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AN ANALYSIS OF RECIDIVISM AMONG RESIDENTS RELEASED FROM  
BOSTON STATE AND SHIRLEY PRE-RELEASE CENTERS DURING 1972-1973

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## ABSTRACT

The present study is an attempt to make a contribution to the literature concerning the effectiveness of community based pre-release programs in achieving the goal of reducing the repeated criminal behavior of individuals who have experienced prison incarceration. For this purpose, a research evaluation of two experimental pre-release correctional programs operated in the State of Massachusetts was carried out.

The research evaluation resulted in two major findings. First, it was found that individuals who had completed the combined pre-release programs under study had significantly lower rates of recidivism than a control group of similar types of inmates who had not participated in a pre-release program; and a significantly lower actual recidivism rate than their derived expected recidivism rate. Secondly, a series of inmate types which seem to be disproportionately helped by pre-release program participation was tentatively identified.

Both findings are believed to be tentative findings pending the completion of further reserach, now currently in progress at the Massachusetts Department of Correction.



This report is a summary of sections of the doctoral dissertation of Daniel P. LeClair: Preparing Prisoners For Their Return to the Community: The Evaluation of the Rehabilitative Effectiveness of Two Pre-Release Programs Operated in Massachusetts; Tulane University, July, 1975.

## INTRODUCTION

In June of 1972, following a series of prison disturbances and a general state of prison unrest, the Massachusetts State Legislature passed the "Correctional Reform Act" authorizing the establishment of several correctional programs to be operated outside the confines of the existing traditional correctional facilities. One type of these newly authorized programs was the Pre-Release Centers. In these programs, the legislature allowed state prisoners who were within eighteen months of their parole eligibility date to be placed in small residential centers to serve out the remainder of their prison sentences.

The new Massachusetts Pre-Release Centers took as their model the programs originally initiated by the Federal Government by the Federal Bureau of Prisons, known as "Pre-Release Guidance Centers". These federal programs were first established in Chicago, New York, and Los Angeles in 1961. Later they were extended to several other cities in various parts of the country. Although the first programs were those operated by the Federal Bureau of Prisons, it was not long before several independent state and county correctional agencies began adopting the model to their own systems. Massachusetts is, therefore, one among many states that is experimenting in the adaptation of the federal Pre-Release Guidance Center model.

The purpose of the Pre-Release Guidance Center is to provide a mechanism whereby a more gradual process of societal reintroduction for prisoners completing their sentences would occur, and thereby reduce the rate of reincarceration. This process is accomplished in several ways. First, the selected inmates live in a reintegration residence located outside of the walled institution, and often in the area of the community where they are to eventually return. Presumably, this action separates the inmates from what has been called "the anti-rehabilitative inmate social system" within the total institution of the walled prison. Secondly, most of the inmates work at jobs in the community during the day and return to the Pre-Release Center to spend their non-working hours. This allows for interaction with non-inmates at work in the community as well as provides the opportunity for

the offender to participate in major economic roles. In addition to accumulating savings from their wages, residents in the program are participating in economic roles by paying state and federal taxes, by paying for social security benefits, and by paying for the cost of their room, board, and personal expenditures even though they are still technically incarcerated inmates. Furthermore, a portion of their pay is often allocated to support dependents or to pay off debts or court costs accumulated before incarceration. When released from prison, the inmate receives his accumulated earnings less the deductions for room, board, taxes, personal expenditures, and outside allotments. The remaining accumulated earnings provide an additional resource for the inmate's reintegration into the community when he is released.

Thirdly, inmates have the opportunity to enlist in educational programs in area schools and colleges by attending classes during the day or evening and returning to the Pre-Release Center during non-school hours. This allows the inmate to interact with individuals in the free community as well as to allow the inmate to re-establish ties with the educational system prior to his release on parole. In most instances, the centers are able to secure funds to support this activity.

Finally, the Pre-Release Centers are able to meet the need of gradual reintegration to the community by such programs as continued vocational and educational counseling, drug counseling, resource identification in the community, home furloughs, and job development and placement. In summary, the Pre-Release programs provide needed supervision but at the same time allow the offender to continue to perform major societal and economic roles. Hopefully, the program eases the often difficult transition from prison to community by providing an intermediary step.

