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Vocational Education and Recidivism at the Louisiana Correctional Institute for Women.

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VOCATIONAL EDUCATION AND RECIDIVISM
AT THE LOUISIANA CORRECTIONAL INSTITUTE FOR WOMEN

A Dissertation
Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy
in
The School of Vocational Education

by
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B.S., University of Southwestern Louisiana, 1978
M.S., Louisiana State University, 1989
August 1998
DEDICATION

This dissertation is dedicated to my mother, Bernice LeJeune Sanders, and to the memory of my father, the late Mr. Henry Elbert "Cuz" Sanders, Sr. An avid LSU fan for 60 years, as a teen, Cuz sold peanuts in Tiger Stadium in the 1930s. Although he is not here to celebrate this, his first son's victory at his beloved LSU, his spirit remains in my heart and has been a driving force and inspiration since beginning my undergraduate studies at LSU in 1972. He lived and died with "G-o-o-o-o-o Ti-ger" on his lips; and so, I did.
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Finally, I extend my deepest appreciation to my wife. Without Lori's commitment, support, patience, and love for Henry Sanders, the person, this life-long student's dissertation and degree may have been abandoned at several critical junctures.
TABLE OF CONTENTS

DEDICATION ................................................................. ii

ACKNOWLEDGMENTS ......................................................... iii

LIST OF TABLES ............................................................. vi

ABSTRACT ................................................................. viii

CHAPTER I - INTRODUCTION .............................................. 1
    Statement of the Problem ............................................. 4
    Purpose of the Study .................................................. 5
    Objectives of the Study ............................................... 5
    Limitations of the Study ............................................. 7
    Significance of the Study ............................................. 8
    Definition of Terms .................................................... 8

CHAPTER II - REVIEW OF RELATED LITERATURE ............. 11
    Recidivism and Prison Populations .............................. 11
    Federal and State Trends in Incarceration ...................... 12
        Sentencing Patterns ............................................. 13
        Coping with Growing Inmate Populations .................. 13
    Recidivism - An Ambiguous Measure ............................ 14
        A Plethora of Operational Definitions ....................... 14
        The Need for Standardization of Recidivism Measures .... 16
    Recidivism - A Poor Measure, Poorly Measured? ............. 18
        Understanding the Ambiguity .................................. 18
        Questioning Research Integrity ............................... 19
        Specific Difficulties Researching Female Offenders ....... 21
    Considerations for Improving Research Designs ............. 22
        The Importance of Documentation ............................ 23
        Practical Problems in Correctional Research .............. 25
        Prison Classification Systems ................................ 27
        Subject Follow-up Problems .................................... 29
    Recidivism - Summary of Design Considerations ............ 30
        General Considerations ......................................... 30
        Variables Correlating with Recidivism ....................... 33
        The Utility of Action Research in Corrections ............. 34
    Recidivism and Employment ........................................ 36
    Re-Socializing Offenders through Vocational Education .... 39
    Summary ............................................................... 41
    A Synthesis of the Literature ...................................... 41
Reflecting on the Literature to Arrive at an Operational Definition for LCIW Recidivism.

CHAPTER III - METHODOLOGY
- Objectives of the Study
- Population and Samples
- Procedures
  - Data Collection
  - Instrumentation
  - Data Analysis
- Statement of Confidentiality

CHAPTER IV - FINDINGS

CHAPTER V - SUMMARY
- Findings
- Conclusions and Recommendations
- Recommendations for Subsequent Studies

REFERENCES

APPENDIX - RECIDIVISM DATA SHEET

VITA
LIST OF TABLES

Table 1  Description and Comparison of Completion Status by Race .... 67
Table 2  Number of Prior Felony Convictions for All Participants .... 68
Table 3  Description of All Participants on Selected Demographics .... 69
Table 4  Comparison of JMTI Completers and Non-JMTI Participants on Selected Demographics ...................... 70
Table 5  Titles of JMTI Courses Completed .............................. 71
Table 6  Distribution of Non-Recidivists and Recidivists .............. 73
Table 7  Description and Comparison of Recidivism Status by Race .... 73
Table 8  Description of Non-Recidivists and Recidivists on Selected Demographics ................................................. 74
Table 9  Comparison of Non-Recidivists and Recidivists on Selected Demographics ............................................... 76
Table 10  Course Completion Status by Non-Recidivists and Recidivists 77
Table 11  Distribution of Recidivists Groups by Twelve Month Intervals 78
Table 12  Recidivism Rates for JMTI Completers and Non-JMTI Participants ............... 79
Table 13  Comparison of Recidivism Rates for JMTI Completers And Non-JMTI Participants .................. 81
Table 14  Comparison of Non-JMTI Participant Recidivism Rates .......... 82
Table 15  Comparison of JMTI Completer Recidivism Rates ............. 84
Table 16  Relationship between Recidivism Rates and Selected Variables for all Participants ............... 86
Table 17  Relationship between Recidivism Rates and Selected Variables for Non-JMTI Participants ................ 87
ABSTRACT

Recidivism is a phenomenon causing growing concern. When released criminals return to crime, the costs become immeasurable. Victims can never be adequately compensated for personal losses, and the nation cannot halt the spiraling costs of maintaining prisons housing mostly repeat offenders. The nation is spending upwards from 98 billion dollars on crime, annually. Public opinion opposes education for inmates, yet, with the nation's prisons operating near capacity, a millennium approaches that promises another wave of prison construction resulting in exponential leaps in the costs of incarceration.

A marketing concept asserts that attracting people to a product is half the battle. Since repeat offenders are a "captive" audience, they should be simply directed to treatments that reduce their tendencies for subsequent failure in society. Dating back to earliest civilizations, incarceration is not a new concept, yet, discovery of the "cures" for criminal tendency and recidivism remains elusive.

The purpose of this study was to determine if a relationship exists between the reduction of recidivism and the completion of a post-secondary vocational education or GED course. The ex-post facto research was conducted using data on inmates released from the Louisiana Correctional Institute for Women between 1990 and 1994. The participants included 130 inmates completing education courses and a sample of 130 education non-participants. Variables linked with the reduction of recidivism included: Completion of a Vocational Education Course, Number of Prior Felony Convictions, and Age at Release. Specifically, this study showed that
vocational education course completers tended to have lower recidivism rates as compared with education non-participants, with older inmates, and with inmates having fewer prior felony convictions.

An additional finding suggested that education course completers who did recidivate tended to stay out of prison one year longer than education non-participants. Further, the study supports a three-year follow-up period for use in recidivism research.

A model was developed using a discriminant analysis. The model correctly classified 61.5% of the participants.

The study involved an extensive review of literature leading to a rationale for the design. Detailed procedures are provided to assist in the development of future recidivism studies.
CHAPTER I
INTRODUCTION

Each year, the annual cost of crime in the nation steadily grows toward the 100 billion dollar milestone (Maguire & Pastore, 1997). This figure does not include incalculable losses such as physical damages to properties or costs associated with medical or psychological damages to victims of crime. The most shocking news is there are as many released criminals being returned to prisons as the number of new commitments to the nation's penal system (T. Moore, personal communication, December 17, 1997). An especially sensitive issue involves the release of violent offenders who return to society only to commit additional violent offenses (Maguire & Pastore, 1997). As taxpayers continue to provide shelter, food, clothing, medical care, legal counsel, education, and rehabilitation services for first-time and repeat offenders, America continues to pay the price, both in dollars and in blood.

While monetary costs are becoming increasingly prohibitive, it is the moral imperative that brings crime control to the forefront. Public outrage at violent crime and repeat offenders is causing lawmakers to enact extreme measures in the areas of law enforcement, sentencing, corrections, and funding (Armbristor, 1997).

Although education stands on firm ground as part of the solution to the crime problem, legislators are being pressured by public opinion to reduce funding to prison education programs (Armbristor, 1997). The public's perception is that education is but another luxury being served to criminals. Texas Senator Ken Armbrister (1997)
has been feeling public pressure for years and cites the public's perception as the reality that he and fellow legislators are bound by duty to address.

A clear picture of the costs associated with crime and corrections in Louisiana is developed through an examination of sampling estimates from the 1996 and 1997 editions of the *Sourcebook of Criminal Justice Statistics*. According to these sources, in 1993, total expenditures dedicated to the management of crime in Louisiana, including police protection, corrections-incarceration, and judicial and legal expenses, amounted to over one billion dollars. This was substantial in a state where the total budget was 17 billion dollars. Not counting the losses incurred by the victims of crime, in 1992, crime cost each person in Louisiana approximately 256 dollars, ranking 25th among the states. This compared to a national low of 117 dollars per capita in West Virginia and a high of 1,184 dollars per capita in the District of Columbia.

Nationwide, corrections has become an industry experiencing extreme growth. By mid-year 1996, one out of one-hundred sixty-three adults in the United States were incarcerated (Gilliard & Beck, 1997). According to a 1992 Bureau of Justice Statistics (BJS) bulletin, *Justice Expenditure and Employment 1990*, annual Federal justice spending was increasing by 30% while total Federal spending was increasing by only 15%. Combined Federal, State and local government justice spending totaled 79 billion dollars in 1990. The latest information available shows this figure had risen to nearly 98 billion dollars in 1993 (Maguire & Pastore, 1997).
A primary concern in the present study was to provide information that can aid government agencies involved with crime and its correction in making sound decisions regarding the relative fiscal impact that vocational education may have in correcting career criminals. According to average costs in the state agency’s budget for operating the vocational courses at LCIW, it costs less than five dollars per student per instructional day, just under 1,000 dollars per year, to provide education services to inmate students (A. Bell, personal communication, January 23, 1998). Thus, it costs considerably less to educate than to continue to maintain and provide complete living services for inmates; nearly 14,000 dollars per year is spent to maintain each female offender in Louisiana (C. Heckert, personal communication, January 23, 1998). This estimate does not take into account acute care or chronically ill inmates whose medical care can run up costs reaching hundreds of thousands of dollars in any given year.

Considering the link that has been established between economic position/employment status and crime/recidivism, (American Bar Association, 1975; Glaser, 1964; Lambert & Madden, 1975; Lambert & Madden, 1976; Lee, 1981; Macleod, 1965; Peterson & Thomas, 1980; Wilkinson, 1997) it seems logical to assume that prison vocational training programs can contribute to the process of rehabilitating inmates. Presently, there exists little empirical evidence concerning the effect of vocational education on the reduction of prison populations. For incarcerated females, such evidence is virtually non-existent. This is especially alarming when the number of incarcerated females quadrupled between 1980 and
1989 (Bureau of Justice Statistics, 1995). Early estimates suggest that even this overwhelming rate of growth will blush in comparison when the official tallies for the final decade of this century become known.

Until a more comprehensive and ambitious program of research on incarcerated females is established, correction factors which may provide relief to the taxpaying public may not be discovered. This study provides a framework for establishing such a program.

Statement of the Problem

Accelerated investigations must be conducted in order to discover alternative correctional treatments and strategies that will effectively reduce cyclical patterns of criminal behavior, technically referred to as criminal recidivism. Recidivism is best described as repeated criminal behavior that results in some form of judicial and/or correctional intervention (Maltz, 1984). Reducing recidivism would relieve taxpayers of the spiraling monetary burden of re-incarcerating and maintaining repeat offenders.

Presently, there are no permanent, ongoing evaluation programs in Louisiana to assess the impact of vocational and technical education on recidivism of female populations. This researcher has found that legislative budgeting decisions concerning correctional education programming are based mainly upon descriptive data. Empirical data would provide the necessary bench mark for legislators to determine relative funding levels for effective education programs (Armbrister, 1997).

The results of the present study will prove useful to the administration of the Louisiana Correctional Institute for Women (LCIW), the administration of the
Louisiana Technical College Westside Campus, and to correctional educators at large. The findings will provide firm grounding for policy decisions regarding the education of female offenders.

**Purpose of the Study**

The primary purpose of this study was to determine if a relationship exists between LCIW recidivism and the completion of a post-secondary vocational course or completion of a GED course.

The link between employment and the reduction of recidivism has been established (American Bar Association, 1975; Glaser, 1964; Lambert & Madden, 1975; Lambert & Madden, 1976; Lee, 1981; Macleod, 1965; Peterson & Thomas, 1980; Wilkinson, 1997). Guided by the researcher’s belief that vocational education contributes significantly to the development of marketable work skills, the present study explored whether vocational education for inmates at LCIW is a significant factor in lowering recidivism rates.

**Objectives of the Study**

1. Describe and compare a group of JMTI Completers and a sample of Non-JMTI Participants released from LCIW between July 1, 1990, and June 30, 1994, on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Title of JMTI Course Completed.

2. Describe and compare recidivists (JMTI Completers and Non-JMTI Participants re-incarcerated at LCIW within three years of release) and
non-recidivists (JMTI Completers and Non-JMTI Participants not reincarcerated at LCIW within three years of release) on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.

3. Determine and compare one-year, two-year, and three-year LCIW recidivism rates for the comparison groups, JMTI Completers and Non-JMTI Participants.

4. Compare one-year, two-year, and three-year recidivism rates within each of the two comparison groups, JMTI Completers and Non-JMTI Participants.

5. Determine whether there is a relationship between the three-year recidivism rates of both comparison groups and selected variables including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.

6. Determine whether a model exists explaining a significant portion of the variance in LCIW recidivism and selected variables including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.
Limitations of the Study

Neither the Louisiana State Department of Education nor the Department of Public Safety and Corrections are automated to facilitate cross-referencing of their databases. This study was conducted on a paper-file basis by researching both active and inactive records in the archives of the two agencies.

Physical tracking of released ex-offenders was not a part of the follow-up procedure for this study. Although there may be some benefit in interviewing or otherwise surveying recidivists and non-recidivists regarding a variety of related issues, it has been reflected in the literature, and it has been the researcher's experience that contacting ex-offenders is not recommended. Not only would personal follow-up be logistically difficult, it can be a dangerous intrusion on the privacy of the ex-offender as well as a violation of the confidential nature of the ex-offender's criminal records. These factors considered, there would be questionable validity among responses gained through such contacts. For these reasons, the present study is limited to historical data.

Educational levels of individuals in the Non-JMTI Participants group was not investigated. The only source for this information was a self-reported grade level. This grade level is provided by each inmate during the prison intake process. It is the researcher's experience that inmates do not usually provide reliable educational information. Inmates, especially those with experience in the judicial system, often believe that there may be some institutional advantage in understating or overstating their actual grade level. Compounding this problem, some preliminary reviews of the
present intake process show that inmates typically score, on the Test of Adult Basic Education Survey exam, a standardized achievement test, as much as six grade levels below their self-reported educational level (M. Heath, personal communication, December 11, 1997). The current standardized achievement testing program did not exist when the comparison groups in the present study were admitted to LCIW.

Significance of the Study

Presently, there are no permanent, on-going efforts in Louisiana to assess the impact of vocational education on recidivism. The Louisiana Technical College System branch campuses provide vocational education services for the state's prisons. There is no evidence that these schools are maintaining additional information on the graduates of its correctional programs other than required baseline school data (C. Heckert, personal communication, December 19, 1997).

In the Louisiana Department of Public Safety and Corrections database, there are presently no data slots assigned for tracking Technical College System vocational education course participants or graduates. The present study has discovered relationships between education courses and recidivism; therefore, an initiative for establishing an education-recidivism tracking mechanism has been established. The availability of such a database will provide opportunities to move toward experimental designs in correctional education research.

Definition of Terms

Terms are used in corrections and in correctional education which may be unique. Some terms can be understood in the literal sense by most lay-persons;
however, some terms have legal definitions that can vary from state to state. In addition, terms are included which have been operationalized for the purposes of this study.

**Completion Block** - The period of time (July 1, 1988 through June 30, 1994) when the JMTI Completers group completed their course of study.

**Release Block** - The period of time (July 1, 1990 through June 30, 1994) when the participants in the study were released from LCIW.

**DPS&C** - The Department of Public Safety and Corrections. This is the state agency responsible for maintaining the prison system. The agency is often referred to as DOC (Department of Corrections).

**JMTI Completer** - A participant in this study who completed one of four Jumonville Memorial Technical Institute (JMTI) education courses between July 1, 1988 and June 30, 1994 (the Completion Block) in existence at the time of the study. The vocational-technical courses were Custom Sewing, Office Occupations, and Upholstery. The fourth course was GED preparation. A JMTI Completer was someone who completed all phases of an instructional course earning either a Technical Institute Diploma, a GED, or both. These credentials were awarded through JMTI on behalf of the Board of Elementary and Secondary Education, State of Louisiana.

**Non-JMTI Participant** - A participant in this study who did not enter one of the four JMTI education courses in existence at the time of the study.

**RAP Sheets** - The Department of Public Safety and Corrections creates and maintains a Master Prison Record for all inmates admitted to the penal system. The cover
sheets for the Master Prison Record contain a summary of vital statistics on each inmate. The common-use term for the cover sheets is "RAP Sheet". RAP Sheets were accessed by the researcher in the follow-up stages of the study.

**LCIW Recidivist** - Generically, a recidivist is someone who relapses into an unacceptable state. In this study, the operational definition of an LCIW recidivist is an individual released from LCIW between July 1, 1990 and June 30, 1994 (the Release Block), then re-incarcerated at LCIW within three years of release. The reader is cautioned that recidivism measures and calculations of recidivism rates, may not be comparable from study to study. This is due to the multitude of operational definitions indicated in the literature as having been used over the years. Further discussion on the rationale for the operational definition of an LCIW Recidivist is included in the Summary Section of the Review of Literature in this research report.

**One-Year Recidivist** - A research participant who recidivates within one year of release from LCIW.

**Two-Year Recidivist** - A research participant who recidivates within two years of release from LCIW. This is a cumulative figure including both one-year and two-year recidivists.

**Three-Year Recidivist** - A research participant who recidivates within two years of release from LCIW. This is a cumulative figure including one-year, two-year, and three-year recidivists.

**Recidivism Rate** - A recidivism rate is a percentage calculated by dividing the number of recidivists from a group by the number in that group.
CHAPTER II

REVIEW OF RELATED LITERATURE

The literature review has been organized into subsections according to recurring themes that grouped naturally across the various sources reviewed. The themes are presented in an order that supports a rationale for the design of the present study. Literature that defines the magnitude of the problem at hand precedes literature on the use of recidivism as a standard measure. This is followed by the discussion of design considerations, measurement problems, and the current state of research on recidivism as related to employment and vocational education.

Recidivism and Prison Populations

According to Ebarb (1981), when a former inmate is convicted of another crime and sentenced to return to prison, he or she is labeled a recidivist. Recidivism has long been the traditional measure for assessing the effectiveness of rehabilitation efforts (Sechrest, White, & Brown, 1979; Smith, 1997). Conrad (1965) described recidivism as the most understandable gauge applicable to correctional programs. According to Maltz (1984), recidivism has been so widely regarded as the ultimate measure of correctional effectiveness that it is even accepted in instances where it may not be the most appropriate gauge for a particular goal.

