmate entered the institution, a decision regarding his feasibility for entrance into the vocational rehabilitation program could be made during the first week of incarceration. This would provide

program personnel with a quick screening device which would save considerable time and money in their selection procedures.

The above mentioned qualities would hold true only after validity and reliability of the table had been established by applying it to other groups. Nevertheless, the table could, as presented, serve as an additional tool in the institutions traditional screening process.

CHAPTER VI

SUMMARY AND IMPLICATIONS FOR FURTHER RESEARCH

Summary

The present study was conducted to discover if a prediction table could be developed to predict the probability of rehabilitation success and/or failure of inmates confined to the Oklahoma State Reformatory. The research methodology employed in this study followed similar procedures developed by Sheldon and Eleanor Glueck (1959).

The population of this study consisted of 216 inmates who received services in the Oklahoma State Reformatory Vocational Rehabilitation Program between July 1, 1965 and June 30, 1968. Using the reformatory records, the investigator divided the population into two groups, recidivists and non-recidivists. Recidivists were those inmates who left the reformatory during the prescribed period of this study and were returned. Non-recidivists were those inmates who were released during the prescribed time and did not return to the reformatory. The population was further randomly subdivided into two specific groups, the Table Construction (TC) group and the Cross-Validation (CV) group. Subjects in the TC group were used to construct the prediction table and the CV

group was used to cross-validate the prediction table.

Selection of factors for use in the construction of the prediction table in this study was made by reviewing the literature and choosing those which appeared to distinguish most between the recidivists and non-recidivists. These factors were: (1) age at time of incarceration into the reformatory, (2) number of recorded FBI Entries, and (3) the three MMPI subscales, Pd, Ma, and Si. The factors of age at time of incarceration and number of recorded FBI Entries significantly discriminated between the recidivists and non-recidivists. The three MMPI subscales, Pd, Ma, and Si failed to significantly discriminate between the groups.

The prediction table, developed from the TC group using the factors chosen in this study as predictors of rehabilitation success and/or failure, resulted in the following predictions: for those inmates who scored 180 or less on the factors involved, there was a 81/100 probability of being successful in their rehabilitation attempt; for those scoring between 181-200, the probability of successful rehabilitation decreased to 65/100; and for those who scored 201 or over, the probability of successful rehabilitation was 45/100. The results obtained when the CV group was scored against the prediction table resulted in accurate predictions of all those individuals in the first weighted failure score class. The table failed to predict only two inmates in each of the last two score classes. These results seemed to indicate that the

higher the weighted score, the less accurate the table was in predicting.

No attempt was made to determine the degree of probability of success necessary for admission to the vocational rehabilitation program. Such a decision could only be made by officials in the program after considering staff, facilities, funds, types of programs available, and other such factors.

The intent of this research was to construct a prediction table which could be used by the vocational rehabilitation program at the Oklahoma State Reformatory to screen out or to select those inmates who have the highest probability of rehabilitation success and thereby make maximum use of the services, funds, and personnel available. While the prediction table developed in this study was not intended to serve as an absolute predictor of rehabilitation success or failure, its usefulness as a tool in determining which inmates might benefit most from the Oklahoma State Reformatory Vocational Rehabilitation Program was clearly demonstrated.

Implications for Further Research

The need for additional research in all areas of criminology cannot be questioned. Considering the emphasis that is now being placed on vocational rehabilitation of the public offender, and increased amounts of public funds that are being channeled into this area, the importance of research specifically related to vocational rehabilitation of

the public offender is apparent. The cooperative programs of vocational rehabilitation services that have been implemented between state vocational rehabilitation agencies and correctional institutions offer tremendous possibilities for advancement of correctional rehabilitation. Moreover, these programs provide an excellent opportunity for further research.

Perhaps the most obvious area for further research is for additional validation of the prediction table developed in this study. One possible method of validating the table would be to apply it to that portion of the population which was confined to the Oklahoma State Reformatory during the same period of the present study, but who did not receive vocational rehabilitation services. The results of such a study should give some indication whether the vocational rehabilitation program was effective in rehabilitating the public offender or if the success of the program was attributed to selecting those individuals who would not return to the institution anyway. Another possible method of validating the prediction table would be to score all new inmates who enter the reformatory on the selected factors, making a prediction regarding their probability of rehabilitation success and/or failure, and follow up the cases to determine the accuracy of the predictions.