### THE MASSACHUSETTS PROGRAM

The two programs operated by the Massachusetts Department of Correction to be studied here are the Shirley Pre-Release Center and the Boston State Pre-Release Center. Though both facilities operate according to the general Pre-Release program concept as developed by the Federal Bureau of Prisons and outlined above, important differences in terms of urban versus rural location and client eligibility exist between the two programs.

The Shirley Pre-Release Center received its first client in November 6, 1972. Its original bed capacity was 35. However, the program gradually expanded to a capacity of 70 men. Geographically, the center is located in the town of Shirley which is in north central Massachusetts about forty-five miles northwest of Boston. The town population is approximately 4,900 individuals. The minimum security physical plant consists of 1000 acres of land containing modern industrial shops for instruction, classrooms, a gymnasium, an auditorium, a recreation hall, chapel, a kitchen and dining area, and several residential cottages. The facilities were originally used to house a youth reformatory no longer run by the state because of recent legislation eliminating youth incarceration. Ironically, some of the Pre-Release residents that were to come to the Shirley Pre-Release Center had previously done time at Shirley as juvenile offenders.

The Shirley program was originally designed to service men with a history of drug use associated with their criminal careers. Other eligibility requirements are: (1) preferring men under 23 years of age; (2) no existing outstanding warrants or detainers from the courts lodged against him; (3) not deemed sexually dangerous by prison psychiatric unit; (4) not having a recent record of severe disciplinary offenses within the sending institution, and (5) being eligible for parole or discharge within the next eighteen months.

Specific program operations included intensive group therapy designed to tie in closely with the utilization of community resources; work and/or education



release programs; home furloughs; and vocational training. Because of the drug related criminal history backgrounds of the residents, the Pre-Release concept of providing a transition from the structured environment of prison life to the relative freedom of community life is interwoven with a more specific goal of providing residents with an awareness that will lead to drug-free adjustment in the community. This was to be achieved by special drug therapy and group counseling programs. Whenever possible, community groups are encouraged to play a role in the functioning of the Center's programming. In addition, residents are encouraged to utilize community resources for their particular needs by taking advantage of program release provisions.

The second program under study is the Boston Pre-Release Center, a minimum security residential facility accommodating fifty men. The center is located on the grounds of Boston State Hospital which is in the Dorchester section of Boston. The center borders on a densely populated lower class residential area containing a large Black population. The original design of the program specified an urban location and a location in which a large percentage of Massachusetts Correctional Institution releasees had originally come from so that it would be possible to select residents that would be returning to the same area when released from the center. This feature constitutes an important difference from the Shirley program. Since the Boston Pre-Release Center is actually located in the approximate setting where its residents most probably will reside when released, the work and education assignments as well as other community resources that the resident has begun to utilize can continue subsequent to release from the center. There are two other differences between the two programs. Boston Pre-Release does not restrict clients to those with a criminal career associated with drugs, though most of the residents are characterized by such careers; nor does Boston Pre-Release set an age requirement.

The center is housed in a single two story building on the grounds of the Boston State Mental Hospital. The building contains offices for staff, five residential rooms, and two recreation rooms and a snack kitchen on the first floor,

and a larger group of residential rooms on the second floor. Residents utilize the same dining and medical facilities provided for the State Hospital patients but otherwise the center is not involved with the State Hospital plant.

Each prospective resident participates in an orientation program while still at the sending institution. Individual planning and specification of goals occurs, at which point the center's rules and policies are made clear to the inmate. Upon arrival at the center, residents participate in additional orientation sessions, receive work and/or educational placements in the community, participate in counseling programs, and are made aware of various community resources. These community resources include such services as drug and alcohol clinics, employment counseling and job placement services and community health resources. Home furloughs are also provided as part of center programming.