Ebarb (1981) described the impact of recidivism as a contributor to the continual increase in the prison population. First-time offenders continue to outnumber those who are successfully released, while repeat offenders account for an increasing percentage of prison commitments. A 1995 Bureau of Justice Statistics
(BJS) Executive Summary reported that, in 1980, one in every six persons admitted to a State prison was a repeat offender. By 1993, one in every three persons admitted was a repeat offender.

Federal and State Trends in Incarceration

The Bureau of Justice Statistics (1995) reported that both the rate of incarceration in State and Federal prisons and the Nation's correctional population rose by more than two and one-half times between 1980 and 1992. In 1993, 2.6% of the U.S. population, nearly 5 million adult men and women, were on parole, on probation, or in jails or prisons. This is an increase of 3 million people since 1980. These figures do not include the numbers of juveniles who were then likewise classified.

Louisiana's rate of incarceration was the highest in the Nation in 1992 (Gilliard, 1993), third highest in 1993 (Gilliard & Beck, 1994), and second highest in 1995 and 1996 (Gilliard & Beck, 1996; Gilliard & Beck, 1997). According to Gilliard (1993), an average of 1000 additional people were incarcerated in Louisiana in each of the years between 1986 and 1992.

Although females account for about 6.3% of the total prison population, their rate of growth has exceeded that of males each year since 1981 (Greenfield & Minor-Harper, 1990). Between 1985 and 1996, the female jail population has increased by an average of 10.2% per year as compared to the 6.1% per year for males (Gilliard & Beck, 1997).
In 1997, the population of female prisoners in Louisiana continued to rise at a faster pace than males. The number of incarcerated women increased by 6.1% while male inmate populations grew by 4.7% (Gilliard & Beck, 1998).

Locally, Orleans Parish experienced an overall increase in its inmate population of 22% and is now operating at 91% capacity. With this increase, Orleans Parish has the second fastest growing inmate population among the 25 largest jail jurisdictions in the nation (Gilliard & Beck, 1998).

**Sentencing Patterns**

Media surveys suggest that crime and recidivism are among the most distressing issues facing society (Gibbs, 1993; Ingrassia, 1993; Roberts, 1994). This concern is reflected in the tendency of the public to support longer prison sentences for offenders (McCorkle, 1993; Zimmerman, Van Alstyne, and Dunn, 1988).

**Coping with Growing Inmate Populations**

Federal and State governments have been trying to keep up with increasing inmate populations with prison construction, while the search continues for treatment programs that can reduce the effects of recidivism. State prisons in Louisiana have been filled to capacity for several years. The percentage of state-sentenced Louisiana inmates housed in local jails or parish prisons due to state prison over-crowding has been the highest in the nation since 1993 (Maguire & Pastore, 1996). Gilliard and Beck (1996) reported that 8,671 inmates, over 34% of the total inmate population, were being held in local jails and parish prisons in 1995 making Louisiana the nation's leader in the prison overflow category, both in number and in rate of increase.
In Louisiana, rising costs in corrections over the next decade will mostly be associated with prison construction efforts aimed at relieving dangerous overcrowding conditions in state penitentiaries, local jails and off-site locations (Assistant Warden C. Hubert, personal communication, November 4, 1997). As an example, construction of a 700 bed hospital is planned for the year 2000 on the grounds of the Elayn Hunt Correctional Center, a state prison for adult males located in St. Gabriel, Louisiana. This hospital will reduce the long-term costs and security risks involved in transporting, housing, and caring for inmates at the local charity hospital.

At the Louisiana Correctional Institute for Women (LCIW), expansion of the food services area is underway, and expansion of the laundry plant is planned (M. Heath, personal communication, December 17, 1997). New dormitories are inevitable as present rooms are triple-bunked. Most parish prisons continue to operate at capacity with female offenders awaiting vacancies at LCIW (M. Heath, personal communication, November 8, 1997). Overall, the costs of local, state, and federal governments' responses to crime will continue to increase (Lindgren, 1992) until criminal recidivism is effectively addressed.

**Recidivism - An Ambiguous Measure**

**A Plethora of Operational Definitions**

Although the implications of recidivism are clear, analysis and empirical comparisons are difficult due to the wide variety of nominal and operational definitions that have been used in past research efforts. A case in point is the recidivism rate reported in the 1995 Bureau of Justice Statistics Executive Summary.
The 33% recidivism rate published in the summary is for probation or parole violators, only. The numbers do not completely reflect return rates for inmates released on either good-time act release dates or full-term dates; these inmates are released free and clear of institutional probation or parole follow-up programs. Neither do the numbers discern between recidivists who technically violated the terms of their parole or probation nor those who committed a new crime for which they were subsequently re-incarcerated. Although Bureau of Justice Statistics publications are among the most comprehensive compilations that exist, it can be seen that even these data are subject to operationalized measures.

Some operational definitions of recidivism include what Barnes and Teeters (1959) call a proneness of criminals to continue a life of crime. Korn and McCorkle (1966) state that offenders who relapse are technically known as recidivists. Johnson (1974) calls a recidivist a person who, after imprisonment and release, commits yet another crime. Even this small sampling of textbook nominal definitions contains ambiguities that must be clarified at the operational level. Measurement of recidivism has been operationalized in terms of the level of contact in the criminal justice system, the sources of data, the way the data are manipulated, the types of crimes that are counted, and the length of the follow-up period.

In terms of the level of contact, some of the most common measures are: re-arrest (Levin, 1971; Maltz, 1984), reconviction (Greenburg, 1975), re-incarceration (Baer, Jacobs, and Carr, 1975), and technical violation of parole rules (Trudel, Morcus, and Wheaton, 1976). Recidivism rates can vary significantly depending on
which operational measure is used. Rahming (1981) measured recidivism using three contact levels: re-arrest, parole revocation, and re-conviction. Rahming found that vocational education had a significant positive effect in the reduction of recidivism when he used reconviction as the operational definition of recidivism. This effect was not significant using the other two levels of contact.

The Need for Standardization of Recidivism Measures

Data for recidivism-related studies come from a variety of sources. Interpol data, FBI records, State institution records, local government records, and reports from individuals involved with the correctional system are sources that have been used extensively (Sechrest et al., 1979). Arrest data have provided additional recidivism measures such as: time elapsed before re-arrest, arrest rate per month, types and seriousness of crimes committed and number of charges. Manipulation of these types of data has formed the basis for arriving at still other operational definitions of recidivism.

Measuring recidivism in terms of the seriousness of the crime of record or the reason for the re-arrest or re-incarceration can result in faulty data (Sechrest et al., 1979). Ex-offenders suspected of having returned to crime may have indeed committed an unspeakable offense, but may be re-incarcerated on the basis of a simple parole violation. Conversely, otherwise innocent ex-offenders have also been re-arrested or re-incarcerated for technical violations of the terms of their parole.

In the researcher's experience, another problem related to classifying offenders according to the seriousness of their crime is the practice of plea bargaining. This is
an accepted practice within many judicial systems. In plea bargaining, perpetrators are allowed to plead guilty to lesser offenses. This decreases costs of prosecution for the government, speeds up the judicial process, and helps to alleviate the myriad of legal problems created when trials are backlogged. This practice can make a serious offender's record appear much better than it truly is.

The literature shows the length of the follow-up period varies considerably. The question of follow-up is logically related to the issue of delayed treatment effect versus the opposite condition, extinction of a treatment effect. While one may argue that the difference between treatment groups may not emerge until a certain amount of time has elapsed, it can be debated that any difference may disappear given sufficient time. In order to avoid the effects of these extremes, the National Advisory Commission on Criminal Justice Standards and Goals (1973) suggested a three-year follow-up for evaluating the impact of correctional treatment programs. According to a 1976 report of that commission, a majority of evaluation programs were using follow-up periods of three years or less. Some studies used follow-up periods as short as six months (Venezia, 1972) and as long as ten years or more (England, 1971). Maltz (1984) has shown that the one-year recidivism rate has become the most frequently used model for recidivism studies.

On an empirical basis, the inconsistencies found in recidivism measures make valid generalizations and inferences quite limited (Maltz, 1984). This has not changed the impact that recidivism measures have had on policy decisions. The reduction of
criminal activity has been the guiding force in establishing corrections policy (Sechrest et al., 1979).

The need for standardization of recidivism measures and data manipulation cannot be overlooked; however, there is no clear way to decide among the various measures that have been used. Certainly, if a comparison of recidivism measures is desired, the procedures for obtaining those measures should be replicated as closely as possible. Ultimately, rehabilitation programs should be evaluated according to their capacity to keep ex-offenders from committing further offenses.

Revised - A Poor Measure, Poorly Measured?

Understanding the Ambiguity

Early evaluations of rehabilitative effects made extensive use of recidivism measures. Many different types of treatments were studied and re-evaluated. The results were often found to be inconsistent or inconclusive. Several studies (Bailey, 1966; Bennett, 1973; Kassebaum, Ward and Wilner, 1971; Martinson, 1974; Robison & Smith, 1971; Slaikeu, 1973; and, Ward, 1973) have concluded that comprehensive reviews of the literature have provided little evidence about the effectiveness of rehabilitation programs. The nation was devoting a large portion of its resources to corrections with little evidence of success (President's Commission on Law Enforcement and Administration of Justice, 1967). A continuous trend of increasing allocation of resources has been documented (Maguire & Pastore, 1997).

Some typical explanations for inconclusive outcomes in behavioral research efforts have been offered (Brook et al., 1979). In terms of correctional treatment
effects, one explanation may be that rehabilitation programs, almost irrespective of their different intervention strategies, settings, or prison populations, actually failed to achieve the intended outcome of reducing further criminal activity. Another explanation may be that the program evaluation techniques were faulty. A third explanation is that the types of interventions used thus far had not been successful, but others not yet tried may prove so. Bernstein and Cardascia (1975) have projected that with past evaluation efforts serving as a guide, future evaluations were likely to be inadequate in design, inept in execution, and non-interpretable in the findings produced.

As an example, one of the most frequently quoted studies on the rehabilitation of female offenders indicated that recidivism was unrelated to education in a women's correctional center (Johnson, Shearon, & Britton, 1974). In retrospect, Ross and Fabiano (1986) reported that these studies did not employ a methodology which could enable conclusions beyond conjecture.

**Questioning Research Integrity**

The criminal justice system of the middle to late seventies debated over its ability to rehabilitate offenders. Despite the inconclusive results of criminal rehabilitation studies, Serril (1974) reported that 63% of the nation's top prison administrators contended that correctional treatment programs could help reduce recidivism.

In the late seventies, the Panel on the Research on Rehabilitative Techniques (PRRT) was formed to complement the work of the Panel on Research of Deterrent
and Incapacitative Effects in order to provide the Parent Committee on Research on Law Enforcement and Criminal Justice with a better perspective on the broad issue of punishment policy (Sechrest et al., 1979). The panel was given the task of reviewing existing evaluations to determine whether they provided a basis for any conclusions about the effectiveness of rehabilitation techniques, clarifying the difficulties in those evaluations, and recommending methodological strategies for further evaluations.

Considerable controversy had been created by Lipton, Martinson, and Wilkes (1975) who advocated a "nothing works" philosophy in criminal rehabilitation. This being a subject of public concern, the PRRT decided to begin their evaluation with a review of this controversial philosophy.

The study by Lipton et al. (1975) was a comprehensive review of the research on criminal rehabilitation. Only studies completed between 1945 and 1967 were reviewed. A rigid set of guidelines was used to determine which studies should be considered for their analysis. The selection procedure resulted in 231 acceptable studies of over 900 reviewed. The PRRT review of the study concluded that the "nothing works" finding was essentially correct.

Based on the assessment of the Lipton et al. (1975) review and other similar findings, the PRRT recommended that more vigorous and systematic research on criminal rehabilitation was needed. Treatments should be based upon strong theoretical rationale, involving total programs rather than isolated treatments. In addition, the strength and integrity of the treatments should be well monitored and documented along with the associated costs of implementation (Sechrest et al., 1979).
Studies have been reviewed that uphold the "nothing works" conclusion (Greenburg, 1977). Moreover, a review of the British and American work on the institutional treatment of juvenile offenders reached similar conclusions about the ineffectiveness of a variety of rehabilitative efforts (Brody, 1976).

In his review of 100 correctional research studies, Logan (1972) concluded that none could be described as adequate in terms of the minimal requirements for a scientifically sound test of effectiveness. Glaser (1964) summarized the state of research in correctional education by stating that no one knows conclusively and precisely its effectiveness.

Another limitation of many of the early studies of correctional treatments involves the question of cost-effectiveness (Reagan, 1976). Some analysis of treatment impact versus the cost of obtaining those results may have been in order. Advocating that nothing works without a discussion of the costs involved in treatments can have serious implications for further research and development. According to Reagan (1976), if equal outcomes is assumed, and the belief exists that nothing works among a given set of interventions, funding agencies may react by supporting the least costly treatments. There can be no guarantee that the least costly will be the most effective treatments for a given inmate population.

Specific Difficulties Researching Female Offenders

According to Bell (1977), little attention has been given specifically to female offender follow-up or the measurement of recidivism. By the mid-seventies, training programs for women were described as poorer in quality, quantity, and variety than
those for men. Many programs seemed to be conceived by men, for men, then given to women as an afterthought (Ross & Fabiano, 1986). The quality and effectiveness of evaluations of such programs are questionable at best (Bell, 1977).

Further complicating research efforts on female populations, research reports and literature concerning programs for female offenders are often buried in the research on men, making them difficult to locate through standard bibliographic retrieval systems (Ross & Fabiano, 1986). The research that could be traced on female offenders in the early 1980s seemed more concerned with issues related to increased crime rates for females, the impact of women's movements, and discrimination against women in the criminal justice system, rather than a focus on potentially effective correctional programs (Ross & Fabiano, 1986).

Considerations for Improving Research Designs

The PRRT, in its review of Lipton et al. (1975) and similar reviews, recognized that the treatments thus far tried were not exhaustive of the possibilities for future correctional studies. Among the logical possibilities for innovative rehabilitative efforts, several seem worthy of consideration for development and evaluation. These include family interventions, interventions directed at the offender early in the individual's criminal career, restitution by the offender, increased post-release financial and counseling support, alternative sentencing and confinement, and vocational training and employment programs (Sechrest et al., 1979).
The Importance of Documentation

Many of the studies done between 1945 and 1967 were described by the PRRT as containing treatment descriptions ranging from sketchy to non-existent (Sechrest et al., 1979). Tharp and Galimore (1979) suggested that treatments should not be evaluated, nor their success reported if there could be no reasonable assurance that the treatments were significantly strong and delivered according to a written plan. They stressed the importance of fully documenting every intervention used to assure accurate replication in a comparable setting.

The importance of treatment specification and full documentation was supported by The Administration on Drug Abuse, Mental Health, and Alcoholism (Klerman, 1978). This agency indicated that a manual would be required as a condition of funding new research on psychotherapy. A description of the research personnel and their training should be included in the documentation. There should be a complete description of the population sample or samples exposed to the intervention, with special note of specific populations for which the treatment is deemed optimal. The protocols for conducting treatment sessions, along with the extent and sources of attrition should be well documented. Descriptions of outcome measures and the sources for obtaining the measures are necessary, especially if an outcome has been operationally defined.

Riecken and Boruch (1974) give three reasons for the importance of treatment specification and monitoring. First, knowledge of intended and actual program operations is an aid to asking the right research questions. Secondly, a well-specified
and adequately monitored treatment program provides a more powerful experimental test. It facilitates answering the question, "why", whether the program succeeds or fails. Thirdly, if a treatment is found to be effective, sufficient documentation will facilitate replication.

With regard to treatment specification and replication, a unique opportunity exists in Louisiana's correctional facilities (C. Heckert, personal communication, March 3, 1997). According to Heckert (1997), each of the state's correctional facilities is host to education programs provided through the Technical College System, a division of the Louisiana Department of Education. Vocational-technical classes are provided which are based upon standardized, state-approved curriculums. Adult Basic Education and GED preparation classes are also provided through the Technical College System. Vocational education and GED courses are taught by instructors who are certified and approved through the Board of Elementary and Secondary Education. All courses are accredited through the Council on Occupational Education. Since all of Louisiana's state correctional facilities are accredited, education programs must also comply with the standards prescribed by the American Correctional Association. Together, these factors provide a degree of structure and uniformity in programming that suggests the mechanism for replication is already in place. For example, a welding course offered at one prison location is operated nearly identically to welding courses at other locations. The opportunity to develop a state-wide view of recidivism as related to vocational education becomes a matter of data coordination.
According to the researcher's experience, in order to sway public opinion and prompt politicians to appropriate funding for substantial prison education programs, significant findings must be documented through targeted consumer and professional media avenues. Due to an alarming absence of such reporting in the literature, it is likely that many potentially viable programs have gone unfunded. Without a solid research base and reporting system, less deserving programs, amounting to no more than baby-sitting or subjective busywork, may have gained subsistence allotments. Further, inadequate or inconclusive research efforts may have hindered attempts to expand effective programs that may simply have been unable to produce sufficient empirical data to prove their positive effects.

Practical Problems in Correctional Research

The PRRT examined some of the practical problems that can be encountered in correctional research (Sechrest et al., 1979). In addition to complexities inherent to behavioral research with humans, it was discovered that many evaluations reviewed by the PRRT were shallow, testing for a single intervention that could be labeled as the magic factor in rehabilitation. Although studies of this type hold an oversimplified view of the task of rehabilitation, they are necessary first steps for determining the effects of isolated treatments on recidivism rates.

Inmates within a correctional system are officially classified by a formal review board according to the prison jobs and living quarters to which they are assigned (C. Heckert, personal communication, November 12, 1997). In this way, a written record is filed on all logistical changes that occur during an inmate's sentence.
These classification systems are employed mainly for prison management and control (Fowler, 1977; T. Moore, personal communication, October 23, 1996).

In more progressive correctional programs, classification is employed in an effort to match offender types with possible treatment sets (Fowler, 1977). For example, a classification board may determine that an inmate should be changed from maximum custody status to medium custody status. This change may allow an inmate previously eligible for limited activities such as hard labor or psychotherapy to become eligible for treatments such as vocational training or counseling. While some studies have considered treatment effects for amenable offenders who had maximum potential to benefit from a particular intervention, others have used the opposite extreme or mixtures of classifications. Regardless of the approach, classification systems can complicate a researcher's control group - experimental group matching scheme.

To further confuse population matching efforts, Fowler (1977) suggests that the classification system itself may have a rehabilitative effect on some subjects. The rationale behind classifying and segregating inmates is that it makes imprisonment more endurable, provides a measure of internal control and security, and decreases the possibility of an offender learning new criminal ways.