Additional studies are needed to determine the degree that psychological, biographical, and sociological variables

discriminate between the recidivists and non-recidivists. A highly beneficial study would be one which involves development of four prediction tables using the same population as subjects. One table could be developed using psychological factors, the second using biographical factors, the third using sociological factors, and the fourth, a combination of the three. This procedure would provide a means of comparing the different concepts regarding which kind of variables are most effective in differentiating between success and/or failure with the public offender. Although most research studies have indicated a high degree of similarity among prison populations, the availability of high speed computers, makes the possibility of using multiple measures taken on the same subjects and determining their discriminatory value a reality.

One of the biggest problems encountered in this study was the lack of sufficient data for research purposes. Records maintained at the reformatory contained only basic information, much of which was not adequately documented. Before adequate research can be accomplished in a correctional setting, improved methods of record keeping must be developed. Development of a uniform system of record keeping that could be incorporated into all correctional institutions would appear to be a worthwhile project. Such a procedure would make possible the comparison of inmates from different institutions and could be instrumental in evaluating the

effectiveness of the various types of correctional programs.

Most reported research with the public offender has been devoted to contrasting public offenders with the "normal" citizen. Results of such research are of minimal value in predicting rehabilitation success and/or failure of inmates in a state reformatory unless the researcher is willing to make the assumption that the successful rehabilitant is "normal." While there is some evidence that such similarities do exist, there appears to be more similarities between recidivists and non-recidivists than between the non-recidivists and persons who have never been incarcerated. For this reason, additional research with major emphasis on determining differences among public offenders, and not among offenders and non-offenders, is greatly needed.

Evidence seems conclusive that public offenders, and especially first offenders, are a difficult group to study through MMPI scores. It is equally difficult to predict which inmates will continue in criminal activities. Dahlstrom and Welsh (1960) discussed the need for additional research in this area. Their comments regarding the use of the MMPI for predicting criminal activity are as follows:

Unfortunately no study is available in which large numbers of first offenders have been examined and followed in their criminal or non-criminal histories subsequent to their imprisonment. This sort of study is needed to determine the value of these personality evaluations in understanding and predicting criminal recidivism. A related problem would be the prediction of subsequent criminal activity after any one imprisonment, whether the prisoner has a long history of convictions or not [p. 331].

Research with the Minnesota Multiphasic Personality Inventory (MMPI), using the population from a reformatory vocational rehabilitation program could prove highly beneficial. This population would provide excellent subjects for the purpose of testing the discriminatory power of various subscales of the MMPI on like groups. The fact that this group of inmates would be readily accessible for testing and the fact that some follow-up control could be exercised through the state vocational rehabilitation agency after the inmate's release from the reformatory, would make such research very fruitful. An important research design using the MMPI with this population would be a pretest-posttest (time series) situation. A testing procedure which would involve administering the MMPI when the inmate was committed to the institution, during his incarceration, upon release, and after a certain period of follow-up, should provide valuable research information.

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APPENDIX A
EXCERPTS FROM THE 1968 ANNUAL REPORT OF THE
OKLAHOMA STATE REFORMATORY

Excerpts from Annual Report of the
Oklahoma State Reformatory
for Annual Year 1968

PRISONERS ON BOOKS JANUARY 1ST, 1968

A. In Institution	495
B. Out as Witness	2
C. Out to Hospital	3
	TOTAL 500

PRISONERS ADMITTED DURING THE YEAR OF 1968

A. Re-Billed	8
B. Received by Transfer from OSP	529
C. Returned for Violation of Parole	37
D. Returned from State Hospital	23
E. Returned from Witness	18
F. Returned by Transfer from OSP	4
G. Returned from Escape	15
	TOTAL 634