Aside from the requirement that residents of the center are selected from those in the institutional population that will be returning to the Boston area after their incarceration, three additional eligibility requirements exist. These include: (1) the client must have no current outstanding warrants or detainers from the courts lodged against him; (2) the client must not be deemed a sexually dangerous person by the legal-medical apparatus at the sending institution; and (3) the client must be eligible for parole or discharge within a period of eighteen months. These three requirements also apply for the Shirley Pre-Release Center.

### METHODOLOGY

The present study was begun in January of 1973 and was designed with the purpose of evaluating the outcome in terms of rates of recidivism of participants in the Shirley and Boston State Pre-Release programs outlined above. The study includes those participants who entered the Pre-Release programs and who were released from the programs during the first fourteen months of operation. Thus, the study includes all inmates who participated in the Shirley and Boston State Pre-Release programs from the time of the inception of the programs in November of 1972 who had completed the program and had been released to the community as of January 1, 1974. In addition, the study also includes all inmates who were assigned to and participated in the programs for a given period of time, but who were subsequently removed from the program and returned to their respective sending walled institutions within the same time span of the study -- November, 1972 through January 1, 1974. This second group consists primarily of "in-program failures", those who had been returned to their sending institutions for reason such as: failure to adjust, infraction of house rules, serious disciplinary problems, actual or attempted escape, consistently returning late from work or educational release time, or commission of a new crime while on release time in the community. However, a few individuals were returned to their sending institutions for non problematic reasons, such as their own request or for reasons beyond their control such as medical problems that could better be serviced in the walled institutions. Because of this factor, the sub-sample will be referred to as "program non-completers" rather than as program failures.

A total of 228 individuals participated in and were released from the two Pre-Release centers collectively during the specified time period of the study. One-hundred-eleven residents were released from Boston State and 117 from Shirley. Of the 111 residents released from Boston State, 75 were program completers and

were released to the community either as parolees or as having received a good conduct discharge at the termination of their sentence. Thirty-six individuals at Boston State were returned to their sending walled institutions to complete their period of incarceration there. Of the 117 residents released from Shirley, 62 were program completers and 55 were program non-completers.

The overall design included the collection and processing of commitment variables, personal background characteristics variables, and criminal history variables on 1015 males released from Massachusetts Correctional Institutions during the year 1971. This data has already been published as separate Massachusetts Department of Correction reports. (LeClair, 1974 and 1975) The total sample of 1015 male releasees was collected to serve as a control group population for the Pre-Release evaluation. The year 1971 was purposely chosen because it represented a releasee population taken in a period in time prior to the introduction of community based corrections in Massachusetts and at the same time being close to the beginning date of the Pre-Release programs under study. Since the State of Massachusetts operates a variety of other Pre-Release programs, offers post-release Half-Way Houses, offers work release programs, offers educational release programs, and offers Home Furloughs to the total institutional population; a control group had to be drawn in a period of time prior to the introduction of these programs to avoid interaction effects.

Research Questions:

The Study will address the following two research questions:

- (1) Are those inmates who ended their terms of incarceration in a Pre-Release Center less likely to be reincarcerated within one year of their release than are similar types of inmates who did not participate in a Pre-Release program prior to release?
- (2) Are certain types of inmates who ended their term of incarceration in a Pre-Release Center less likely (or more likely) to be reincarcerated within one year of their release than are similar types of non-participants?

In measuring the reduction of further criminal behavior, the standard used will be recidivism rates. For both the Pre-Release centers' population and the control group, a recidivist will be defined as any subject who is returned for whatever reason to a Federal or State prison or to a County House of Correction or to a jail for 30 days or more. The follow-up period will be exactly one full year from the date of the subject's release from the Pre-Release centers, for the treatment group, or directly from the state prisons for the control group. It is important to note that a person can be returned either as a parole violator or as a person convicted of a new offense.

Because of the possible existence of a non-random selection process in the assignment of clients to pre-release programs, an additional comparison between the treatment and control samples will be made. Specifically, Expected Rates of recidivism will be constructed from the control sample and applied to the treatment sample. The Expected Rate of Recidivism for the treatment sample will be compared with its Actual Rate of Recidivism. In this way, the possibility that a low or high risk population may have been chosen in the process of selection for the program will have been controlled for.