In their review of over 900 correctional studies, Lipton et al. (1975) discovered a variety of matching techniques that attempted to control for variables that were thought to be related to recidivism. Comparison groups were often matched on as many suspected variables as possible; however, it was not determined whether
matching succeeded in accounting for differences between treatment and comparison groups. A major problem with matching is the introduction of regression effects into research results (Campbell & Ehrlebacher, 1970). The regression effect occurs when it is not possible to match on all attributes that correlate with recidivism.

Matching amenable offenders to proper treatments has been a difficult task (Glaser, 1975). Palmer (1973) reviewed extensive research that focused on the issue of matching the person administering the treatment with the offender type. In 1975, Palmer showed that both recognized and extraneous variables have made amenability research very difficult if not impossible to interpret conclusively. Wenk and Moos (1976) discovered a number of inconclusive studies involving matching that focused on determining the most appropriate environment in which to conduct various treatments. The PRRT studied various methods of matching populations, but found no evidence of successful matching of treatments and offenders (Sechrest et al., 1979). Even if it could be demonstrated that rehabilitation can work if "amenable" offenders were "appropriately" classified and offered "relevant" treatments administered by "matched" professionals in a "proper" environment, it is unlikely that correctional institutions would have the resources to provide treatments for the large numbers of combinations that would result (Sechrest et al., 1979). Each matching technique can introduce an added amount of error into the research situation.

**Prison Classification Systems**

According to Whitla (1968), the best predictions that have been made are in the area of academic performance where, after a half-century of effort, matching
correlations of about 0.5 are typical. If this is the best that one can expect from intensive experimental situations, there is little hope of achieving much better, given the largely subjective scheme of matching presently conducted by prison classification systems.

Rezmovic (1976) suggests that regression effects can be alleviated by avoiding matching techniques. The best procedure may be to select a natural, intact comparison group that is similar to the treatment group. In this way, the comparison group can be useful in evaluating alternative explanations by carefully studying the variables that can be accessed. If by chance an intact comparison group is selected that happens to possess more of the attributes thought to make it more successful than the treatment group, this should not present a major research problem. If the treated group out-performs the "higher-quality" comparison group, an argument favoring the treatment is further strengthened. This may also direct the researcher to re-evaluate assumptions about those variables that were expected to make a difference, although it may be impossible to differentiate between those variables that correlate and those which do not.

The researcher has discovered and experienced other constraints on research that is inherent to the criminal justice system. Factors such as confidentiality of prison records and education records, changes in sentence lengths, prison conduct records, inmate classification board actions, prison and government administration turnovers, and budgeting changes can make ordinary program implementation, monitoring, and evaluation exceedingly difficult.
Inmates' conduct records can affect their eligibility for treatment programs (T. Moore, personal communication, October 23, 1996). Inmates can also shorten their sentences with good behavior. For those who create problems and violate rules and regulations while incarcerated, custody status can change from minimum or medium custody to maximum custody. Inmates placed in maximum custody status are basically segregated from the population, making them ineligible for structured education programs.

Typically, classification boards are responsible for assigning inmates to treatment programs according to their security risk status. At times, classification board actions can even result in the movement of an offender to another correctional facility, entirely. An investigation into the events leading to classification changes may be helpful in determining what effect a treatment may have had on the decision to reclassify; however, such decisions are often discretionary, difficult to trace, and not usually well-documented. Any of these situations can result in mortality in portions of the population being investigated.

Subject Follow-up Problems

According to Roberts (1971), and T. Moore, (personal communication, October, 28, 1996), studies that rely on follow-up information obtained after an offender's release from prison can encounter a variety of tracking problems. Unlike released parolees, ex-offenders who are released free and clear are seldom required to leave a forwarding address or to keep in touch with their former institution. They often abandon the city in which they lived at the time of arrest. If they do not leave
their city, they may change neighborhoods several times without leaving forwarding addresses. Ex-offenders often reside in areas where safety for the interviewer becomes an additional concern. The ex-offender’s family or neighbors may deny knowing the whereabouts of the individual when approached by a stranger. Many ex-offenders want to be left alone and not reminded of their past, preferring that their families or friends not be exposed to this aspect of their lives. Some are simply suspicious of social science research. Any one or a combination of these problems can lead to incomplete data or even a complete absence of the follow-up information that is vital to an effective evaluation of treatment effects.

Further tracking problems were experienced by Ericson and Moberg (1967) studying the effects of a comprehensive treatment program involving social services, vocational counseling, placement, and psychological services for parolees from a state institution. They felt that the recidivism measure was potentially contaminated by the fact that experimental subjects were under greater supervision than the control group, making them more likely to be caught if they engaged in illegal activities. That study resulted in a finding of no difference between the recidivism rates of the experimental and control groups.

Recidivism - Summary of Design Considerations

General Considerations

It is commonly accepted among researchers that the experimental design is the only true test of hypotheses for establishing cause and effect relationships (Gay, 1981). That failure to randomize in educational research can result in extraneous
sources of variance has been substantially documented (Campbell 1969; Campbell & Boruch, 1975; Campbell & Ehrlebacher, 1970; Campbell & Stanley, 1966; Gilbert, Light, & Mosteller, 1975). Further, to implement a study that will be externally valid, the sample used in the research must be representative of the target population to which generalizations will be made. To further demonstrate external validity, a study should be repeated in another setting on another sample of offenders resulting in comparable findings. The PRRT found that, although many correctional programs had been evaluated in diverse settings with diverse populations, there were almost no attempts at replicating research methods (Sechrest et al., 1979).

Decisions regarding treatment effectiveness largely rest on the results of statistical analyses (Cook & Campbell, 1976). Just as threats to validity can compromise the meaningful interpretation of research results, so do threats to statistical conclusion validity. The degree that statistical results can be interpreted as being the true relationships between treatment and outcome depends on the appropriateness with which statistical tests are chosen and applied.

In his studies of correctional systems, Conrad (1965) found that the correctional staff and equipment needed for laboratory work in the social sciences existed in less than a dozen places in the world. He also pointed out that in very few places had the procedures of elementary statistical accounting been installed. This observation provides some insight into the difficulty of doing correctional research in the sixties and may further explain the failure of early studies to describe conclusively the effects of treatment strategies.
Despite its critical influence on estimates of treatment effects, statistical power seems infrequently understood and almost never determined (Cohen, 1977). The implication of failing to determine whether statistical tests have sufficient power is that it is difficult to distinguish between effective and ineffective programs of offender rehabilitation (Cohen, 1977).

The significance level of a statistical test is the probability level that prescribes the point for rejecting the null hypothesis. Social and behavioral science researchers have traditionally and historically set significance levels at 0.01, 0.05, and 0.10 as the norms, with 0.05 as the recognized standard (Rudolf, Freund, Wilson, 1993). In corrections, as in other areas of research, there is little indication that evaluators recognize that there is nothing sacred about 0.05 (Skipper, Guenther, & Nass 1970).

In studies that seek to identify promising rehabilitation techniques using strict levels of significance, the likelihood of discovering effective treatments is minimal (Skipper et al., 1970). By setting less demanding significance levels, such as 0.15 or 0.20, the power to discern effective programs can be increased. Since increased power is accompanied by an increased risk of accepting an ineffective program, there can be no general rule for setting significance levels. Such decisions must be made according to the expected cost of drawing incorrect conclusions.

Returning to Riecken et al. (1974), full specification of the treatment not only facilitates replication, but lends well to secondary statistical analyses. Various significance levels can be applied to the same data by researchers and program evaluators whose purposes and constraints differ for each potential application.
According to Skipper et al. (1970), it is the nature of the problem under study that should dictate which type of error is to be minimized. If the costs are high of erroneously concluding that a treatment is effective, the evaluator must safeguard against Type I error by setting more rigid significance levels. Conversely, if the costs are high of erroneously concluding that a treatment is not effective, this Type II error should be reduced by relaxing the significance levels.

Statistical power can also be increased by increasing the sample size (Riecken & Boruch, 1977). According to their findings, when study samples are small, a difference reflecting a genuine effect may not be statistically significant, or may even be reversed by sampling fluctuations. Further, with as many as 100 subjects in each of 2 treatment groups, the probability of being able to detect a true difference of 10% in recidivism rates would be only 0.40 (Chasson, 1967). According to Gilbert et al. (1975), treatment groups of 100 cases are rarely encountered in rehabilitation research. For groups of 25 subjects, a true difference of 30% in recidivism rates would be detected approximately 67% of the time.

Variables Correlating with Recidivism

Several factors have been correlated with recidivism that may bear consideration when studying sample populations in correctional research. In an extensive study involving the North Carolina Department of Corrections, Schmidt and Witte (1978) concluded that, of the 13 variables most often tested against recidivism, only five appeared significantly related. The variables that were tested and found not to be significantly related to recidivism were race, sex, alcohol problems, drug
problems, degree of supervision after release, conviction of a crime against property, conviction of a felony, and participation in the North Carolina work release program. The variables found to be significantly related to recidivism were age, educational level, marital status, number of prior convictions, and type of crime committed. More specifically, according to that study, the type of person likely to return to prison most quickly is a young, single person with a low level of educational attainment and many prior arrests. Additional findings on the age variable by Laulicht (1962) show that an individual who is likely to become a recidivist is relatively older than non-recidivists when incarcerated, but released at a younger age than non-recidivists.

The length of time an offender receives training has been indicated by Glaser (1964) as an important variable in evaluating the effectiveness of prison education programs. Laulicht (1962) concluded that high-risk recidivists are those receiving treatment for shorter periods of time. Researchers have been criticized for failure to account for the time subjects spent in treatment programs, again suggesting the importance of this variable for properly evaluating treatment programs.

The Utility of Action Research in Corrections

According to Adams (1975), correctional research has been mainly non-experimental. Survey studies have had more impact on policy decisions than experimental designs (T. Moore, personal communication, October 23, 1996). Sechrest et al. (1979) offer an explanation. Due to a shortage of strong, relevant experimental research being conducted in corrections, decisions had to be made based upon whatever information was available. Of 900 studies reviewed by Lipton et al.
(1975), only 231 were considered sufficiently interpretable to be included in their survey. Of these, less than 80 employed random assignment of subjects.

Other justifications discovered by Sechrest et al. (1979) in reference to choices made about research designs were issues regarding practicality. Experiments are often slow yielding information due to carefully guarded time schedules. In addition, these studies may research treatment effects that are irrelevant or inconsequential with respect to a given set of administrative priorities or policy alternatives. Further, the final reports of experimental research are often too long and complex for administrators to use as a basis for taking positive and immediate action. In some cases, administrators may not be aware that experimental designs yield the strongest inferences and generalizations regarding cause and effect relationships between treatments and variables.

An example of the utility of non-experimental, administrative studies is an evaluation of adult correctional institutions in Louisiana (Thompson, 1981). The purpose of the three-year study was to describe the programs, courses, equipment, and facilities in existence in Louisiana's state prisons and to determine the need for additional funding. The study used as its sample those persons released from Louisiana's adult correctional institutions in 1976. The recidivism rate emerging from that study was based upon ex-offenders returning to a Louisiana Department of Corrections facility or any other state's correctional facility within three years. The Louisiana study employed methods similar to the descriptive designs being used in a majority of correctional research efforts. The bibliography for the study contained
only six references. In the study's review of literature, a variety of recidivism rates were cited and compared without regard for the research methodology.

The 23% recidivism rate for Louisiana that was calculated in the study (Thompson, 1981) compared favorably with other rates that were cited. Based upon the recidivism comparisons in the Thompson study's and upon surveys concerning the needs of existing and prospective treatment programs, a governmental subcommittee made positive decisions regarding subsequent funding that would be made available to vocational programs in Louisiana's adult correctional facilities. Over $2 million in additional appropriations were recommended for fiscal years 1981 through 1985. Another favorable outcome of the study involved the subcommittee securing the cooperation of the Louisiana Department of Labor in coordinating job placement services for offenders who completed vocational training while incarcerated.

Prison administrators and legislators have continued to find enough evidence to maintain traditional treatment programs in the prisons. Researchers with an eye on the prison reform movement felt that a whole new era of research would soon come to pass. They felt that the non-experimental nature of studies was only part of the correctional research dilemma. If existing treatment programs truly were not effective, perhaps innovation was in order (Sechrest, 1979).

Recidivism and Employment

Poverty and lack of employment have been cited as conditions that produce crime in males (Macleod, 1965). Likewise for females, economic factors are a major determinate of criminal activity (American Bar Association, 1975; Lambert &
Madden, 1975). Further, female offenders are generally poor, undereducated, and possess no vocational skills that would allow self-sufficiency.

Most female ex-offenders have to be self-supporting (Haft, 1974; Skoler & McKeown, 1974; Velimesis, 1975). Lambert and Madden (1976) found recidivism rates of 15% for female offenders who maintained steady employment after incarceration. This compared to a 46% recidivism rate for those who did not remain employed.

Employment of female offenders in jobs with adequate salaries appears to be a critical determinant of successful rehabilitation. Stallard, Ehrenreich, & Sklar (1983) believe that for men, poverty is unemployment. This is a condition that can be remedied with a job, while, for women, poverty can exist even though the woman has a job (Stallard et al., 1983).

These arguments are consistent with proponents of a thesis known as "Economic Marginalization" (Naffine, 1987). This theory posits that the lack of substantial employment opportunities for women is more a contributor to criminal activity than the opportunities to offend provided by their increased participation in the workforce.

Lee (1981) concluded that a stable job was more important for a successful release than an ex-offender's enrollment in a correctional education program. However, if the education program prepared the individual for success in that particular field, then the education program can also be deemed a success.
Generally, the number of prison vocational education courses for both men and women has increased (C. Heckert, personal communication, January 17, 1997). Unfortunately, the types of courses that are offered to women may be a manifestation of gender bias. Secretarial, cosmetology, and food services courses are most frequently offered. It is the researcher's experience that such training does not usually lead to high-paying jobs. Nevertheless, they do provide opportunities for women to develop employable skills and to earn money upon release.

Pownail (1969) has shown that the problem of ex-convicts remaining unemployed is not due exclusively to poor skill performance. Employment problems often stem from poor attitudes and behaviors such as hostility, resistance to supervision, and indifference to rules of attendance and punctuality.

Glaser (1964) found that returned violators differ from successful releases on several variables, including employment status. Returned violators were younger and had served longer sentences. Nearly half of Glaser's recidivists were auto thieves. His two groups were similar in marital status, racial composition and previous records. A greater percentage of the failures were unemployed, and more of the successes had jobs that required a skill.

According to Peterson and Thomas (1980), the United States Department of Labor has reported a nearly consistent positive linear relationship between average annual income and parole success. More recently, the American Corrections Association President, Reginald Wilkinson (1997), has made his position clear regarding the firm link between employment and the reduction of recidivism.
Re-Socializing Offenders through Vocational Education

Much has been written about the need to base correctional education on a stronger theoretical framework (Adams, 1975; Cressey, 1958; Glaser, 1973, 1974a, 1974b, 1975a; Gottfredson, 1972; Lejins, 1971; Lejins & Courtless, 1973; Lipton et al., 1975; Nelson & Richardson, 1971; Reed, 1974; Schulman, 1961; Wilkins, 1965). In order to develop solid theories about correctional treatment, it is important for researchers to know which variables seem to influence recidivism rates. This is especially true for studies in which randomization is not possible or feasible. For studies that are of an experimental design, a knowledge of these variables is equally important. Post-randomization analyses can lead to inferences that may support or refute the findings of previous studies, providing further direction to correctional research.

One promising theory of rehabilitation suggested by Martinson (1972) is based upon the need to re-socialize offenders. Ross and Fabiano (1985) found common deficits among offenders that included a lack of social perspective and poor interpersonal problem solving. Incarceration can be seen as a socially damaging event which removes an individual from society at key points in the life cycle. In this age of social flux, skill specialization, and instant information, the released offender may be embarking upon a world of extreme change. To fit into modern society, offenders need skills and attitudes built up in a disciplined manner. According to McCollum (1971), skill training is a simple process as compared to the more important task of reforming personalities that have been socially deformed.
Fox (1971) feels that social education should be built around something tangible in order to be meaningful to the ordinary offender. Fox believes that if the teaching of a trade is used to impart values, work habits, relationships with employers and co-workers, and the need to follow structured patterns and procedures, then the teaching supports social education. According to McCollum (1971), in order for the program to be effective, you must convince students that their individual needs, preferences, and talents will be built upon.

Lowery and Rankin (1969) described vocational education as a process of supplying to an individual a base of knowledge of a society which allows the application of skills intelligently and in correct situations. Since no group situation is like another, vocational class and laboratory relationships are encountered that require the development of social as well as vocational skills.

Vocational education is delivered under conditions that attempt to simulate working environments (T. Moore, personal communication, September 8, 1994). Learning takes place in an environment of interaction, interaction between learner and subject matter, learner and peers, and learner and instructor. Learning situations are directed by instructors who have been gainfully employed for a number of years within their industries. Given these relationships, it may be said that vocational students learn their skills in a highly social environment composed of a wide variety of personality types and situations to which they must adapt (T. Moore, personal communication, October 23, 1996).
For female offenders, a social competence model has been recommended (Chapman, 1980; Ross & Fabiano, 1985). This model views criminal activity in terms of social and economic factors. It takes an educational or developmental approach rather than the medical or disease therapy approach to rehabilitation that has guided many women's correctional programs in the past.

Tharp and Galimore (1979) suggest that research efforts should move toward total programs rather than the testing of isolated and often weak treatments. This suggestion implies that the search for the magic factor should be replaced by the search for and evaluation of the effects of comprehensive correctional treatment programs.

Summary

**A Synthesis of the Literature**

Although there exists a wealth of correctional education research and resources produced between the 1960s and 1970s, interest in the effects of education, particularly vocational education, appears to have declined to a near stand-still. For a profession that has neither definitively proven itself nor been refuted, the general consensus has become a default decision to maintain existing correctional programs at decreased funding levels, and to generate descriptive data for these efforts.

According to the research, it seems logical to assume that a person who receives training that provides them with employable skills may be less likely to become a recidivist than one who receives little or no job training. The relationship
between lower recidivism rates and employment is substantially documented in this researcher’s review of the related literature.

An investigation into the correlation between recidivism and vocational training seems especially suited to existing programs. The cost of implementing a pilot vocational program for experimental study would be quite high. Using an existing course that has settled into its routine and evolved in its methodology seems more feasible, both economically and in terms of treatment consistency.

An advantage in selecting intact groups such as those found in existing correctional education courses is the reduction of regression effects. The strength and integrity of existing, state-operated courses becomes part of public record, as do the costs of administering the courses.