PRISONERS DISCHARGED DURING THE YEAR OF 1968

A. Conditionally Released	106
B. Discharged by Expiration of Sentence	144
C. Paroled	153
D. Commutation of Sentence	23
E. Transferred to OSP	99
F. Transferred to Hospital	24
G. Escaped	18
H. Out as Witness	19
I. Discharges by Court Order	1
	TOTAL 587

PRISONERS ON BOOKS DECEMBER 31ST, 1968

A. In Institution	542
B. Out to Hospital	2
C. Out to Witness	3
	TOTAL 547

MOVEMENT AFTER DISCHARGE

A. Discharges from Parole	110
B. Discharged from Conditional Release	29
C. Changed from Witness to Escape	1
D. Discharged from Hospital	17
E. Changed from Witness to Conditional Release	1
	TOTAL 158

PERCENTAGE PAROLED DURING THE YEAR 1968

A. Paroled	133
B. Returned for Violation of Parole	47
C. Percentage returned	34%

SENTENCES

3 Months	2
5 Months	1
6 Months	9
9 Months	2
1 Year	76
1½ Years	27
2 Years	143
2½ Years	6
3 Years	89
4 Years	11
4½ Years	1
5 Years	61
5½ Years	1
6 Years	10
6 Years	10
7 Years	9
8 Years	5
9 Years	3
10 Years	17
12 Years	44
12½ Years	1
14 Years	1
15 Years	3
20 Years	5
25 Years	6
30 Years	4
35 Years	2
Life	4
1 to 3 Years	1
3 to 7 Years	3
3 to 9 Years	1
5 to 15 Years	2
5 to 25 Years	1
6 to 18 Years	1
<hr/>	
TOTAL	536

NATIVITY

Alabama	3
Arizona	7
Arkansas	16
California	28
Colorado	3
Florida	2
Georgia	2
Idaho	1
Illinois	6
Indiana	4
Iowa	3
Kansas	15
Kentucky	2
Louisiana	3
Maine	1
Michigan	4
Minnesota	2
Mississippi	2
Missouri	4
Montana	2
Nebraska	4
New Jersey	2
New Mexico	3
New York	2
Nevada	1
N. Carolina	5
Ohio	4
Oklahoma	34
Oregon	2
S. Carolina	2
S. Dakota	1
Tennessee	2
Texas	41
Utah	1
Virginia	1
Washington	3
Wyoming	2
Wisconsin	2
Ireland	1
Canada	3
Germany	1
TOTAL	536

RELIGION

Assembly of God	10
Atheist	3
Baptist	291
Catholic	58
Christian	25
Church of Christ	16
Church of God	7
Espiscopalian	4
Holiness	13
Jehovah Witness	3
Jewish	1
Latter Day St.	1
Lutheran	7
Methodist	36
Norman	4
Muslem	1
Nazarine	14
None	10
Pentacostal	18
Salvation Army	1
TOTAL	536

PARANTAGE

Deceased	10
Together	245
Divorced	103
Separated	58
Mother Only	85
Father Only	35
TOTAL	536

TERMERS

1st Termers	469
2nd Termers	67
TOTAL	536

PRISONERS RECEIVED ACCORDING TO RACE AND AGE

AGE	WHITE	NEGRO	IND.	MEX.	TOTAL
15	2	1			3
16	32	4	4		40
17	48	20	9	3	80
18	50	22	8		80
19	57	25	4	1	87
20	41	22	4	1	68
21	36	13	2	2	53
22	21	12	3		36
23	31	7	2	1	41
24	22	6	1		29
25	4	1			5
26		1			1
27	2		1	1	4
28	1				1
29	3		1		4
30	1				1
31	1				1
32	1				1
33	1				1
TOTAL	<u>354</u>	<u>134</u>	<u>39</u>	<u>9</u>	<u>536</u>

PRISONERS RECEIVED ACCORDING TO RACE AND EDUCATION

GRADE	WHITE	NEGRO	IND.	MEX.	TOTAL
None		1		1	2
3rd				1	1
4th	2			1	3
5th			2	1	3
6th	5	1		1	8
7th	16	1		1	18
8th	59	8	5	2	74
9th	81	18	14		113
10th	78	37	12		127
11th	55	41			96
12th	45	20	6		71
13th	4	2			6
14th	7	5			12
16th	2				2
TOTAL	<u>354</u>	<u>134</u>	<u>39</u>	<u>9</u>	<u>536</u>