The second research question extends the inquiry of the effectiveness of the Pre-Release programs as a correctional device by specifically addressing the issue of what types of inmates are particularly helped or adversely affected by program participation. Past criminological research has consistently demonstrated that no rehabilitative program can be expected to work well with all offender types. Analysis of differential impact, therefore, will be carried out in order to identify the inmate types who have high, moderate, or low success/failure outcomes as pre-release program participants in comparison to the same offender types not participating in pre-release programs.

The specific methodological technique to be utilized in this effort will be multivariate analysis. A series of background variables will be collected on each pre-release participant and for each non-participant in the control group (personal history background characteristics, and criminal history background characteristics). These background variables will be used as the independent variables in the running of the multivariate analysis. The dependent variable will be the recidivism rate of the individuals in the treatment and control samples.

#### Samples:

The treatment sample will be drawn consisting of all inmate participants in the Shirley Pre-Release and the Boston Pre-Release centers from the inception of the program in November, 1972 and who have also completed the program and released to the community as of January 1, 1974 or who had been in the program and returned to sending institutions as program non-completers. Thus, two subsamples of treatment exist: (1) program completers, and (2) program non-completers.

A control sample will be drawn from the population of inmates released from Massachusetts Correctional Institutions in the year 1971. Female releasees were excluded from the population in that both of the Pre-Release centers under study do not admit females. The total control group population contains 1015 individuals. As stated above, this population was chosen because it represents a period just

prior to the introduction of community based corrections in Massachusetts

It was decided to exclude program non-completers from the part of the evaluation design dealing with the measurement of treatment effects for two reasons. The first is a practical reason, when an individual is returned from a pre-release program to the original sending walled institution it is usually for a serious reason. Often this reason is attempted or actual escape or for a new arrest, all of which involve the possibility of new sentences. Therefore, many of the program non-completers are still in prison and thus could not be researched in terms of recidivism. But even when a new sentence is not received, the fact that a person "failed" in the pre-release setting may prolong the date of receiving a parole, and this would mean that the individual would not be released from prison before the cutoff date for follow-up.

The second reason for excluding program non-completers from the analysis of treatment effects is a theoretical one. The main goal of a pre-release program is to provide an intermediary step between confinement in a maximum security walled institution and the relative freedom of the general community. A person who fails to successfully complete that intermediary step but instead is returned to the walled institution from where he is to be subsequently released, in the author's judgment, has not experienced graduated release.

However, those individuals in the non-completion samples who could be followed for recidivism outcome were followed-up, and will be included in the discussion on findings.

TABLE I  
SUMMARY OF SAMPLES

		<u>NUMBER</u>
I.	Control Group	1015
II.	Shirley Pre-Release	
	Completions	62
	Non-Completions	<u>55</u>
	Followed-up	20
	Still in Prison	35
	Total Shirley Sample	117
III.	Boston State Pre-Release	
	Completions	75
	Non-Completions	<u>36</u>
	Followed-up	15
	Still in Prison	21
	Total Boston State Sample	111

Data Collection:

Data collected for both the treatment and control samples consists of: (1) criminal history variables; (2) social background variables; (3) history of present offense variables; (4) history of present incarceration; and (5) recidivism variables. This material was collected from the Massachusetts Department of Correction central office files and from records provided by the Parole Board and the Board of Probation.<sup>1</sup> In addition, program participation variables were collected on the treatment sample. The source of this data was the client files kept by the Pre-Release centers. A full listing of the variables collected and utilized in the analyses that follow can be found in Appendix I of this study.

<sup>1</sup> The author would like to acknowledge his indebtedness and appreciation for the careful work that the following individuals provided in the collection and coding of data used for the analysis: Ira Baline, Linda Collins, Donna Gurski, Denise Huffman, Carolyn Jackson, Russ Kerr, Joe Landolfi, Chris Mackey, Therese Pink, and Ellen Weiner. He would also like to acknowledge his indebtedness and appreciation for the computer processing aid of Andy Griffiths, Robert Patrician, Tom Cannon, and Ed Callahan.