The literature supports a rationale for using vocational education as a correctional treatment. Vocational training situations are further enhanced when administered as near as possible to the offender’s release date (Sechrest et al., 1979), thereby imparting current, marketable, employable skills that will be put into immediate practice. Although there is little in the way of conclusive evidence due to the multitude of variables involved, vocational education has a sound theoretical framework and has been linked with the reduction of recidivism (ABT Associated, 1971; Tracy & Johnson, 1994; Wilson, 1994; Hull, 1995; Ohio Department of Rehabilitation and Correction, 1995).

Finally, the need to re-socialize offenders cannot be overlooked. The hallmark of vocational education, as provided through Louisiana’s post-secondary vocational
education system, is its grounding in occupational reality. Training, equipment, learning environments, and social situations are designed to approximate the conditions that exist in the workplace. Students who succeed in a vocational class can be expected to reap the benefits of their training when they re-enter society through the door provided when employment shapes their new reality.

Reflecting on the Literature to Arrive at an Operational Definition for LCIW Recidivism

The literature challenges the research community to move toward a standardized definition of recidivism and research methods for investigating the effects of education on incarcerated populations. Generally, correctional education research has not advanced in this regard. Fortunately, the literature offers an array of recidivism definitions and considerations which can guide researchers to standardization if only at the local level. Such standardization may allow valid comparisons among research groups, comparisons that can make stronger statements about the relative effects of educational programming. In the present study, the operational definition of measures will allow valid recidivism comparisons while addressing the issue of standardization at the local level.

The operational definition of a recidivist for the present study is an individual re-incarcerated at LCIW. One of the main purposes for calculating recidivism rates was to determine educational program success or failure in terms of taxpayer benefits. Program success, as measured by lowered recidivism rates, translates into taxpayer benefits. Higher recidivism rates translates into non-savings to taxpayers.
The following illustrations serve as the rationale for the decision to operationalize recidivism based strictly upon re-incarceration at LCIW.

Many recidivism studies have used arrest data mainly when constructing prediction models in studies attempting to identify a "likely recidivist" even before the offender is accepted into a particular prison treatment program. Often, when released offenders are re-arrested, they may never reach LCIW. Either they are not convicted, or they remain in the parish jail for a relatively short period of time, making the burden to taxpayers less significant. Another problem with arrest data is that known felons, as a matter of police routine, are often rounded-up when a crime matching their criminal mode of operation is committed in their locality. Using such general arrests as part of the criteria for defining recidivism may not entirely be appropriate.

It is the re-convicted recidivist who becomes a relatively long-term burden to taxpayers. A re-convicted recidivist will return to LCIW for an extended stay which can cost taxpayers an average of 14,000 dollars per year (C. Heckert, personal communication, January 9, 1998).

One of the most debatable points in arriving at an operational definition for a recidivist is whether to include parole violators. Some parole violators return to LCIW because they are re-convicted of a new crime. Conversely, some parole violators return to LCIW because they may have technically violated the terms of their parole. Missing a meeting with a parole supervisor, leaving the geographical area or boundary set in the parole agreement, carrying a firearm, or frequenting bars or other
locations designated as off-limits in the parole agreement are but a few examples of typical, technical parole violations.

Since the two underlying issues are "corrections through education" and "reduction of the burden to taxpayers", all parole returns will be counted as recidivists. The rationale is two-fold. First, the education program works in tandem with the overall "corrections-incarceration experience" in hopes that inmates will learn to follow rules and procedures and to apply knowledge in appropriate situations. Parole rules are well-defined. The consequences of breaking parole rules are also well-defined. If an ex-offender cannot apply good judgement under such a structured arrangement, with full knowledge that violation will result in re-incarceration, then what kind of judgement will this person use when making more difficult decisions where right, wrong, and the consequences are not so well-defined? Secondly, and more importantly, parole violators who return to LCIW, whether for a technical violation or for a new offense, often return for a substantial period of time that will again impose a relatively long-term burden of full support on the taxpayer.

The literature is split on the issue of the length of the follow-up period. One-year and three-year follow-up periods are considered standards. The three-year follow-up has been shown to be the optimal measure and the one-year follow-up has shown the best utility in terms of providing data to government agencies within fiscal cycles. The present study will compare recidivism rates in order to determine whether the length of the follow-up period may be standardized for future LCIW recidivism calculations.
Given these factors together, it follows that the specific operational definition for an LCIW recidivist in the present study is: an inmate released from the Louisiana Correctional Institute for Women between July 1, 1990, and June 30, 1994, (the Release Block) and subsequently re-incarcerated at LCIW prior to July 1, 1997.
CHAPTER III
METHODOLOGY

The present study was conducted in conjunction with an ongoing post-secondary vocational education program for incarcerated females. The ex-post facto study examined the differences in recidivism rates for two groups of inmates. The groups shared common confinement experiences in terms of physical custody/location, availability of and participation in treatment and prison work programs, and visiting privileges at the Louisiana Correctional Institute for Women (LCIW), located in St. Gabriel, Louisiana. The subjects were released from prison during a four-year period between July 1, 1990, through June 30, 1994. The experimental group, incarcerated students who participated in vocational education and GED courses offered by Jumonville Memorial Technical Institute (JMTI), differed from the control group in one major respect, course participation.

The primary purpose of this study was to determine if a relationship exists between the completion of a vocational training or GED course and LCIW recidivism. Physical records on file at the Louisiana Technical College, Jumonville Memorial campus were accessed to obtain data on JMTI education course completers. Physical records at LCIW were accessed to obtain data on Non-JMTI Participants. This chapter describes the procedures that were followed in collecting and analyzing the data. The population and sample are defined, along with the methods of data collection and analysis.
A description of recidivists and non-recidivists was produced as a result of this research. Only those variables indicated in the literature as related to recidivism or of particular interest in the study, namely, Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Completion of a Vocational Education or GED Course, were compared. The components for these efforts are reiterated as the objectives for the study:

Objectives of the Study

1. Describe and compare a group of JMTI Completers and a sample of Non-JMTI Participants released from LCIW between July 1, 1990, and June 30, 1994, on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Title of JMTI Course Completed.

2. Describe and compare recidivists (JMTI Completers and Non-JMTI Participants re-incarcerated at LCIW within three years of release) and non-recidivists (JMTI Completers and Non-JMTI Participants not re-incarcerated at LCIW within three years of release) on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.

3. Determine and compare one-year, two-year, and three-year LCIW recidivism rates for the comparison groups, JMTI Completers and Non-JMTI Participants.
4. Compare one-year, two-year, and three-year recidivism rates within each of the two comparison groups, JMTI Completers and Non-JMTI Participants.

5. Determine whether there is a relationship between the three-year recidivism rates of both comparison groups and selected variables including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.

6. Determine whether a model exists explaining a significant portion of the variance in LCIW recidivism and selected variables including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.

Population and Samples

The target population for this study was female inmates incarcerated in Louisiana. LCIW is the only state prison for women in Louisiana. Since the prison operates at full-capacity, female inmates awaiting an opening at LCIW are temporarily held in parish prisons throughout the state until bed space is available.

Given preliminary estimates provided by the LCIW Records Analyst, the LCIW Education Coordinator, and the JMTI Administrative Secretary, the researcher concluded that adequate group sizes would emerge from the population of inmates in a Release Block, LCIW inmates released between July 1, 1990 and June 30, 1994.
The selection and sampling procedures that were employed for the study are described in the following sub-section. The procedures yielded a group of 130 JMTI Completers from the Release Block. A group of equal size was randomly selected from the Release Block to form the Non-JMTI Participants group.

Procedures

A Master Record (RAP Sheet) is filed on inmates incarcerated through the Louisiana Department of Public Safety and Corrections (DPS&C). The LCIW Records Division maintains physical files containing demographic, arrest and incarceration records. Much of the data contained in the physical files is entered into the DPS&C on-line records system, accessible on-site at LCIW. On-line file searches were conducted by the researcher, and RAP sheets were downloaded from the system. All corrections-related data needed to complete individual Recidivism Data Sheets (see Appendix) was extracted from the RAP Sheets by the researcher in February, 1998.

Education records are on file at the Louisiana Technical College, Jumonville Memorial Campus, formerly titled, the Jumonville Memorial Technical Institute (JMTI). File searches were conducted by the JMTI Administrative Secretary and the researcher in February, 1998. Some files were in the physical archive, while some of the records had been converted to a computer retrieval system. All necessary education-related data was extracted from hard copy files to be posted on the individual Recidivism Data Sheets by the researcher.
Data Collection

Approvals for gathering data related to the study were granted by the Director of the Louisiana Technical College Jumonville Memorial Campus, from the Secretary of the Department of Public Safety and Corrections, and from the Warden of the Louisiana Correctional Institute for Women.

Considering the preliminary estimates of the accessible populations, in order to obtain groups of adequate size, the researcher decided to select a sample of Non-JMTI Participants equal in number to the JMTI Completers group. The Non-JMTI Participants group was selected through a random, interval sampling procedure.

Two controls were employed in the data collection stages of the study. The first involved eliminating inmates from participating as Non-JMTI Participants if they could not have been considered for entry into education courses. The length of time required to complete a JMTI education course was one to two years. Typically, inmates who had less than one year remaining on their sentences were not enrolled in education courses. To be included in the Non-JMTI Participants group, inmates must have been incarcerated for at least as long as subjects in the JMTI Completers group. Not an effort at matching lengths of sentences, the control was meant to equate the groups by eliminating inmates incarcerated for a duration that made them ineligible for education courses.

The second control involved maintaining better tracking of participants after their release from LCIW. In order to be included in the JMTI Completers or Non-JMTI Participants groups, a person with a Louisiana address had to appear as the
inmate’s Emergency Contact listed in the RAP Sheet. The assumption was that released inmates were more likely to remain within the state where their family or social support structure was located. If this Louisiana affiliation was absent, the RAP Sheet was checked for supervision level. If the record showed that the inmate had been released under DPS&C supervision, and her whereabouts were documented in the RAP Sheet for the duration of the specified follow-up period, then the individual could participate in the study, even if released outside of the state. Since re-incarceration at LCIW was set as the criteria for being classified a recidivist, this tracking control provided an added degree of uniformity between the two comparison groups while improving the overall validity of the data.

To begin the selection process, the JMTI Administrative Secretary provided a list of JMTI Completers. The list was pulled from the physical files stored at the school’s administrative campus located in New Roads, Louisiana. The JMTI Completers list included only inmates completing courses during the Completion Block (July 1, 1988 through June 30, 1994). The decision to restrict the data as such was philosophical. If an inmate completed an education course as early as 1988 and was not discharged from LCIW until near the final release date specified in the study, June 30, 1994, her skills may have remained dormant for six years. While it can be theorized that she may still possess some degree of usable or marketable skills after a six-year period, the expectation for her to benefit from unpracticed skills must logically reach a point of diminishing returns. In the present study, that point was defined as six years.
After selecting the JMTI Completers, the LCIW Records Analyst provided a list of all inmates released within the Release Block dates. Those identified as JMTI Completers were removed from this list. From the names remaining on the LCIW release list, an interval sample equal in number to the JMTI Completers group was drawn to form the Non-JMTI Participants comparison group.

The step-by-step procedure for selecting participants for this study is provided as follows:

1. A list of JMTI Completers was secured from the JMTI records.
2. The researcher downloaded and printed RAP Sheets containing pertinent information for the JMTI Completers group.
3. The RAP Sheets were reviewed for:
   a. “Louisiana Affiliation” such as a Louisiana listing as the emergency contact. This control made the study more Louisiana-oriented, imparting an added degree of consistency among inmates selected as subjects. In cases where the records did not directly indicate a “Louisiana-Affiliated” release, but were released under the supervision of the DPS&C throughout the time limits specified for the study, these inmates were also included in the study since their success or failure was constantly being tracked by the Louisiana Department of Public Safety and Corrections.
   b. Whether the inmate had been released in the Release Block since completing a course of study.
4. The selection procedure for JMTI Completers resulted in 130 completers being selected for participation in the study.

5. In order to begin the sampling process for the Non-JMTI Participants group, the names of the 130 released JMTI Completers included in the study were eliminated from the Release Block list.

6. A sample of Non-JMTI Participants was selected directly from the Release Block list through an interval sampling process. The list was compiled in chronological order by date of release; therefore, there was no reason to suspect bias in the six-year span of release listings. The selection interval was determined by dividing the total number of names remaining on the release list by the number of Non-JMTI Participants needed to equal the size of the JMTI Completers group. Because of the screening, selection, and elimination process, it was recognized that more than one interval sampling pass would be required to arrive at a group equal in number to the JMTI Completers group. Prior to each sampling pass, a toss of the coin determined whether the first inmate's name or the second inmate's name would be chosen as the starting point for drawing the interval sample. For each pass, heads indicated selection of the first name; tails indicated selection of the second name. Names were then selected using the calculated interval.

7. After the first group of 130 potential Non-JMTI Participants was sampled, the researcher downloaded and printed RAP Sheets for the group.
8. RAP Sheets were reviewed for:

a. Louisiana Affiliation: This was evidenced by the presence of a Louisiana listing as the “Emergency Contact.”

b. Length of sentence: As a control for extraneous variables, “short-timers” were eliminated from the study; inmates incarcerated for less than one year were not eligible for the control group. The rationale was that if individuals were not incarcerated for at least one year, they may be different from school completers who were incarcerated at LCIW for a year or more. Without having at least one year remaining on her sentence, an inmate would not be selected for enrollment into a vocational education course because she would not have adequate time to develop technical skills required for completing the course of study.

c. Educational Good-Time Credits: These credits are offered as an incentive for inmates’ participation in the education program. This good-time credit results in a shorter sentence. If a RAP Sheet contained this credit, it was an indication that the inmate attended an education course; therefore, the inmate was not included in the study. This step eliminated JMTI attender/non-completers resulting in a virtually untreated comparison group.

d. Whether the inmate was released during the Release Block.

9. For those eliminated due to the control screens for Louisiana affiliation, length of sentence, attender/non-completer status, and non-release, replacements were
selected; steps six through eight of the preceding sampling/selection procedure were repeated until a Non-JMTI Participants group equal in number to the JMTI Completers group was selected.

10. When the sampling/selection procedure resulted in 130 Non-JMTI Participants, the procedure was complete.

With the group of 130 JMTI Completers and the sample of 130 Non-JMTI Participants prepared for analysis, the LCIW Records Analyst provided a list of all individuals admitted to LCIW between July 1, 1990, and June 30, 1997. JMTI Completers and Non-JMTI Participants whose names appeared on this LCIW admissions list were considered LCIW Recidivists for the purposes of this study.

**Instrumentation**

Information regarding whether an individual was a JMTI Completer was provided by JMTI as a list of all completers between July 1, 1988 through June 30, 1994, the Completers Block. Other data for the JMTI Completers group and the Non-JMTI Participants sample originated from inmates' Master Records, which are the official DPS&C records. Data regarding release dates and re-admission dates, for recidivists, originated from the LCIW Records Analyst's July 1, 1990 through June 30, 1997 LCIW admission list. All data, both JMTI and DPS&C, were transferred to an instrument called the Recidivism Data Sheet (see Appendix). The Recidivism Data Sheet (RDS) was developed by the researcher with input from corrections agency personnel, JMTI personnel and the graduate committee. The RDS was designed to gather information relevant for addressing the objectives of the study.
The following items were included on the RDS form:

**Name** of inmate was accessible to the researcher and held confidential. To ensure confidentiality, a coding system was developed for analysis purposes. **DPS&C Number** was required for identifying inmates. Often, a combination of name and DPS&C Number are required to properly identify an inmate who may be re-incarcerated years later.

**Race** was used to investigate the variable recidivism. Although indicated in the literature as a variable that is not of particular consequence (Schmidt & Witte, 1978), with black inmates comprising over 70% of the LCIW population, it was felt that relationships may be discovered that would provide the groundwork for further research while addressing concerns of the LCIW administration. The coding for Race was developed to reflect the level of data available in the LCIW records. It was expected that Black, White, Hispanic, Asian, and Other would be found as the codes used in the data during the time period specified in the study. It was found that codes for Black and White, only, were found in the records

**Number of Prior Felony Convictions** was determined by inspecting Master Records of inmates. Number of Prior Felony Convictions was the number of LCIW felony incarcerating events occurring prior to being selected as a participant in the study.

**Date of Birth** was used to calculate the variable, Age at Release.
Number of Children was used to investigate whether motherhood had an impact on recidivism.

JMTI Completer was specified if it was found that the individual was included on the July 1, 1988 through June 30, 1994 JMTI Completers list.

Title of JMTI Course Completed was specified if it was determined that the individual was a JMTI Completer. This data was indicated as a variable of interest by the administration of the Technical College System.

Non-JMTI Participant was specified if the individual did not enter a JMTI course as indicated by the absence of the individual’s name from the Completion Block list.

LCIW Recidivist was specified if an inmate from the Release Block was re-incarcerated before June 30, 1997.

Release Date was defined as the date an inmate was released from LCIW.

Re-incarceration Date was the date of an LCIW Recidivist’s first re-incarcerating event following release. This date was used in conjunction with the recidivist’s original release date to determine whether she was a one-year, two-year, three-year, four-year, five-year, six-year, or seven-year recidivist.

One-year Recidivist was specified for inmates who were re-incarcerated at LCIW within one year of release.

Two-year Recidivist was specified for inmates re-incarcerated at LCIW within two years of release; this included one-year and two-year recidivists.
Three-year Recidivist was specified for inmates re-incarcerated at LCIW within three years of release; this included one-year, two-year, and three-year recidivists.

LCIW Non-Recidivist was specified if it was found that an inmate from the Release Block was not included on the July 1, 1990 through June 30, 1997 LCIW admissions list.

Comments/Data Gathering Problems was an open-entry comment field where general comments were entered by the researcher.

Data Analysis

Data were collected from the JMTI Completer group and the Non-JMTI Participants sample using the Recidivism Data Sheet (see Appendix). Since both groups shared common confinement experiences at LCIW, and because of the interval sampling procedure employed, it was anticipated that these groups would be homogeneous. The statistical analyses showed they were homogeneous.

Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Title of JMTI Course Completed were independent variables indicated in the review of literature as either having been correlated with recidivism or were considered variables of particular interest. The Alpha level was set “a’ priori” at .05. Analysis of covariance was used to compare the JMTI Completers group and the Non-JMTI Participants group.

Race was based on an ordinal scale in order to identify any and all races indicated in the LCIW records. Title of JMTI Course Completed was based on a
nominal scale in order to identify the various JMTI educational courses completed. Number of Prior Felony Convictions, Age at Release, and Number of Children were accepted as being based upon an interval scale.

Objective One was to describe and compare a group of JMTI Completers and the sample of Non-JMTI Participants released from LCIW between July 1, 1990, and June 30, 1994, (the Release Block) on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Title of JMTI Course Completed.