OCCUPATIONS

Accountant	1	Laborer	184
Aircraft Mech.	2	Laundry	2
Army	18	Machinist	8
Baker	1	Mason Helper	2
Barber	4	Mechanic	49
Bar Owner	1	Musician	3
Body Worker	2	Nurses Aid	1
Boiler Maker	1	Oil Field Worker	8
Boxer	1	Painter	8
Brick Mason	3	Plumber	7
Butcher	2	Porter	4
Cable Lineman	1	Printer	2
Car Hop	1	Radio Announcer	1
Carpet Layer	6	Ranch Worker	1
Carpenter	19	Ref. Repairman	1
Cement Finisher	3	Roofer	3
Clerk	9	Salesman	5
Computer Programer	1	Seaman	1
Coal Miner	1	Sawmill Worker	1
Construction	117	Service Sta. At.	3
Cook	10	Shoe Repair	3
Dairy	2	Steel Worker	4
Dispatcher	1	Steward	1
Draftsman	1	Stock Worker	1
Dry Cleaner	1	Student	51
Electrician	8	Surveyor	2
Feed Mixer	1	Tailor	1
Farmer	14	Telephone Lineman	1
Fruit Picker	1	Truck Driver	12
Heavy Equipment Op.	2	T. V. Camerman	1
Hospital Orderly	1	T. V. Repairman	1
IBM Operation	1	Waiter	2
Janitor	5	Welder	14
Lab Technician	2	Work Analyst	1
		Upholstery	3

TOTAL 636

CRIMES

Abondoment of Minor Child	1
Armed Robbery	1
Assault	1
Assault with a Dangerous Weapon	14
Assault with Intent to Kill	6
Assault with Intent to Rape	4
Attempted Burglary	8
Attempted Grand Larceny	1
Attempted Forgery 2nd Degree	3
Attempted Larceny of Automobile	1
Attempted Rape	5
Bogus Check	10
Burglary 1st Degree	2
Burglary 2nd Degree	176
Burglary of an Automobile	1
Burglary of Parking Meter	2
Carrying Firearms	2
Con-Joint Robbery	2
Concealing Stolen Property	1
Defrauding an Inn Keeper	1
Defrauding a Hotel	1
Driving While Intoxicated	1
Destroying Public Property	1
Embezzlement	1
Embezzlement by Check	1
Escape from Prison	1
Forgery 2nd Degree	23
Grand Larceny	33
Indecent Proposal to Child	1
Indecent Phone Call	1
Kidnapping	3
Knowingly receiving Stollen Property	2
Larceny of Automobile	36
Larceny of Domestic Animals	4
Larceny from a Person	2
Larceny of Merchandise from Retailor	1
Larceny from Motor Vehicle	1
Manslaughter	1
Manslaughter 1st Degree	6
Murder	3
Obt. Merchandise by B/Check	4
Obt. Money by Faulse & B/Check	1
Obt. Money by Fraud	1
Obt. Prop. by M/U of F & B/Check	1
Obt. Money by False Pretenses	4
Posseion of Forged Inst.	1

Petit Larceny AFCE	1
Possession of Marijuana	8
Possession of Stl. Property	1
Rape 1st Degree	6
Rape 2nd Degree	5
Rec. Stolen Property	8
Robbery 1st Degree	5
Robbery 2nd Degree	5
Robbery by Force & Fear	9
Robbery with Dangerous Weapon	12
Robbery with Firearms	27
Sale of Marijuana	3
Shooting With Intent to Kill	2
UU of Motor Vehicle	50
Uttering a Forged Inst.	15
<hr/> TOTAL	<hr/> 536

APPENDIX B
SUPPLEMENTARY BIBLIOGRAPHY

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SUPPLEMENTARY BIBLIOGRAPHY

The following selected bibliography is presented only as a supplement to the present research study. Although these studies were not necessarily referred to in the content of the research reported in this study, they were reviewed by the researcher. It was felt that such references would be beneficial to others interested in prediction studies dealing with the public offender.

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