# FINDINGS

## RESULTS OF RECIDIVISM FOLLOW-UP ANALYSES

### A. Treatment Completion Samples Compared to Control Group

Of the 137 individuals who had participated in and had successfully completed either of the two pre-release programs under study, 120 individuals were not returned to a county House of Correction or jail or a State or Federal prison for 30 days or more within one year of follow-up. The remaining 17 individuals were reincarcerated during this follow-up period. Thus, the overall recidivism rate for the combined pre-release program completion samples was 12.4%.

For the Shirley pre-release program completion sample, 11 of the 62 releasees had been reincarcerated for at least 30 days within one year of their release; the recidivism rate for the Shirley completion sample, therefore, was 17.7%.

For the Boston State pre-release program completion sample, 6 of the 75 releasees had been reincarcerated for 30 days or more within one year of their release. Thus, their recidivism rate was 8%.

For the control group population, of the 1015 releasees from Massachusetts State prisons in 1971, 770 were not reincarcerated for 30 days or more within one year of their release from prison. The remaining 245 releasees were reincarcerated during this follow-up time period. Therefore, the recidivism rate for the control group was 24%.

The recidivism rates for each of these samples are summarized in Table II below.

TABLE II

### DIFFERENTIAL RECIDIVISM RATES FOR TREATMENT AND CONTROL SAMPLES

<u>SAMPLE</u>	<u>NUMBER</u>	<u>RECIDIVISTS</u>	<u>NON-RECIDIVISTS</u>	<u>RECIDIVISM RATE</u>
Shirley Completions	62	11	51	17.7%
Boston State Completions	75	6	69	8.0%
Total Pre-Release Completions	137	17	120	12.4%
Control Group	1015	245	770	24.0%

From Table II it can be seen that the control group sample had the highest observed recidivism rate. The Boston State pre-release completion sample had the lowest observed recidivism rate. In terms of statistically significant differences, the Boston State pre-release completion sample, taken singularly, and the combined pre-release completion samples, taken as a whole, had significantly lower recidivism rates than the control group. Even though the recidivism rate for the Shirley completion sample is lower than the control group, the differences were not found to be statistically significant. Similarly, the differences in the recidivism rates between the Boston State and the Shirley pre-release completion samples were not statistically significant. The results of these statistical tests are summarized in Table III below.

TABLE III

$\chi^2$  TESTS OF SIGNIFICANCE BETWEEN RECIDIVISM RATES OF THE TREATMENT AND CONTROL SAMPLES

<u>COMPARISON</u>	<u>CHI SQUARE</u>	<u>PROBABILITY LEVEL</u>
Boston State vs. Control Group	10.26	< .01
Shirley vs. Control Group	1.32	> .05
Total Pre-Release vs. Control Group	9.45	< .01
Boston State vs. Shirley	2.96	> .05

(1 df for all  $\chi^2$  tests)

Expected Rates of Recidivism were derived for the two pre-release samples and for the two samples combined. (See Appendix I) It was discovered that the Shirley pre-release sample had a higher expected recidivism rate than the actual recidivism rate of the control group; that the Boston State pre-release sample had a lower expected recidivism than the actual recidivism rate of the control group; and that the combined pre-release population had an expected recidivism rate almost identical to the actual recidivism rate of the control group. Therefore, while we have confidence that the combined pre-release completion sample has not

been biased in terms of the recidivism risk potential of members selected for pre-release, there is some doubt concerning the recidivism risk potential of the samples taken separately. Even though the differences between the individual pre-release programs and the control group were not found to be statistically significant, because they approach statistical significance, the use of Base Expectancy Tables was thought desirable as a second, perhaps more sensitive, measure of recidivism risk potential.

Even without the application of the Base Expectancy Table to the pre-release samples, however, we can make a major conclusion at this point in the analyses. When the two pre-release treatment groups are joined to form a single pre-release program completion sample, the results of the recidivism outcome of this group as compared to the recidivism rates of the control group reveal that pre-release completers have a statistically significant lower rate of recidivism than of individuals who have not participated in pre-release programs.