For Objective One, descriptive data were reported as frequencies and category percentages for nominal data. Variables measured on an interval scale were reported as frequencies, means and standard deviations. Comparison of variables measured on an interval scale was accomplished using the t test or ANOVA according to the number of categories of variables compared. An alpha level of .05 was used for this comparison and for subsequent comparisons in the study. Categorical variables were compared using the Chi-square test of independence.

Objective Two of the study was to describe and compare recidivists (JMTI Completers and Non-JMTI Participants re-incarcerated at LCIW within three years of release) and non-recidivists (JMTI Completers and Non-JMTI Participants not re-incarcerated at LCIW within three years of release) on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.
For Objective Two, descriptive data were reported as frequencies and category percentages for nominal data. Variables measured on an interval scale were reported as frequencies, means, and standard deviations.

Comparison of variables measured on an interval scale was accomplished by using the $t$ test or ANOVA according to the number of variables compared. Categorical data was compared using the Chi-square test of independence.

Objective Three of the study was to determine and compare one-year, two-year, and three-year LCIW recidivism rates for the comparison groups, JMTI Completers and Non-JMTI Participants. In addition, four-year, five-year, six-year, and seven-year recidivism rates were calculated and compared to give a full-range view of recidivism at LCIW.

The number of months to re-incarceration was determined for each LCIW Recidivist in the JMTI Completer group and the Non-JMTI Participant comparison group. Frequencies, means, and standard deviations of recidivism rates were reported for both groups.

LCIW recidivists were categorized as one-year, two-year, three-year, four-year, five-year, six-year, and seven-year recidivists. Seven LCIW Recidivist groups of JMTI Completers and seven LCIW Recidivist groups of Non-JMTI Participants emerged. Individuals re-incarcerated within a one-year period following release were classified as one-year recidivists. Those re-incarcerated within two years of release were classified as two-year recidivists. Those re-incarcerated within three years of release were classified as three-year recidivists. The process was repeated through the
seventh year of data to determine a full range of recidivism. Frequencies and percentages of LCIW Recidivists were reported for each category.

To calculate the one-year recidivism rate for JMTI Completers, the number of one-year recidivists who were JMTI Completers was divided by the total number of JMTI Completers ($n = 130$) in the Release Block (July 1, 1990 through June 30, 1994). To calculate the one-year recidivism rate for Non-JMTI Participants, the number of one-year recidivists from the sample of Non-JMTI Participants was divided by the total number of Non-JMTI Participants ($n = 130$) in the Release Block.

To calculate the two-year recidivism rate for JMTI Completers, the total number of one-year and two-year recidivists who were JMTI Completers was divided by the total number of JMTI Completers in the Release Block. To calculate the two-year recidivism rate for Non-JMTI Participants, the total number of one-year and two-year recidivists from the sample of Non-JMTI Participants was divided by the total number of Non-JMTI Participants in the Release Block.

To calculate the three-year recidivism rate for JMTI Completers, the total number of one-year, two-year, and three-year recidivists who were JMTI Completers was divided by the total number of JMTI Completers in the Release Block. In order to calculate the three-year recidivism rate for Non-JMTI Participants, the total number of one-year, two-year and three-year recidivists in the sample of Non-JMTI Participants was divided by the total number of Non-JMTI Participants in the Release Block.
The process was repeated until four-year, five-year, six-year, and seven-year recidivism rates for both groups were calculated. The four-year recidivism rate for each group was calculated by dividing the total number of one-year, two-year, three-year, and four-year recidivists by the numbers in each Release Block. The five-year recidivism rate for each group was calculated by dividing the total number of one-year, two-year, three-year, four-year and five-year recidivists by the total number in each Release Block. The six-year recidivism rate for each group was calculated by dividing the total number of one-year, two-year, three-year, four-year, five-year and six-year recidivists by the total number in each Release Block. The seven-year recidivism rate for each group was calculated by dividing the total number of one-year, two-year, three-year, four-year, five-year, six-year and seven-year recidivists by the total number in each Release Block.

Next, the calculated recidivism rates for JMTI Completers and Non-JMTI Participants were compared. The correlated $t$ test procedure was used to compare the corresponding pairs of recidivism rates calculated for the two comparison groups.

Objective Four of the study was to compare one-year, two-year, and three-year recidivism rates within each of the two comparison groups, JMTI Completers and Non-JMTI Participants. The comparisons were extended through the seventh year in order to investigate the full range of available recidivism data. The correlated $t$ test procedure was used for the comparisons.

Objective Five of the study was to determine whether there was a relationship between the three-year recidivism rates of both comparison groups and selected
variables including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course. Additional comparisons were made to determine if there was a relationship between the seven-year recidivism rates of both comparison groups and the selected variables. The Pearson Correlation Coefficient was used to determine whether there was a relationship between the variable Whether a Participant Completed a JMTI Education Course and the recidivism rates of both groups.

To determine whether there was a relationship between the variable Race and recidivism rates of the comparison groups, t-tests for independent samples were used.

To determine whether there was a relationship between the variable Number of Prior Felony Convictions and the recidivism rates of both comparison groups, the recidivism rates were compared with the Pearson Correlation Coefficient.

To determine whether there was a relationship between the variable Age at Release and the recidivism rates of both comparison groups, recidivism rates were compared with the Pearson Correlation Coefficient.

Objective Six of the study was to determine whether a model exists explaining a significant portion of the variance in LCIW recidivism and selected variables including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course. Discriminant analysis was employed to accomplish objective six.
Statement of Confidentiality

The names of inmates or ex-inmates participating in this study were not made available to anyone but the researcher. When not in use, data were stored in a locked cabinet in the researcher's home. Following extraction of pertinent data, documents were shredded by the researcher, per instructions of the LCIW Records Analyst.

Specifically, confidentiality is addressed in the written policies of the Louisiana State Department of Education, Louisiana Technical College System, and in the regulations of the Louisiana State Department of Public Safety and Corrections, including the official regulations of the Louisiana Correctional Institute for Women.
CHAPTER IV
FINDINGS

Data was gathered at the Louisiana Correctional Institute for Women (LCIW) in St. Gabriel, Louisiana, and at the Louisiana Technical College Jumonville Memorial Campus. All information pertaining to education course completers was screened and verified by the researcher in records held at the Louisiana Technical College Westside campus, LCIW Branch.

Objective One was to describe and compare a group of JMTI Completers and a sample of Non-JMTI Participants released from LCIW between July 1, 1990, and June 30, 1994, on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Title of JMTI Course Completed. Categorical variables, Race and JMTI Course Completed, were summarized as frequencies and percentages. The Chi-square test of independence was used to determine if the variables Race and Whether a Participant Completed a JMTI Education Course were independent. Interval variables, Prior Felony Convictions, Age at Release, and Number of Children, were summarized as frequencies, means, and standard deviations. Comparison of variables measured on an interval scale was accomplished using the \( t \) test. An alpha level of .05 was used for these and subsequent comparisons in the study.

Of the 260 research subjects in the study, 130 were JMTI Completers and 130 were Non-JMTI Participants. As shown in Table 1, Description and Comparison of Completion Status by Race, the categories of race found to be recorded in the LCIW
Table 1

Description and Comparison of Completion Status by Race

<table>
<thead>
<tr>
<th>JMTI Completion Status</th>
<th>Race</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Black</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>Non-Participant</td>
<td>93</td>
<td>55.0</td>
</tr>
<tr>
<td>Completer</td>
<td>76</td>
<td>45.0</td>
</tr>
<tr>
<td>Total</td>
<td>169</td>
<td>65</td>
</tr>
</tbody>
</table>

Note. Chi Square (df 1) = 4.886, p = .03

inmate records were Black and White, exclusively. Of the 260 subjects, 65% (n=169) were classified as black. The remaining 35% (n = 91) were classified as white. Among 169 black participants, 55% (n = 93) were Non-JMTI Participants, while 45% (n = 76) were JMTI Completers. Among 91 white participants, 40.7% (n = 37) were Non-JMTI Participants, while 59.3% (n = 54) were JMTI Completers.

The Chi-Square test of independence was used to determine if the variables Completion Status and Race were independent. Table 1, Description and Comparison of Completion Status by Race, shows the distribution of the data. The calculated statistic ($X^2 (1) = 4.886, p = .03$) indicates that the variables Completion Status and Race are not independent. The nature of the association between Completion Status and Race is such that the majority (59.3%) of white participants completed their course of study while the majority of black participants (55.0%) were non-completers.
Selected demographic variables Prior Felony Convictions, Age at Release, and Number of Children were described and compared for both research groups, JMTI Completers and Non-JMTI Participants.

As illustrated in Table 2 Number of Prior Felony Convictions, convictions ranged from a low of zero to a high of five prior felony convictions. Among 260 participants, 41.9% (n = 109) were imprisoned at LCIW on their first felony conviction. The remaining participants at least one prior felony conviction; these participants had already recidivated at least once in the State of Louisiana.

Table 2

<table>
<thead>
<tr>
<th>Number of Prior Felony Convictions</th>
<th>Number of Participants</th>
<th>% of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>109</td>
<td>41.9</td>
</tr>
<tr>
<td>1</td>
<td>84</td>
<td>32.3</td>
</tr>
<tr>
<td>2</td>
<td>48</td>
<td>18.5</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>5.8</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>1.1</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Total</td>
<td>260</td>
<td>100</td>
</tr>
</tbody>
</table>

Note. N = 260

As shown in Table 3 Description of Participants on Selected Demographics, the mean Number of Prior Felony Convictions for participants was 0.93, with a standard deviation of 1.00. The mean Age at Release was 31.73 years, with a standard deviation of 6.86.
Table 3

Description of All Participants on Selected Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Felony Convictions</td>
<td>0.93</td>
<td>1.00</td>
</tr>
<tr>
<td>Age at Release</td>
<td>31.70</td>
<td>6.86</td>
</tr>
<tr>
<td>Number of Children</td>
<td>1.99</td>
<td>1.84</td>
</tr>
</tbody>
</table>

Note. N = 260

Table 3 shows that the mean Number of Children for the 260 participants was 1.99, with a standard deviation of 1.84.

For the groups, JMTI Completers and Non-JMTI Participants, selected demographic variables Prior Felony Convictions, Age at Release, and Number of Children were compared. These comparisons were accomplished using the t test procedure. Table 4, Comparison of JMTI Completers and Non-JMTI Participants on Selected Demographics provides comparative statistics including means and standard deviations (SD) for the research groups, along with t-values, degrees of freedom, and 2-tail probabilities.

The mean Number of Prior Felony Convictions was 1.02 for JMTI Completers as compared to 0.84 for Non-JMTI Participants. The computed t-value of -1.49 (df 258) (p = .14) indicated no significant difference between the groups on the variable Prior Felony Convictions. The t-value was calculated using a pooled variance estimate, since the F-value of 1.26 was non-significant. This F-value indicated homogeneity of variance between the research groups regarding the variable Number of Prior Felony Convictions.
Table 4

Comparison of JMTI Completers and Non-JMTI Participants on Selected Demographics

<table>
<thead>
<tr>
<th>Selected Demographic Variables</th>
<th>Completers</th>
<th>Non-Participants</th>
<th>t-value</th>
<th>df</th>
<th>2-tail probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Felony Convictions</td>
<td>1.02</td>
<td>0.84</td>
<td>-1.49</td>
<td>258</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>1.05</td>
<td>0.94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at Release</td>
<td>31.73</td>
<td>31.61</td>
<td>-0.27</td>
<td>258</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>6.49</td>
<td>7.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Children</td>
<td>1.79</td>
<td>2.19</td>
<td>1.76</td>
<td>258</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>1.68</td>
<td>1.96</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 260

The mean Age at Release was 31.73 years for JMTI Completers as compared to 31.61 years for Non-JMTI Participants. The computed t-value of -0.27 (df 258) (p = .78) indicated no significant difference between the groups on the variable Age at Release. The t-value was calculated using a pooled variance estimate, since the F-value of 1.24 was non-significant. This F-value indicated homogeneity of variance between the research groups regarding the variable Age at Release.

The mean Number of Children was 1.79 for JMTI Completers as compared to 2.19 for Non-JMTI Participants. The computed t-value of 1.76 (df 258) (p = .08) indicated no significant difference between the groups on the variable Number of Children. The t-value was calculated using a pooled variance estimate, since the
F-value of 1.35 was non-significant. This F-value indicated homogeneity of variance between the research groups regarding the variable Number of Children.

Table 5, Titles of JMTI Courses Completed, illustrates data on the courses that were completed by the JMTI Completers group. Among the 260 participants, 130 completed JMTI courses. As illustrated in Table 5, the largest group was GED, accounting for 66.2% (n = 86) of the completers. Seventeen inmates (13%) completed the Custom Sewing class; thirteen participants (10%) completed Office Occupations; and eight participants (4.6%) completed the Upholstery class. The remaining 6 inmates (4.6%) completed two separate courses, one of the vocational training courses along with the GED course.

Table 5

<table>
<thead>
<tr>
<th>Title of JMTI Course Completed</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>GED</td>
<td>86</td>
<td>66.2</td>
</tr>
<tr>
<td>Custom Sewing</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Office Occupations</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Upholstery</td>
<td>8</td>
<td>6.2</td>
</tr>
<tr>
<td>GED + Any Vocational Course</td>
<td>6</td>
<td>4.6</td>
</tr>
<tr>
<td>Total</td>
<td>130</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Objective Two was to describe and compare recidivists (JMTI Completers and Non-JMTI Participants re-incarcerated at LCIW within three years of release) and non-recidivists (JMTI Completers and Non-JMTI Participants not re-incarcerated at
LCIW within three years of release) on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.

For Objective Two, descriptive data were reported as frequencies, and category percentages were reported for nominal data. Variables measured on an interval scale were reported as frequencies, means, and standard deviations. Variables measured on an interval scale were compared using the \( t \) test. Categorical data was compared using the Chi-square test of independence.

A review of the data revealed that 59 participants became recidivists by virtue of being re-incarcerated at LCIW within three years of release. The data also revealed that an additional 12 recidivists would have been excluded from the analysis if the three-year recidivism definition described in Objective Two were to be implemented. The intent of this study was to gain the best interpretation possible from variables thought to influence recidivism. For this reason, it was decided that the analyses should include the 12 recidivists who, although re-incarcerated later than three years after discharging from LCIW, were re-incarcerated at LCIW within the overall time limits specified for the study.

As seen in Table 6 Distribution of Non-Recidivists and Recidivists, of the 260 participants, 72.7\% (n = 189) were non-recidivists; they were not re-incarcerated at LCIW within the seven-year follow-up period. Seventy-one participants (27.3\%) were recidivists; they were re-incarcerated at LCIW during the seven-year follow-up.
Table 6

Distribution of Non-Recidivists and Recidivists

<table>
<thead>
<tr>
<th>Group</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Recidivist</td>
<td>189</td>
<td>72.7</td>
</tr>
<tr>
<td>Recidivist</td>
<td>71</td>
<td>27.3</td>
</tr>
<tr>
<td>Total</td>
<td>260</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 7, Description and Comparison of Recidivism Status by Race illustrates the racial composition of the research groups. Among 169 black participants, 72.2% (n = 122) were non-recidivists, while 27.8% (n = 47) were recidivists. Among 91 white participants, 73.6% (n = 67) were non-recidivists, while 26.4% (n = 24) were recidivists.

Table 7

Description and Comparison of Recidivism Status by Race

<table>
<thead>
<tr>
<th>Recidivism Status</th>
<th>Race</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Black</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td>Frequency</td>
</tr>
<tr>
<td>Non-Recidivist</td>
<td>122</td>
<td>67</td>
</tr>
<tr>
<td>Recidivist</td>
<td>47</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>169</td>
<td>91</td>
</tr>
</tbody>
</table>

Note. Chi Square (df 1) = 0.062, p = .80

Non-Recidivists and Recidivists were compared on the variable Race. The Chi-Square test of independence was used to determine whether the variables Race and Recidivism Status were independent. Table 7, Description and Comparison of Recidivism Status by Race, shows the distribution of the data. The calculated statistic
(X² (1) = 0.062, p = .80) indicates that the variables Race and Recidivism Status are independent. Recidivism Status did not vary significantly by Race.

Selected demographic variables Number of Prior Felony Convictions, Age at Release, and Number of Children were described and compared for Non-Recidivists and Recidivists. Table 8, Description of Non-Recidivists and Recidivists on Selected Demographics, illustrates descriptive statistics for Non-Recidivists and Recidivists, along with totals for all participants.

Table 8
Description of Non-Recidivists and Recidivists on Selected Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Non-Recidivists</th>
<th>Recidivists</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Prior Convictions</td>
<td>0.85</td>
<td>0.98</td>
<td>1.16</td>
</tr>
<tr>
<td>Age at Release</td>
<td>32.28</td>
<td>7.24</td>
<td>30.28</td>
</tr>
<tr>
<td>Number of Children</td>
<td>1.93</td>
<td>1.83</td>
<td>2.13</td>
</tr>
</tbody>
</table>

Note. N = 260

The mean Number of Prior Felony Convictions for all 260 participants was 0.93, with a standard deviation of 1.00. The mean Number of Prior Felony Convictions for Non-Recidivists was 0.85 with a standard deviation of 0.98. The mean Number of Prior Felony Convictions for Recidivists was 1.16 with a standard deviation of 1.05.

The mean Age at Release for the 260 participants was 31.73 years, with a standard deviation of 6.86. The mean Age at Release for Non-Recidivists was 32.28...
years with a standard deviation of 7.24. The mean Age at Release for Recidivists was 30.28 with a standard deviation of 5.51.

The mean Number of Children for the 260 participants was 1.99, with a standard deviation of 1.84. The mean Number of Children for Non-Recidivists 1.93 with a standard deviation of 1.83. The mean Number of Children for Recidivists was 2.13 with a standard deviation of 1.86.

Selected demographic variables for Non-Recidivists and Recidivists were compared. These variables included Number of Prior Felony Convictions, Age at Release, and Number of Children. The comparisons were accomplished using the $t$ test procedure.

Table 9, Comparison of Non-Recidivists and Recidivists on Selected Demographics summarizes comparative statistics including group means, standard deviations, t-values, degrees of freedom, and 2-tail probabilities.

The mean Number of Prior Felony Convictions was higher for the Recidivist group (1.16) as compared to Non-Recidivists (0.85). The computed t-value of -2.23 (df 258) ($p = .03$) shows this to be a significant difference. The t-value was calculated using a pooled variance estimate, since the computed F-value of 1.18 was non-significant. This F-value indicated homogeneity of variance between the research groups regarding the variable Number of Prior Felony Convictions.

The mean Age at Release was higher for Non-Recidivists (32.28 years) as compared to Recidivists (30.28 years). The computed t-value of -2.11 (df 258) ($p = .04$) shows this to be a significant difference. The t-value was calculated using a
Table 9

Comparison of Non-Recidivists and Recidivists on Selected Demographics

<table>
<thead>
<tr>
<th>Selected Demographic Variables</th>
<th>Non-Recidivists</th>
<th>Recidivists</th>
<th>t-value</th>
<th>df</th>
<th>2-tail probability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior Felony Convictions</td>
<td>0.85</td>
<td>1.16</td>
<td>-2.23</td>
<td>258</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>0.97</td>
<td>1.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at Release</td>
<td>32.28</td>
<td>30.28</td>
<td>-2.11</td>
<td>258</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>7.24</td>
<td>5.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Children</td>
<td>1.93</td>
<td>2.13</td>
<td>-0.77</td>
<td>258</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td>1.83</td>
<td>1.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 260

pooled variance estimate, since the computed F-value of 1.73 was non-significant.

This F-value indicated homogeneity of variance between the research groups regarding the variable Age at Release.

The mean Number of Children for Recidivists was 2.13 as compared to a mean of 1.93 for Non-Recidivists. The computed t-value of -0.77 (df 258) (p = .45) shows no significant difference between the groups on the variable Number of Children.

The t-value was calculated using a pooled variance estimate, since the F-value of 1.03 was non-significant. This F-value indicated homogeneity between the research groups regarding the variable Number of Children.

Table 10, Course Completion Status by Non-Recidivists and Recidivists, illustrates course completion data for the research groups. As illustrated in Table 10,
Table 10

Course Completion Status by Non-Recidivists and Recidivists

<table>
<thead>
<tr>
<th>Recidivism Group</th>
<th>Completers</th>
<th>Non-Completers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
</tr>
<tr>
<td>Non-Recidivists</td>
<td>101</td>
<td>77.7</td>
<td>88</td>
</tr>
<tr>
<td>Recidivists</td>
<td>29</td>
<td>22.3</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>130</td>
<td>100</td>
<td>130</td>
</tr>
</tbody>
</table>

Among the 260 participants in the study, 27.3% (n = 71) became recidivists. Among 130 Non-JMTI Participants, 32.3% (n = 42) became recidivists, while 22.3% (n = 29) of the 130 JMTI Completers became recidivists. These rates are seven-year recidivism rates, representing all recidivists in the study. A comparative analysis of all categories of recidivism, including one-year, two-year, three-year, four-year, five-year, six-year, and seven-year recidivism rates is provided in Objective Three of this report.

Objective Three of the study was to determine and compare one-year, two-year, and three-year LCIW recidivism rates for both comparison groups, JMTI Completers and Non-JMTI Participants. In addition, four-year, five-year, six-year, and seven-year recidivist distributions and comparisons were included to give a comprehensive view of recidivism at LCIW.

To accomplish this objective, the researcher first determined the total number of recidivists in each of the time frames investigated. The number of months to re-incarceration was determined for each LCIW Recidivist.
Table 11

Distribution of Recidivist Groups by Twelve Month Intervals

<table>
<thead>
<tr>
<th>Recidivist Group</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(First Year) 12 Months or Less</td>
<td>18</td>
<td>25.4</td>
</tr>
<tr>
<td>(Second Year) &gt; 12 Months to 24 Months</td>
<td>23</td>
<td>32.4</td>
</tr>
<tr>
<td>(Third Year) &gt; 24 Months to 36 Months</td>
<td>18</td>
<td>25.4</td>
</tr>
<tr>
<td>(Fourth Year) &gt; 36 Months to 48 Months</td>
<td>6</td>
<td>8.4</td>
</tr>
<tr>
<td>(Fifth Year) &gt; 48 Months to 60 Months</td>
<td>2</td>
<td>2.8</td>
</tr>
<tr>
<td>(Sixth Year) &gt; 60 Months to 72 Months</td>
<td>3</td>
<td>4.2</td>
</tr>
<tr>
<td>(Seventh Year) &gt; 72 Months to 84 Months</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100</td>
</tr>
</tbody>
</table>

As shown in Table 11, of 71 research subjects who became recidivists, the largest group was subjects re-incarcerated at LCIW during their second year of release with 32.4% (n = 23) of the recidivists in this category. Participants re-incarcerated during their first year of release comprised 25.4% (n = 18) of the recidivists, while an additional 25.4% (n = 18) of the recidivists were re-incarcerated during their third year of release. The remaining recidivists were distributed between the four-year, five-year, six-year and seven-year recidivists groups.

After determining the number in each recidivist group category, the researcher broke the data into two groups, JMTI Completers and Non-JMTI Participants. Table 12 Recidivism Rates for JMTI Completers and Non-JMTI Participants provides recidivism rates (RR) expressed as percentages of the number of participants within each group, JMTI Completers (n = 130) and Non-JMTI Participants (n = 130).
Table 12

Recidivism Rates for JMTI Completers and Non-JMTI Participants

<table>
<thead>
<tr>
<th>Recidivism Group</th>
<th>Completers</th>
<th></th>
<th>Non-JMTI Participants</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>RR%</td>
<td>Frequency</td>
<td>RR%</td>
<td>Frequency</td>
<td>RR%</td>
</tr>
<tr>
<td>One-Year Recidivism</td>
<td>6</td>
<td>4.6</td>
<td>12</td>
<td>9.2</td>
<td>18</td>
<td>6.9</td>
</tr>
<tr>
<td>Two-Year Recidivism</td>
<td>16</td>
<td>12.3</td>
<td>25</td>
<td>19.2</td>
<td>41</td>
<td>15.8</td>
</tr>
<tr>
<td>Three-Year Recidivism</td>
<td>22</td>
<td>16.9</td>
<td>37</td>
<td>28.5</td>
<td>59</td>
<td>22.7</td>
</tr>
<tr>
<td>Four-Year Recidivism</td>
<td>27</td>
<td>20.8</td>
<td>38</td>
<td>29.2</td>
<td>65</td>
<td>25.0</td>
</tr>
<tr>
<td>Five-Year Recidivism</td>
<td>28</td>
<td>21.5</td>
<td>39</td>
<td>30.0</td>
<td>67</td>
<td>25.8</td>
</tr>
<tr>
<td>Six-Year Recidivism</td>
<td>28</td>
<td>21.5</td>
<td>42</td>
<td>32.3</td>
<td>70</td>
<td>26.9</td>
</tr>
<tr>
<td>Seven-Year Recidivism</td>
<td>29</td>
<td>22.3</td>
<td>42</td>
<td>32.3</td>
<td>71</td>
<td>27.3</td>
</tr>
</tbody>
</table>

One-year recidivism rates (RRs) are for participants who became recidivists during their first year of release. The remainder of the RRs listed in Table 12 are cumulative. Two-year RRs reflect the number of participants who became recidivists within two years of release; these rates include both one-year and two-year recidivists. Three-year RRs reflect the number of participants who became recidivists within three years of release; these rates include one-year, two-year and three-year recidivists. This method of grouping was repeated until all seven recidivism groups were defined and the RRs calculated.
After calculating the recidivism rates for JMTI Completers and Non-JMTI Participants, the recidivism rates were compared. In order to make comparisons that would include data for all recidivists, the analysis included one-year, two-year, three-year, four-year, five-year, six-year, and seven-year recidivism rates. The $t$ test procedure was used to compare the corresponding pairs of recidivism rates for JMTI Completers and Non-JMTI Participants.

Table 13, Comparison of Recidivism Rates for JMTI Completers and Non-JMTI Participants summarizes comparative statistics for Recidivism Rates (RR) including group means, standard deviations, $t$-values, degrees of freedom, and 2-tail probabilities.

The three-year RR for JMTI Completers was lower (16.9%) as compared to the three-year RR for Non-JMTI Participants (28.5%). The computed $t$-value of 2.23 (df 258) ($p = .03$) shows this to be a significant difference.

All remaining comparisons of the recidivism rate categories were found to be non-significant, with the possible exception of the six-year rate. The six-year RR for JMTI Completers was lower (21.5%) as compared to the six-year RR for Non-JMTI Participants (32.3%). The computed $t$-value of 1.96 (df 258) ($p = .051$) may be considered a statistically significant difference.

Objective Four of the study was to compare one-year, two-year, and three-year recidivism rates within each of the two comparison groups, JMTI Completers and Non-JMTI Participants. In order to allow a comprehensive comparison of all participants who became recidivists during the specified time period, the analysis was
Table 13

Comparison of Recidivism Rates for JMTI Completers and Non-JMTI Participants

<table>
<thead>
<tr>
<th>Recidivism Group</th>
<th>JMTI-Completers (n = 130)</th>
<th>Comparative Statistics</th>
<th>Non-JMTI Participants (n = 130)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean RR%</td>
<td>t-value</td>
<td>df</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-Year Recidivism</td>
<td>4.6</td>
<td>1.47</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>21.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-Year Recidivism</td>
<td>12.3</td>
<td>1.53</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>33.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three-Year Recidivism</td>
<td>16.9</td>
<td>2.23</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>37.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four-Year Recidivism</td>
<td>20.8</td>
<td>1.58</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>40.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five-Year Recidivists</td>
<td>21.5</td>
<td>1.56</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>41.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Six-Year Recidivism</td>
<td>21.5</td>
<td>1.96</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>41.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seven-Year Recidivism</td>
<td>22.3</td>
<td>1.81</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>41.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

extended to include four-year, five-year, six-year, and seven-year recidivists. The correlated \( t \) test procedure was used for the comparisons.

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Table 14 Comparison of Non-JMTI Participant Recidivism Rates illustrates the comparison of recidivism rates (RR) within the Non-JMTI Participants group.

Table 14

Comparison of Non-JMTI Participant Recidivism Rates

<table>
<thead>
<tr>
<th>Non-JMTI Participant Recidivism Rates</th>
<th>Mean RR% SD</th>
<th>t-value</th>
<th>df</th>
<th>2-tail probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Year RR</td>
<td>9.2 29.1</td>
<td>-3.79</td>
<td>129</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Two-Year RR</td>
<td>19.2 39.6</td>
<td>-3.62</td>
<td>129</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Three-Year RR</td>
<td>28.5 45.3</td>
<td>-1.00</td>
<td>129</td>
<td>.32</td>
</tr>
<tr>
<td>Four-Year RR</td>
<td>29.2 45.7</td>
<td>-1.00</td>
<td>129</td>
<td>.32</td>
</tr>
<tr>
<td>Five-Year RR</td>
<td>30.0 46.0</td>
<td>-1.75</td>
<td>129</td>
<td>.08</td>
</tr>
<tr>
<td>Six-Year RR</td>
<td>32.2 47.0</td>
<td>-1.75</td>
<td>129</td>
<td>.08</td>
</tr>
<tr>
<td>Seven-Year RR</td>
<td>32.3 47.0</td>
<td>.00</td>
<td>129</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. N = 130

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As seen in Table 14, Comparison of Non-JMTI Participant Recidivism Rates, the one-year RR mean (9.2%) was compared to the two-year RR mean (19.2%). The computed t-value of -3.79 (df 129) (p = < .001) shows this to be a significant difference. A significant difference was also found between the two-year RR mean (19.2%) and the three-year RR mean (28.5%) with a computed t-value of -3.62 (df 129) (p = < .001). All other RR comparisons for the Non-JMTI Participants group were found to be non-significant. These significant differences help to define the point where recidivism rates do not change. For Non-JMTI Participants, recidivism rates did not vary significantly beyond the third year of release.

Table 15 Comparison of JMTI Completer Recidivism Rates illustrates the comparison of recidivism rates within the JMTI Completers group. As seen in Table 15, the one-year RR mean (4.6%) was compared to the two-year RR mean (12.3%). The computed t-value of -3.28 (df 129) (p = .001) shows this to be a significant difference. A significant difference was found between the two-year RR mean (12.3%) and the three-year RR mean (16.9%) with a computed t-value of -2.50 (df 129) (p = .01). A significant difference was found between the three-year RR mean (16.9%) and the four-year RR mean (20.8%) with a computed t-value of -2.27 (df 129) (p = .03). These significant differences help to define the point where recidivism rates do not change. For JMTI Completers, recidivism rates did not vary significantly beyond the fourth year of release.

Objective Five of the study was to determine whether there was a relationship between three-year recidivism rates of both comparison groups and selected variables.
Table 15

Comparison of JMTI Completer Recidivism Rates

<table>
<thead>
<tr>
<th>JMTI Completer Recidivism Rates</th>
<th>Mean RR % SD</th>
<th>t-value</th>
<th>df</th>
<th>2-tail probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Year RR</td>
<td>4.6 21.1</td>
<td>-3.28</td>
<td>129</td>
<td>.001</td>
</tr>
<tr>
<td>Two-Year RR</td>
<td>12.3 33.0</td>
<td>-2.50</td>
<td>129</td>
<td>.01</td>
</tr>
<tr>
<td>Three-Year RR</td>
<td>16.9 37.6</td>
<td>-2.27</td>
<td>129</td>
<td>.03</td>
</tr>
<tr>
<td>Four-Year RR</td>
<td>20.8 40.7</td>
<td>-1.00</td>
<td>129</td>
<td>.32</td>
</tr>
<tr>
<td>Five-Year RR</td>
<td>21.5 41.3</td>
<td></td>
<td>129</td>
<td>.00</td>
</tr>
<tr>
<td>Six-Year RR</td>
<td>21.5 41.3</td>
<td></td>
<td>129</td>
<td>1.00</td>
</tr>
<tr>
<td>Seven-Year RR</td>
<td>22.3 41.8</td>
<td>-1.00</td>
<td>129</td>
<td>.32</td>
</tr>
</tbody>
</table>

Note. N = 130

including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.
The analysis was extended to include all participants who became recidivists during the time period specified for the study; therefore, seven-year recidivism rates were also used. The Pearson Product Moment correlation coefficient was used to accomplish this objective.

Correlation coefficients were determined for all participants in the study before performing separate analyses with the JMTI Completers and Non-JMTI Participants groups. Table 16, Relationships between Recidivism Rates and Selected Variables for all Participants illustrates correlation coefficients for 130 JMTI Completers and 130 Non-JMTI Participants.

Using the three-year recidivism rate for all participants, the analysis produced one significant correlation. The calculated coefficient between the three-year recidivism rate and the variable Whether a Participant Completed a JMTI Education Course was $r = -0.14$ ($p = 0.03$). This was classified a low negative association (Davis, 1971). The nature of this relationship is such that participants who completed a JMTI education course tended to have lower three-year recidivism rates.

Using the seven-year recidivism rate for all participants, the analysis produced two significant correlations. The calculated coefficient between the seven-year recidivism rate and the variable Number of Prior Felony Convictions was $r = 0.14$ ($p = 0.03$). This was classified a low association (Davis, 1971). The nature of this relationship is such that participants with a lower Number of Prior Felony Convictions tended to have lower seven-year recidivism rates.
Table 16

Relationship between Recidivism Rates and Selected Variables for all Participants

<table>
<thead>
<tr>
<th>Recidivism Category</th>
<th>Selected Variables</th>
<th>n</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Whether a JMTI Course was Completed</td>
<td>260</td>
<td>-.14</td>
<td>.03</td>
</tr>
<tr>
<td>Three-Year Recidivism Rates</td>
<td>Prior Felony Convictions</td>
<td>260</td>
<td>.07</td>
<td>.23</td>
</tr>
<tr>
<td></td>
<td>Age at Release</td>
<td>260</td>
<td>-.11</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>Number of Children</td>
<td>260</td>
<td>.06</td>
<td>.29</td>
</tr>
<tr>
<td></td>
<td>Whether a JMTI Course was Completed</td>
<td>260</td>
<td>-.11</td>
<td>.07</td>
</tr>
<tr>
<td>Seven-Year Recidivism Rates</td>
<td>Prior Felony Convictions</td>
<td>260</td>
<td>.14</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Age at Release</td>
<td>260</td>
<td>-.13</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Number of Children</td>
<td>260</td>
<td>.05</td>
<td>.45</td>
</tr>
</tbody>
</table>

The calculated coefficient between the seven-year recidivism rate and the variable Age at Release was $r = -.13$ ($p = .04$). This correlation was classified a low negative association (Davis, 1971). The nature of this relationship is such that participants who were older at the time of release tended to have lower seven-year recidivism rates.

In order to determine whether a relationship existed between recidivism rates for all participants and the variable, Race, t-tests for independent samples were conducted. The categories of the variable Race were tested against three-year and seven-year recidivism rates. No significant differences were found among the categories of Race on recidivism rates.
Table 17, Relationship between Recidivism Rates and Selected Variables for Non-JMTI Participants illustrates correlation coefficients for 130 Non-JMTI Participants. Using the three-year recidivism rate for Non-JMTI Participants, the analyses produced no significant correlations between recidivism rate and selected variables. Using the seven-year recidivism rate for Non-JMTI Participants, the correlation coefficients likewise revealed no significant correlations between recidivism rate and selected variables.

Table 17
Relationship between Recidivism Rates and Selected Variables for Non-JMTI Participants

<table>
<thead>
<tr>
<th>Recidivism Category</th>
<th>Selected Variables</th>
<th>n</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-Year Recidivism Rates</td>
<td>Prior Felony Convictions</td>
<td>130</td>
<td>.09</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td>Age at Release</td>
<td>130</td>
<td>-.12</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>Number of Children</td>
<td>130</td>
<td>.11</td>
<td>.19</td>
</tr>
<tr>
<td>Seven-Year Recidivism Rates</td>
<td>Prior Felony Convictions</td>
<td>130</td>
<td>.15</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Age at Release</td>
<td>130</td>
<td>-.14</td>
<td>.11</td>
</tr>
<tr>
<td></td>
<td>Number of Children</td>
<td>130</td>
<td>.09</td>
<td>.28</td>
</tr>
</tbody>
</table>

In order to determine whether a relationship existed between recidivism rates for Non-JMTI Participants and the categories of the variable Race, t-tests for independent samples were conducted. The categories of the variable Race were tested against three-year and seven-year recidivism rates. No significant differences were found among the categories of Race on recidivism rates.
Table 18, Relationship between Recidivism Rates and Selected Variables for JMTI Completers illustrates correlation coefficients for 130 JMTI Completers.

Using the three-year recidivism rate for JMTI Completers, the analysis produced no significant correlations between recidivism rate and selected variables.

Using the seven-year recidivism rate for JMTI Completers, the correlation coefficients likewise revealed no significant correlations between recidivism rate and selected variables.

In order to determine whether a relationship existed between recidivism rates for JMTI Completers and the categories of the variable Race, t-tests for independent samples were conducted. The categories of the variable Race were tested against
three-year and seven-year recidivism rates. No significant differences were found among the categories of Race on recidivism rates.