#### B. Expected Rates of Recidivism Compared to Observed Rates

Analyses (presented in Appendix II) resulted in the derivation of sets of expected recidivism rates for the pre-release samples. It was found that the expected recidivism rate for the Shirley completion sample was 30.9%; and the expected recidivism rate for the Boston State completion sample was 21.5%. The expected recidivism rate for the total pre-release completion sample was found to be 25.7%.

Comparing these expected recidivism rates with the recidivism rates that actually occurred, we find that both the Shirley and Boston State samples, when taken individually, and the pre-release sample, when taken as a whole, had actual rates of recidivism that were substantially below their expected rates. These findings are summarized in Table IV below.

TABLE IV

EXPECTED RATES OF RECIDIVISM COMPARED TO OBSERVED RATES, COMPLETION SAMPLE

<u>SAMPLE</u>	<u>EXPECTED RECIDIVISM RATE</u>	<u>OBSERVED RECIDIVISM RATE</u>
Shirley Completions	30.9%	17.7%
Boston State Completions	21.5%	8.0%
Total Pre-Release Completions	25.7%	12.4%

From Table IV it can be seen that the Shirley completion sample had both the highest expected and observed rates, though the observed rate is 13.2 percentage points lower than the expected rate. For the Boston State completion sample, the observed rate was 12.5 percentage points lower than the expected rate; and, for the total pre-release completion sample the observed rate was 13.3 percentage points lower than the expected rate. All of these differences are statistically significant.<sup>2</sup> The results of the tests for statistical significance are presented in Table V, below.

TABLE V

$\chi^2$  GOODNESS OF FIT TEST OF SIGNIFICANCE BETWEEN  
EXPECTED AND OBSERVED RECIDIVISM RATES FOR PROGRAM COMPLETION SAMPLES

<u>SAMPLE</u>	<u>CHI SQUARE</u>	<u>PROBABILITY LEVEL</u>
Shirley Completions	5.03	.02
Boston State Completions	8.09	.01
Total Pre-Release Completions	12.68	.001

(all significant; 1 df used for all three computations)

<sup>2</sup> To determine statistical significance, the  $\chi^2$ , goodness of fit test was utilized:  

$$\chi^2 = \frac{(\text{observed}-\text{expected})^2}{\text{expected}}$$

From the data presented in Tables IV and V, above, it can be seen that the actual recidivism rate for each of the pre-release completion samples are below their expected recidivism rate, and that these differences are statistically significant. We conclude, therefore, that individuals who have participated in, and have successfully completed, either of the two pre-release programs under study exhibit lower rates of recidivism than do similar types of inmates who have not participated in pre-release programs.

C. Treatment Non-Completion Samples Compared to the Control Group

As stated above, there were 91 individuals who had participated in either the Boston State or Shirley pre-release programs who had failed to complete these programs. Instead, these individuals were returned to their sending institution from which they would eventually be released. Even though it was decided not to use these individuals in measuring the effectiveness of pre-release programs, a part of the group will be included in the recidivism analyses as a side point of interest.

Of the 91 program non-completion sample members, 35 individuals had been subsequently released from their walled institutions before the cut-off period necessitated for recidivism follow-up. Because these are the only program non-completion sample members for whom recidivism follow-up could be conducted, the term, program non-completion sample, will refer only to these individuals in the analyses that follow.

Of the 35 individuals in this program non-completion sample, 7 had been reincarcerated within one year of their release from prison. The remaining 28 individuals had not been reincarcerated within the same time period. The recidivism rate for the non-completion sample, therefore, was 20%. Of the 20 non-completions in the Shirley program, 5 were reincarcerated resulting in a recidivism rate of 25%. For the 15 Boston State non-completions, 2 were reincarcerated within one year resulting in a recidivism rate of 13.3%.

As can be seen in Table VI, below, while the combined pre-release non-completion sample has a recidivism rate below that of the control group, the recidivism rate for the Shirley non-completion is almost identical with that of the control group; and the recidivism rate for the Boston State non-completions is below that of the control group.

TABLE VI  
DIFFERENTIAL RECIDIVISM RATES FOR TREATMENT NON-COMPLETION SAMPLES  
COMPARED TO THE CONTROL GROUP

<u>SAMPLE</u>	<u>NUMBER</u>	<u>RECIDIVISTS</u>	<u>NON-RECIDIVISTS</u>	<u>RECIDIVISM RATE</u>
Shirley Followed Up Non-Completions	20	5	15	25.0%
Boston State Followed Up Non- Completions	15	2	13	13.3%
Total Pre-Release Followed Up Non- Completions	35	7	28	20.0%
Control Group	1015	245	770	24.0%

In terms of statistical significance, however, none of these differences is significant. Therefore, we conclude that, on the basis of these results, the pre-release program non-completers did not have significantly higher or lower rates of recidivism than the control group. The results of the tests of statistical significance are presented in Table VII, below.

From the results presented in Tables VI and VII we have concluded that no statistically significant differences exist between the actual recidivism rates of the followed-up non-completion samples and the recidivism rates of the control group. Participation in pre-release programs when not followed through to completion does not lead to reduced recidivism rates.

TABLE VII

X<sup>2</sup> TESTS OF SIGNIFICANCE BETWEEN NON-COMPLETION  
FOLLOWED-UP SAMPLES AND THE CONTROL GROUP

<u>COMPARISON</u>	<u>CHI SQUARE</u>	<u>PROBABILITY LEVEL</u>
Shirley vs. Control Group	0.12*	>.05
Boston State vs. Control Group	0.45*	>.05
Total Pre-Release vs. Control Group	0.32	>.05
Shirley vs. Boston State	0.18	>.05

(1 df for all X<sup>2</sup> tests)

\* Yates Correction applied

As a further test of this relationship, we decided to utilize the Base Expectancy Tables in order to make adjustments for recidivism risk levels in the treatment and control samples.

D. Expected Recidivism Rates of Followed-Up Treatment Non-Completion Samples Compared to Actual Recidivism Rates

Analyses determined (see Appendix II) that the expected recidivism rate for the total non-completion followed-up pre-release sample was 30.8%; for Shirley non-completions the expected recidivism rate was 31.1%; and for Boston State non-completions the expected recidivism rate was 30.3%.

All three of these expected recidivism rates are above the actual recidivism rates of the control group, suggesting that the program non-completion followed-up population contained a higher recidivism risk group. However, when tests of statistical significance were run it was discovered that none of the differences were statistically significant.<sup>3</sup>

<sup>3</sup> When the Chi Square statistic was utilized to determine whether or not these differences were statistically significant, X<sup>2</sup>'s of 0.03, 0.01, and 0.004 were found for the Total Non-Completion, Shirley and Boston State samples respectively. (1 df, p >.05, for all three samples).

Because the differences between the program non-completion expected recidivism rates and the actual recidivism rate of the control group were not significant, the tentative conclusion presented in part C above could stand as a final conclusion. That is, that there are no statistically significant differences between the recidivism outcome of pre-release program non-completion participants and the control group. However, the Base Expectancy Table derived rates were compared with the actual observed rates for the treatment non-completion samples. The results of these comparisons are presented in Table VIII below.

TABLE VIII  
EXPECTED RECIDIVISM RATES COMPARED TO OBSERVED RATES,  
PROGRAM NON-COMPLETION SAMPLE

<u>SAMPLE</u>	<u>EXPECTED RECIDIVISM RATE</u>	<u>ACTUAL RECIDIVISM RATE</u>
Shirley Non-Completions	31.1%	25.0%
Boston State Non-Completions	30.3%	13.3%
Total Pre-Release Non-Completions	30.8%	20.0%

From Table VIII it can be seen that the Expected Recidivism rates are higher than the Actual Recidivism Rates. This is most pronounced for the Boston State non-completion sample, with its actual recidivism rate 17 percentage points below its expected recidivism rate. For the Shirley non-completion sample, the actual recidivism rate was 6.1 percentage points below the expected recidivism rate. For the combined non-completion followed-up sample, the actual recidivism rate was 10.8 percentage points below the expected.