Objective Six of the study was to determine whether a model exists explaining a significant portion of the variance in LCIW recidivism and selected variables including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course. An additional variable was included in the analysis, Geographical Area to Which a Participant was Released from Prison. Discriminant analysis was employed to accomplish this objective. Re-incarceration was used as the dependent variable defining recidivism. Since the present study is ex-post facto and exploratory in nature, stepwise entry was used with the independent variables.

Dummy coding was used to construct yes or no variables defining whether a participant completed a JMTI education course; completers were dummy coded as "2", and Non-JMTI Participants were coded as "1". Similarly, dummy coding was employed for variables denoting the geographical areas in which participants were released from prison.

A review of descriptive statistics was an important first step in interpreting the discriminant analysis. Table 19 Comparison of Means, Standard Deviations, and F-ratios between Groups for Discriminating Variables illustrates the comparison of two groups, recidivists and non-recidivists, on 19 discriminating variables. The comparisons were made using a one-way analysis of variance.
Table 19

Comparison of Means, Standard Deviations, and F-ratios between Groups for Discriminating Variables

<table>
<thead>
<tr>
<th>Discriminating Variable</th>
<th>Group</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Recidivists (n = 189)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean S.D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recidivists (n = 71)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean S.D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed the Office Occupations Course</td>
<td>1.07 .25</td>
<td>1.00 .00</td>
<td>5.20 .02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior Felony Convictions</td>
<td>0.85 .97</td>
<td>1.15 1.05</td>
<td>4.99 .02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at Release</td>
<td>32.28 7.24</td>
<td>30.28 5.51</td>
<td>4.44 .04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed any Education Course</td>
<td>1.53 .50</td>
<td>1.41 .50</td>
<td>3.29 .07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released in Northeast Louisiana</td>
<td>1.11 .31</td>
<td>1.04 .20</td>
<td>2.59 .11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed the Custom Sewing Course</td>
<td>1.08 .27</td>
<td>1.03 .17</td>
<td>2.21 .14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released in Central Louisiana</td>
<td>1.10 .30</td>
<td>1.06 .23</td>
<td>1.24 .27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released in Northwest Louisiana</td>
<td>1.15 .36</td>
<td>1.20 .40</td>
<td>.91 .34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released in the New Orleans Area</td>
<td>1.30 .46</td>
<td>1.35 .48</td>
<td>.75 .39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Children</td>
<td>1.92 1.83</td>
<td>2.13 1.86</td>
<td>.59 .45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released in Southwest Louisiana</td>
<td>1.07 .26</td>
<td>1.10 .30</td>
<td>.42 .52</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Table Continues)
<table>
<thead>
<tr>
<th>Discriminating Variable</th>
<th>Group</th>
<th></th>
<th></th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Non-Recidivists</td>
<td>Recidivists</td>
<td>ratio</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(n = 189)</td>
<td>(n = 71)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
<td></td>
<td>S.D.</td>
<td>S.D.</td>
</tr>
<tr>
<td>Completed any Vocational Course and GED</td>
<td>1.03</td>
<td>1.01</td>
<td></td>
<td>.16</td>
<td>.12</td>
</tr>
<tr>
<td>Released Outside of the State of Louisiana</td>
<td>1.03</td>
<td>1.01</td>
<td></td>
<td>.16</td>
<td>.12</td>
</tr>
<tr>
<td>Released in the Amite Area</td>
<td>1.07</td>
<td>1.06</td>
<td></td>
<td>.25</td>
<td>.23</td>
</tr>
<tr>
<td>Race</td>
<td>1.35</td>
<td>1.34</td>
<td></td>
<td>.48</td>
<td>.48</td>
</tr>
<tr>
<td>Released in the Thibodaux Area</td>
<td>1.03</td>
<td>1.04</td>
<td></td>
<td>.19</td>
<td>.20</td>
</tr>
<tr>
<td>Completed the Upholstery Course</td>
<td>1.03</td>
<td>1.03</td>
<td></td>
<td>.18</td>
<td>.17</td>
</tr>
<tr>
<td>Completed the GED Course</td>
<td>1.32</td>
<td>1.34</td>
<td></td>
<td>.47</td>
<td>.48</td>
</tr>
<tr>
<td>Released in the Baton Rouge Area</td>
<td>1.14</td>
<td>1.14</td>
<td></td>
<td>.35</td>
<td>.35</td>
</tr>
</tbody>
</table>

The groups were found to be significantly different on three variables:

Completion of the JMTI Office Occupations vocational course, Number of Prior Felony Convictions, and Age at Release.

The resulting mean for Completion of Office Occupations was higher for non-recidivists (1.07) as compared to recidivists (1.00). The computed F-ratio of 5.20 (df 258) (p = .02) shows this to be a significant difference. Participants who completed
the Office Occupations course were less likely to become recidivists than those who did not complete this vocational course.

The mean for Prior Felony Convictions was higher for the recidivist group (1.15) as compared to non-recidivists (0.85). The computed F-ratio of 4.99 (df 258) ($p = .02$) shows this to be a significant difference.

The mean Age at Release was higher for non-recidivists (32.28) as compared to recidivists (30.28). The computed F-ratio of 4.44 (df 258) ($p = .04$) shows this to be a significant difference.

Since interdependencies among variables can affect a discriminant analysis, the next step was to examine the independent variables for the presence of multicollinearity. This process involved averaging the separate covariance matrices for the two groups and computing the correlation matrix. This resulted in the pooled within-groups correlation matrix. Meredith (1964), Porebski (1966) and Darlington, Weinberg, and Walberg (1973) favor the use of the within-groups correlation matrices in interpreting the discriminant function because of the stability of the correlations in small to medium-sized groups and because the correlations provide an indication of the variables most closely aligned with the independent variable. Table 20 Pooled Within-Groups Correlation Matrix for Discriminating Variables provides the information for this analysis.

The highest correlations involved the variables Released in the New Orleans Area with Released in Northwest Louisiana (−.30) and the variables Completed any Education Course with Completion of GED (.71).
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>RACE</th>
<th>PFC</th>
<th>RELAGE</th>
<th>CHILD</th>
<th>COMPCRS</th>
<th>GED</th>
<th>SEWING</th>
<th>OFFOCC</th>
<th>UPHOLS</th>
<th>BOTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>RACE(^a)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFC(^b)</td>
<td>.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELAGE(^c)</td>
<td>.03</td>
<td>-.09</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHILD(^d)</td>
<td>-.24</td>
<td>.10</td>
<td>.27</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>COMPCRS(^e)</td>
<td>.14</td>
<td>.11</td>
<td>.00</td>
<td>-.10</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GED(^f)</td>
<td>.08</td>
<td>.11</td>
<td>-.15</td>
<td>-.13</td>
<td>.71</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEWING(^g)</td>
<td>.00</td>
<td>.09</td>
<td>.19</td>
<td>.10</td>
<td>.25</td>
<td>-.19</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFFOCC(^h)</td>
<td>.09</td>
<td>.02</td>
<td>.05</td>
<td>-.05</td>
<td>.21</td>
<td>-.16</td>
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\(^a\) Race of Participant  
\(^b\) Number of Prior Felony Convictions  
\(^c\) Age at Release  
\(^d\) Number of Children  
\(^e\) Completed any JMTI Education Course  
\(^f\) Completed GED Course  
\(^g\) Completed Custom Sewing Course  
\(^h\) Completed Office Occupations Course  
\(^i\) Completed Upholstery Course  
\(^j\) Completed a Vocational Course and GED  

(Table Continues)
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<th>PFC</th>
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k Released to Orleans/Jefferson/Bernard Districts
l Released to Shreveport/Minden Districts
m Released to Baton Rouge District
n Released to Alexandria/Leesville/Natchitoches/Ville Platte Districts
o Released to Monroe/Talullah Districts
p Released to New Iberia/Lafayette/Lake Charles Districts
q Released to Amite District
r Released to Thibodaux District
s Released Outside of Louisiana

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<td>-.03</td>
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</tr>
</tbody>
</table>

Note: N = 260
As illustrated in Table 20, none of the correlations approached 1.00. When correlations do not approach 1.00, this is an indication that there is no serious problem with multicollinearity (Berry & Feldman, 1985; Lewis-Beck, 1980; Schroeder, Sjoquist & Stephan, 1986; Stevens, 1986).

The third step of the discriminant analysis was to examine the summary data. The centroids for the groups were 0.19 for the non-recidivists group and - .51 for the recidivists group. Eight variables entering the model were found to be statistically significant. Among these eight variables, those with the highest standardized canonical discriminant coefficients were Number of Prior Felony Convictions (b = -.54), Age at Release (b = .49), and Completion of the JMTI Office Occupations course (b = .37).

Upon examination of the structure coefficients, six of the eight variables entering the model were found to be substantively significant. It has been suggested that structure coefficients which are at least one-half the value of the highest structure coefficient can be considered substantively significant (Boone, 1988; Stevens, 1986).

In Table 21 Summary Data for the Stepwise Discriminant Analysis, structure coefficients are indicated as s values in the listing of all variables used in the stepwise discriminant analysis. Substantively significant structure coefficients, those at least one-half the value of the highest coefficient, were found for six variables: Completion of the Office Occupations Course (.45), Number of Prior Felony Convictions (- .44), Age at Release (.42), Completion of a JMTI Education Course (.36), Released in Northeast Louisiana (.32), and Completion of the Custom Sewing Course (.29).
Table 21

Summary Data for the Stepwise Discriminant Analysis

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<thead>
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<th>Variables</th>
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Note: N = 260

(Legend of variables provided as footnote to Table 20, pages 93-94)

(Table 21 Continues)
Legend for statistical measures in Table 21:

- $b$ = standardized canonical discriminant function coefficient
- $s$ = pooled within-groups structure correlation coefficients
- $R_c$ = canonical correlation coefficient
- * = indicates that the variable did not enter the stepwise analysis due to insufficient F level or tolerance; therefore, a standardized canonical discriminant function coefficient could not be computed.

The strength of the discriminant function is given by the Eigen-value (.099), by the Wilks’ Lambda (.91), and by the overall canonical correlation ($R_c = .30$) which indicates that the eight variables accounted for approximately 9% of the variability regarding whether the participant became a recidivist.

The next step in interpreting the discriminant analysis was to examine the classification matrix. Table 22 Classification of Cases by the Comprehensive Recidivism Model provides information for this analysis.

Table 22

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Number of Cases</th>
<th>Predicted Group</th>
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<td>Non-Recidivist</td>
<td>Recidivist</td>
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<tr>
<td>Recidivists</td>
<td>71</td>
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<td>35.2%</td>
<td>64.8%</td>
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Percent of Cases Correctly Classified: 61.5%

Note. $N = 260$

The correctly classified cases were examined. Table 22 shows the model did a slightly better job of classifying recidivists, 64.8% ($n = 46$), as compared with the

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rate for correctly classifying non-recidivists, 60.3% (n = 114). Overall, 61.5% of
the cases were correctly classified by the discriminant model, which provides a 23.1%
improvement over chance alone.
CHAPTER V

SUMMARY

The primary purpose of this study was to determine if a relationship exists between the completion of a post-secondary vocational education course and LCIW recidivism. This was accomplished through a process of describing and comparing the variables thought to influence recidivism of inmates at the Louisiana Correctional Institute for Women (LCIW).

An extensive review of the literature was conducted in order to identify variables thought to be worthy of consideration. Although much had been published in the way of treatment programs for incarcerated populations, there exists little conclusive evidence that treatments can reduce recidivism. There were no studies found that investigated the effects of the modern practice of post-secondary vocational education on incarcerated populations. Likewise, it appeared that the inmate population at LCIW had never been subjected to the rigors of scientific analysis regarding the effects of vocational education on recidivism.

A list of variables thought to influence recidivism was developed through the insight gained from the review of literature and with input from the graduate committee, vocational education administrators and instructors, and correctional educators. The variables investigated in the study included: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, Whether a Participant Completed a JMTI Education Course, and Region to Which the Participant was Released from Prison.
The educational courses that were investigated were conducted by a post-secondary vocational-technical school, the Jumonville Memorial Technical Institute (JMTI). The courses included Custom Sewing, Office Occupations, Upholstery, and a GED preparation course. Adult inmate students volunteered for participation in these courses between July 1, 1988 and June 30, 1994. The criteria for entry was identical for all courses with the exception of the Office Occupations course, which enrolled students an average of two grade-levels higher as measured by a standardized instrument used for the assessment of basic academic skills, the Test of Adult Basic Education.

The study was limited to inmates who were either released within the State of Louisiana or released on Parole, their whereabouts being known and documented for the duration of the specified time period.

Some difficulties encountered in conducting the research are worthy of mention:

1. Reference to the inmate’s name was a necessary step in obtaining an inmate’s DOC number. Without the DOC number, the follow-up phase could not have been accomplished. Virtually every LCIW inmate is known by more than one name. Many inmates develop a number of aliases. In addition to aliases, female inmates may have one or more married names in addition to their own maiden names. It was not unusual to reference a record that was cross-referenced under four different names. It was difficult to be sure that you were accessing the

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record of the correct "Jane Smith", to use a fictitious name, when there may have been 35 Jane Smiths in the database. In many instances, bits of data had to be pieced together between the JMTI and LCIW records, such as social security numbers, dates of birth, or hometown references. Given such clues, only then could the researcher re-enter the DOC online database to search for and document the record of the correct individual.

2. When conducting the online records searches, many inmate files were found to be closed. The process for temporarily re-activating these files was complicated and confidential. The re-activation process tripled the time projected for gathering the data.

3. Race was coded to accept any race found in the records. Only "black" and "white" were found in the LCIW records. There may have been cases where Hispanic, Asian, or other races were recorded as black or white, depending possibly upon an inmate's own feeling regarding ethnicity.

4. Although there exists a data slot in the DOC data base titled, "Education", where inmates' self-reported education level/grade level is to be posted, in a majority of cases, there was no information posted.

5. In the JMTI records, largely, there were no references regarding the campus at which a student attended class. In addition, virtually none of the JMTI records contained inmate students' DOC numbers.
Two groups of inmates were studied. The first group was inmates who completed either a JMTI vocational education course, the GED course, or both a vocational course and the GED course between July 1, 1988 and June 30, 1994 (the Completion Block) and were released from LCIW between July 1, 1990 and June 30, 1994 (the Release Block). The second group was a random sample of inmates not participating in a JMTI education course but released during the same Release Block as JMTI Completers.

Data obtained from the JMTI and LCIW records were recorded on the Recidivism Data Sheet (see Appendix). The graduate committee and corrections personnel assisted the researcher in the development of this data sheet. All of the data was factual; no items required subjective judgement either in the original posting of the data by JMTI/LCIW officials or in the researcher’s transcribing of the data. The researcher personally conducted all data gathering and transcription, and no clerical assistants were utilized.

The specific objectives of the research were to:

1. Describe and compare a group of JMTI Completers and a sample of Non-JMTI Participants released from LCIW between July 1, 1990, and June 30, 1994, on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Title of JMTI Course Completed.

2. Describe and compare recidivists (JMTI Completers and Non-JMTI Participants re-incarcerated at LCIW within three years of release) and
non-recidivists (JMTI Completers and Non-JMTI Participants not re-incarcerated at LCIW within three years of release) on selected characteristics including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.

3. Determine and compare one-year, two-year, and three-year LCIW recidivism rates for the comparison groups, JMTI Completers and Non-JMTI Participants.

4. Compare one-year, two-year, and three-year recidivism rates within each of the two comparison groups, JMTI Completers and Non-JMTI Participants.

5. Determine whether there is a relationship between the three-year recidivism rates of both comparison groups and selected variables including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.

6. Determine whether a model exists explaining a significant portion of the variance in LCIW recidivism and selected variables including: Race, Number of Prior Felony Convictions, Age at Release, Number of Children, and Whether a Participant Completed a JMTI Education Course.
Findings

The findings of this study are summarized by objective.

Objective One was accomplished by reviewing frequency distributions and statistical comparisons of the JMTI Completers group and Non-JMTI Participants sample.

1. The participants included 130 JMTI Completers and 130 Non-JMTI Participants. Of these 260 participants, 65% were black, and 35% were white.

2. A majority of black participants (55%) did not complete an education course, while a majority of white participants (59%) did complete an education course. A Chi-Square statistic showed that Completion Status and Race were not independent.

3. Among the 260 participants, 42% were first time felons; 58% of the participants had more than one prior felony conviction. The mean for the Number of Prior Felony Convictions (PFC) was 1.93 with a SD of 1.00.

4. The mean PFC for JMTI Completers was 2.02 with a SD of 1.05. The mean PFC of Non-JMTI Participants was 1.84 with a SD of 0.94. The t-test showed the difference in the Number of Prior Felony Convictions to be non-significant.

5. For all participants, the mean Age at Release was 31.7 years with a SD of 6.86.
6. The mean Age at Release for JMTI Completers was 31.7 years with a SD of 6.49. The mean Age at Release for Non-JMTI Participants was 31.6 years with a SD of 7.24. The t-test showed the difference in Age at Release to be non-significant.

7. The mean Number of Children for all 260 participants was 1.99 with a SD of 1.84.

8. The mean Number of Children for Non-JMTI Participants was 2.19 with a SD of 1.96. The mean Number of Children for JMTI Completers was 1.79 with a SD of 1.68. The t-test showed the difference between Number of Children to be non-significant.

9. Among 130 JMTI Completers, 86 were GED graduates accounting for 66.2% of the completers. Seventeen Custom Sewing graduates comprised 13% of the completers group; thirteen Office Occupations graduates comprised 10% of the completers group; eight Upholstery graduates comprised 6.2% of the completers group; and, six inmates completed both the GED and a vocational class, representing the final 4.6% of JMTI Completers.

Objective Two was accomplished by reviewing frequency distributions and statistical comparisons of recidivists and non-recidivists.

1. Among all 260 participants, 27.3% (n = 71) became recidivists during a seven-year follow-up period.
2. Among 169 black participants, 27.8% (n = 47) were recidivists. Among 91 white participants, 26.4% (n = 24) were recidivists. A chi-square statistic showed that Race and Recidivism were independent.

3. For Recidivists, the mean Number of Prior Felony Convictions (PFC) was 2.16 with a SD of 1.05. This was higher than the mean PFC for Non-Recidivists which was 1.85 with a SD of 0.98. The t-test showed the difference between the Number of Prior Felony Convictions to be significant.

4. The mean Age at Release for Non-Recidivists was 32.3 with a SD of 7.24. This was higher than the mean Age at Release for Recidivists which was 30.3 with a SD of 5.51. The t-test showed the difference between Age at Release to be significant.

5. The mean Number of Children for recidivists was 2.13 with a SD of 1.86. The mean Number of Children for non-recidivists was 1.93 with a SD of 1.83. The t-test showed the difference to be non-significant.

6. Among 130 Non-JMTI Participants, 32.3% (n = 42) became recidivists.

7. Among 130 JMTI Completers, 22.3% (n = 29) became recidivists.

Objective Three was accomplished by computing and comparing recidivism rates for JMTI Completers and non-completers.

1. Among 71 research subjects who became recidivists, 32.4% (n = 23) were re-incarcerated within two years of release.
2. Among 71 recidivists, 25.4% (n = 18) were re-incarcerated within one year of release, and 25.4% (n = 18) subjects became recidivists during their third year of release. The remaining 12 recidivists were re-incarcerated between their fourth and seventh year of release.

3. Recidivism rates were calculated by dividing the number of recidivists in each recidivism group by the total number of participants in the group (n = 130). The three-year recidivism rate for JMTI Completers was 16.9% (n = 22). For Non-JMTI Participants, the three-year rate was 28.5% (n = 37). Calculation of the seven-year recidivism rate, which included all recidivists, resulted in a recidivism rate of 22.3% (n = 29) for JMTI Completers, and a recidivism rate of 32.3% (n = 42) for Non-JMTI Participants.

4. The three-year recidivism rate for JMTI Completers (16.9%) was lower than the three-year rate for Non-JMTI Participants (28.5%). The t-test showed this difference to be significant.

5. The six-year recidivism rate for JMTI Completers (21.5%) was lower than the three-year recidivism rate for Non-JMTI Participants (32.3%). The t-test showed this difference to be significant.

6. The differences between all other recidivism categories (one-year, two-year, four-year, five-year, and seven-year rates) for both groups, JMTI Completers and Non-JMTI Participants, were found to be non-significant.
Objective Four was accomplished using the t-test to compare recidivism rates within the groups, JMTI Completers and Non-JMTI Participants.

1. The comparison of recidivism rates for Non-JMTI Participants revealed significant differences between one-year and two-year rates and between two-year and three-year rates.

2. The comparison of recidivism rates for JMTI Completers revealed significant differences between one-year and two-year rates, two-year and three-year rates, and three-year and four-year rates.

Objective Five was accomplished using the Pearson Product Moment correlation coefficient to determine if relationships exist between recidivism rates and selected variables.

1. For all recidivists, a significant relationship was found between the three-year recidivism rate and the variable, Whether a JMTI Course was Completed. The analysis produced a correlation coefficient of $r = -.14$ ($p = .03$). This low negative association is such that participants who completed a JMTI course tended to have lower three-year recidivism rates.

2. For all recidivists, a significant relationship was found between the seven-year recidivism rate and the variable, Number of Prior Felony Convictions. The analysis produced a correlation coefficient of $r = .14$ ($p = .03$). This low association is such that participants with a lower
Number of Prior Felony Convictions tended to have lower seven-year recidivism rates.

3. For all recidivists, a significant relationship was found between the seven-year recidivism rate and the variable, Age at Release. The analysis produced a correlation coefficient of $r = -0.13$ ($p = 0.04$). This low negative association is such that participants who were older at the time of release tended to have lower seven-year recidivism rates.

4. T-tests for independent samples revealed no significant differences between the recidivism rates of black and white participants.

5. Correlation coefficients revealed no significant relationships between the three-year recidivism rates of Non-JMTI Participants and selected variables Number of Prior Felony Convictions, Age at Release and Number of Children.

6. Correlation coefficients revealed no significant relationships between seven-year recidivism rates of Non-JMTI Participants and selected variables Number of Prior Felony Convictions, Age at Release and Number of Children.

7. Correlation coefficients revealed no significant relationships between three-year recidivism rates of JMTI Completers and selected variables Number of Prior Felony Convictions, Age at Release and Number of Children.
8. Correlation coefficients revealed no significant relationships between seven-year recidivism rates of JMTI Completers and selected variables Number of Prior Felony Convictions, Age at Release and Number of Children.

Objective Six was accomplished using a discriminant analysis to determine if a model exists explaining a significant portion of the variance in LCIW recidivism.

Eight variables entered the discriminant model. Six of these variables were found to be substantively significant including Completion of the Office Occupations Course, Number of Prior Felony Convictions, Age at Release, Completion of a JMTI Education Course, Released in Northeast Louisiana, and Completion of the Custom Sewing Course.

Overall, the model accounted for 9% of the variability regarding whether a participant became a recidivist. The model correctly classified 61.54% of the cases correctly.

Conclusions and Recommendations

The following conclusions are based upon the findings of the study.

Objective One (Descriptive data on JMTI Completers and Non-JMTI Participants)

Conclusion 1A: Black inmate students are less likely to complete a course of study than white inmate students.

Recommendation 1A: Vocational assessment methods, course placement practices, and guidance efforts, must be reviewed.
The Louisiana Technical College Westside Campus (LTCW) is currently the local education provider operating vocational education programs under the auspices of the Louisiana State Department of Education. The Louisiana Correctional Institute for Women (LCIW) also operates education programs at the prison. Both LTCW and LCIW must become involved in a collaborative approach to improving vocational guidance practices.

**Conclusion 1B:** Prison inmates are more often repeat offenders than first-time offenders. A majority of the participants in this study had already been inmates at LCIW, had been released, and were re-incarcerated prior to the time period specified for this study.

**Recommendation 1B:** LCIW should initiate alternative treatment programs for prior offenders. Inmates not electing to attend education courses should receive more intensive interventions designed to impart strategies for reducing recidivism. Inmate students of both LTCW and LCIW education courses, especially those who are recidivists, should receive special counseling from their instructor. The LCIW records division should establish a standard practice of notifying instructors when recidivists are classified to education courses. Special counseling should be provided from a school-to-work perspective putting recidivism reduction in the context of personal and social economics.
Objective Two  (Recidivists and Non-Recidivists)

Conclusion 2A: Recidivists have a higher Number of Prior Felony Convictions than non-recidivists.

Recommendation 2A: Change and/or address new interventions for inmates. Recidivists must be exposed to interventions that reduce the likelihood of further criminal activities and further incidences of recidivism. The Louisiana Legislature must recognize and react to the increasing burden to taxpayers that results from recidivism with positive responses to funding requests for prison education programs. Programs and interventions should include team counseling by LCIW Social Services and education staff and LTCW personnel. In addition, structured classes should be provided by LCIW, exclusively enrolling recidivists. These classes should provide vocational and occupational counseling, life skills, and drug education.

Conclusion 2B: Younger inmates are more likely to return to prison than older inmates.

Recommendation 2B: Further study should be done to validate the age finding. Possible reasons should be sought for recidivism among younger inmates. Interim measures or intervention strategies may include targeting inmates under 30 years of age for mentoring and peer counseling by older inmates nearing release who have shown exemplary conduct, and participation and leadership in self-help and
education programs. Such strategies are considered life skills when considered within the reality of inmates in rehabilitation. The existing LCIW Life Skills education program should assume the responsibility for developing and providing peer counseling and mentoring programs targeted for younger offenders.

**Objective Three** (Recidivism Rates of JMTI Completers and Non-JMTI Participants)

**Conclusion 3A:** A three-year follow-up is the balance point for the most comprehensive and expedient measure of recidivism. A vast majority of recidivists are re-incarcerated within three years of release.

**Recommendation 3A:** The Department of Public Safety and Corrections should accept the three-year recidivism rate as the standard measure of recidivism at LCIW. Recidivism awareness initiatives conducted by both LCIW and LTCW should provide information to inmates advising that their first three years of release are the most critical in terms of their decisions, their actions, and their futures.

**Conclusion 3B:** Inmates who complete education courses have lower three-year recidivism rates than inmates who do not participate in education courses.

**Recommendation 3B:** Education programs must be supported financially and administratively at all levels of government, including the Louisiana Legislature, The State Department of Education, the
Technical College System, the Department of Public Safety and Corrections, and the Louisiana Correctional Institute for Women. This study needs to be replicated to develop an empirical base for determining the impact of vocational education on populations served by Technical College Campuses. Strategies should be developed in a collaborative effort to ensure placement of inmates in appropriate education courses and, most importantly, to retain their enrollment until completion of their course of study. These strategies should include vocational counseling by Technical College and prison personnel. Prison administrations should provide physical space and opportunities for independent study by students and peer-tutoring for students as extra-work and study assignments. Additional incentives and privileges should be extended to students. Some suggestions include the use of honor dormitories, reduction of extra-duty work assignments, extra visiting and phone calls, and time taken off sentencing (in addition to existing educational good-time credits) when an education course is completed.

Objective Four (Comparison of Various Recidivism Rate Categories)

Conclusion 4A: Among recidivists, the offender who does not participate in an education course will return to prison sooner that the offender who completes an education course. The point of diminishing returns in recidivism research may be defined in terms of the use of a
three year follow-up for groups not participating in education courses and a four-year follow-up for completers of education courses.

**Recommendation 4A:** Further research on the variable length of follow-up should be conducted to validate the utility of three-year and four-year follow-up periods for inmate populations in Louisiana. As a starting point, The Department of Public Safety and Corrections should conduct a large-scale statistical analyses exploring the differences in recidivism rates using a variety of follow-up periods.

**Objective Five  (Relationships Between Recidivism Rates and Selected Variables)**

**Conclusion 5A:** Inmates who complete an education course are less likely to become recidivists.

**Recommendation 5A:** As extensively noted in Recommendation 3B, education programming should be supported at all levels of government in terms of administration and funding. Existing courses should be expanded and new courses should be initiated, as indicated by employing industries. The Department of Public Safety and Corrections should institute additional incentives to encourage inmates to become involved in both formal and informal education and self-help programs.

**Conclusion 5B:** Inmates with fewer prior felony convictions tend to have lower recidivism rates.
**Recommendation 5B:** As extensively noted in Recommendation 2A, the Louisiana Legislature, LCIW, LTCW, and prison administrators at large must realize that recidivists must be exposed to special interventions aimed directly at reducing recidivism. Both in-school and self-help interventions should be developed and enhanced. Inmates who have been re-incarcerated should be exposed to special treatments that will address the issue of recidivism. Topics such as the impact of recidivism on their lives, their families, their economic situation, the economic impact upon society, and the consequences of habitual offending should be investigated.

**Conclusion 5C:** Inmates who are older at release are less likely to become recidivists.

**Recommendation 5C:** Further research on this variable is indicated. For both older and younger subjects, a variety of confounding variables can add degrees of uncertainty to this analysis. The Department of Public Safety and Corrections should conduct a large-scale statistical analyses exploring the differences in recidivism rates among groups of varying ages.

**Conclusion 5D:** Race does not affect Recidivism Rates.

**Recommendation 5D:** Pre-service and inservice training should incorporate a racial awareness and stereotyping avoidance component.
into the appropriate parts of the curriculum. Instructors and students of all races should be exposed to these interventions.

**Conclusion 5E:** Lower recidivism rates can be expected for completers of education courses as compared to non-completers.

**Recommendation 5E:** As extensively discussed in Recommendation 3B, education programs must be supported financially and administratively at all levels of government, including the Louisiana Legislature, the State Department of Education, the Technical College System, the Department of Public Safety and Corrections, and the Louisiana Correctional Institute for Women. As previously discussed, replication of this study by other Technical College campuses is recommended. Strategies should be developed in a collaborative effort to ensure proper course placement and completion by inmate students. Strategies should include vocational counseling; provision of physical space for activities; opportunities for independent study and peer-tutoring; education incentives including the use of honor dormitories, reduction of extra-duty work assignments, extra visiting and phone calls, and time taken off sentencing when an education course is completed.

**Objective Six**  (Discriminant Analysis used to Determine if a Model Exists Explaining a Portion of the Variance in Recidivism)
Conclusion 6A: A model can be used to explain differences in recidivism rates. The discriminant analysis provided a cross-check on findings previously discussed regarding the variables Number of Prior Felony Convictions and Age at Release. Recidivists tended to have a higher Number of Prior Felony Convictions and were slightly younger than non-recidivists. There was a significant difference between recidivists and non-recidivists on the variable, Completion of the Office Occupations vocational education course. Inmates completing this course were less likely to become recidivists than inmates who did not complete the course. On this finding, the reader is cautioned. The Office Occupations course was more selective in recruiting students, requiring slightly higher standardized test scores for entry than other education courses included in the study.

Recommendation 6A: Continued administrative support and funding for the Office Occupations course is necessary. Since the LTCW Office Occupations course was more selective in recruiting students, requiring slightly higher standardized test scores for entry than other education courses included in the study, further investigation into the combined effects of higher academic entry levels combined with completion of any vocational education course may enhance interpretation of this finding.
Conclusion 6B: The discriminant model, explains a portion of the variability in recidivism, thus providing a starting point for studies which address vocational education and recidivism.

Recommendation 6B: The results of this analysis must be disseminated to and shared with all agencies involved in the present education effort at LCIW, with the Louisiana Division of Administration and with others in the vocational education and correctional education communities. The variables that were identified as significant by the discriminant model should be considered in future recidivism studies.

Recommendations for Subsequent Studies

1. The review of literature revealed little about the effectiveness of vocational education in the correctional setting. Very few studies have been done, and many of these have been reviewed and described as inconclusive. It is recommended that more research be conducted in Louisiana on both incarcerated male and female populations in order to discover treatments or combinations of treatments that can effectively and consistently reduce recidivism rates. It is incumbent upon the Louisiana Department of Public Safety and Corrections, the Louisiana Technical College System, and individuals interested in furthering their understanding of recidivism and its effects to take up this challenge.
2. The present study should be replicated at LCIW with existing populations. Additional variables should be investigated; new data sources and treatments are now available that were not available for the present study. These variables/treatments include:

a. Job placement/employment of vocational course completers and non-participants.

b. Grade level (Results of the Test of Adult Basic Education Survey Exam) of course completers and non-participants.

c. Additional treatments inmates may be exposed to while incarcerated. These include intensive drug counseling, Adult Literacy classes, Horticulture and Culinary Arts vocational courses, a Life Skills training program, and computer-based vocational programs provided by the education staff employed by the Department of Public Safety and Corrections.

3. Recidivism researchers should make a standard practice of translating positive research findings into estimated cost savings that can result from implementing targeted treatment or education programs. A major focus of the reduction of recidivism is an accompanying reduction in the burden to taxpayers who must support and maintain inmates in prison as well as supporting their families during the period of incarceration. A suggested approach to reporting includes side-by-side comparisons of the cost-benefits of occupational training versus
perpetual human maintenance. As part of a comprehensive public education and community relations effort, positive reports of accomplishments in the area of rehabilitation should be routinely presented to community and civic organizations and to entities who fund prison education programs.

4. Recidivists in prison should be surveyed to determine what they perceive to be the reasons they engaged in activities that led to their re-incarceration. Over half of the inmates at LCIW are repeat offenders. The usual precautions with self-reported data of human perceptions should be observed, but even more caution should be observed when dealing with criminal minds. The design for any survey instrument used for this purpose must build in appropriate safeguards to ensure internal validity.

5. An assessment regarding the standardization of an operational definition for recidivism should be pursued. Although the present study upholds the findings in the literature that a three-year follow-up is advisable, this may require further investigation. If important information is missed due to a follow-up period that is too short, a complete view of recidivism may not be accomplished. This must be weighed against the unrealistic expectation that a given treatment can affect human behavior for an indefinite period of time.
6. In order to make correctional education research more plausible, data systems must be aligned. Measures should be instituted that will facilitate research. Correctional agencies should establish automated education tracking as a priority. Education agencies should likewise provide improved tracking systems for their incarcerated students.

Caution is recommended in an educational agency's approach to such data tracking. The issue of confidentiality of education records is easily addressed and guided by policy; however, the point in time where an education agency should possess filed knowledge of an ex-student's criminal past is yet undefined. In any regard, it is never advisable for an education agency to disclose information that can identify that a student was or is incarcerated. As important as this issue may be with educational agencies, it should equally concern individuals wishing to pursue research in any other area of correctional research.
References


124

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APPENDIX - RECIDIVISM DATA SHEET

Name of Prospective Participant: (Used only to cross-reference LCIW and JMTI data)

<table>
<thead>
<tr>
<th>Last</th>
<th>First</th>
<th>M.I.</th>
</tr>
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</table>

DPS&C Number:________________________ (Prisoner I.D. Number)

Date of Birth:________________________ Race: _____ 1 = Black

Number of Children:______ 2 = White

Number of Prior Felony Convictions:______ 3 = Other

Released Between 7/1/90 - 6/30/94: _____ 1= No; 2= Yes

If Released Between 7/1/90 - 6/30/94, Release Date = __________________________

If Released Between 7/1/90 - 6/30/94, District to Which Released:_________

(Recidivist?) Reincarcerated Prior to July 1, 1997: _____ 1 = No; 2 = Yes

If Reincarcerated Prior to July 1, 1997, Reincarceration Date: ________________

Recidivists: 1-year __, 2-year __, 3-year __, 4-year __, 5-year __, 6-year __, 7-year __

JMTI Completer _____ (1=No; 2=Yes) JMTI Course Completed ___

1=GED; 2=Custom Sewing;

3=Office Occupations; 4=Upholstery;

5=GED plus a vocational course

Comments/Data Gathering Problems:____________________________________________

___________________________________________________________________________

___________________________________________________________________________
Henry Elbert Sanders, Jr., is a lifelong student and advocate of vocational education. In 1979, his career began as a related instructor in Louisiana’s vocational education system. As such, he maintained a continuous program of action research aimed at integrating academic skills with occupational training. It was during this period that he became interested in vocational education for incarcerated populations.

Beginning in 1989, he served as an assistant director in Louisiana’s Technical College System, developing and supervising education programs on branch campuses at the Louisiana Correctional Institute for Women and the Hunt Correctional Center.

Henry has been a professional musician for 26 years. He maintains that this adds balance, providing opportunity for right-brain expression. He comments, “Vocational education must recognize the need to develop its students in a holistic manner; employers hire whole people, not just the technically-skilled parts.”

Henry confesses that he and his wife, Lori, share a passionate preoccupation with travel, especially in the breath-taking mountain territories of eastern Tennessee. At home in Fordoche, Louisiana, mutual interests in gourmet Cajun cooking, landscaping and a rewarding life in the “Louisiana Bayou Country” will prevail.

Henry obtained his bachelor of science degree in Industrial Technology from the University of Southwestern Louisiana, Lafayette in 1978. He completed a master of science degree in Vocational Education from Louisiana State University, Baton Rouge, in 1989. He is a member of the American Vocational Association, the Louisiana Vocational Association, and the Correctional Education Association.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Henry Elbert Sanders, Jr

Major Field: Vocational Education

Title of Dissertation: Vocational Education and Recidivism at the Louisiana Correctional Institute for Women

EXAMINING COMMITTEE:

Betty E. Harrison

Robert Wise

Donna H. Redman

Michael J. Burnett

Date of Examination: June 19, 1998

Approved:

Major Professor and Chairman

Dean of the Graduate School