In terms of statistical significance, again none of the differences were found to be significant. The results of  $\chi^2$ , goodness of fit statistical tests are presented in Table IX, below.<sup>4</sup>

<sup>4</sup> See footnote 2, for statistical formula used.



TABLE IX

<sup>2</sup>  
X GOODNESS OF FIT TEST OF SIGNIFICANCE BETWEEN  
EXPECTED AND OBSERVED RECIDIVISM RATES FOR PROGRAM NON-COMPLETION SAMPLES

<u>SAMPLE</u>	<u>CHI SQUARE</u>	<u>PROBABILITY LEVEL</u>
Shirley Non-Completions	0.33	> .05
Boston State Non-Completions	1.99	> .05
Total Pre-Release Non-Completions	1.94	> .05

(all three not significant, 1 df used)

We conclude from the preceding analyses in parts C and D of this chapter that individuals who have participated in pre-release programs but who have not successfully completed those programs have recidivism rates that are similar to the recidivism rates of similar types of individuals who have not participated in pre-release programs at all.

The above finding should not be considered surprising. The very goal of the pre-release program is the gradual introduction of individuals back into the community as opposed to an abrupt direct release from the walled prison. Since program non-completers are returned to their walled institutions and eventually released from these institutions directly to the community, they are experiencing a release similar to that of the control group. In contrast, the pre-release program completers are gradually reintroduced to the community.

Therefore, the recidivism outcome of the program non-completion samples actually strengthens the conclusion reached in part B of this chapter: that individuals who have participated in, and have successfully completed pre-release programs, exhibit lower rates of recidivism than do similar types of individuals who have not participated in pre-release programs.

## DIFFERENTIAL TREATMENT EFFECTS

The 2nd research question that the present study seeks to address concerns the existence of possible differential treatment effects for pre-release program participants. While the above analyses have demonstrated that pre-release program completers obtain lower rates of recidivism when compared with similar non-participants, we are now concerned with the differential performance of specific categories of individual participants. The question now becomes: Are certain types of participants disproportionately helped or adversely affected by participation in pre-release programs? For example, if we hypothetically take the category of history of previously known drug use, are individuals known to have had a prior history of drug use more likely or less likely to recidivate when compared to a control group of similar non-participants; than individuals without a known history of drug use, when compared to a control group of similar non-participants?

As stated above, this question extends the inquiry of the effectiveness of the pre-release programs as correctional devices by specifically addressing the issue of differential treatment effect for specific categories of participants. Past criminological research has consistently demonstrated that no single rehabilitative program can be expected to work well with all offender types. Often what instead happens is that the specific rehabilitative programs may work well with certain categories of inmates, may not work at all with other categories of inmates, or may even actually do harm to certain categories of inmates. Therefore, in this section we address ourself to this issue of differential treatment effect.

In order to attempt to determine if a differential treatment effect exists, it was necessary to incorporate a control group. This involves a comparison of the recidivism rates of treatment and control groups with various factors held constant.

The specific methodological technique utilized in this investigation was multivariate analysis. A series of background characteristics variables were selected for each pre-release participant and for each member of the control group. (These variables are summarized and defined in Appendix I). The background variables were used as the independent variables in running the multivariate analysis. The recidivism rate for the individuals in each sample was taken as the dependent variable. Individuals in the Boston State and Shirley Pre-release programs were combined to form a single sample since we have previously demonstrated the comparability of the combined pre-release program completion samples with the control group, and since there were very few recidivists in the treatment samples, the decision was made to deal with a combined pre-release sample rather than the individual program samples.

Each of the independent variables was individually taken and dichotomized according to a series of possible splits in both the treatment and control samples. The split that produced the highest chi square when comparing recidivism outcome between sample on one half of the dichotomy, if statistically significant at the .05 P level or better, was selected as a possible indicator of differential treatment. The  $X^2$  was computed for each half of the dichotomy between treatment and control group samples. If it were demonstrated that one part of the dichotomy resulted in a statistically significant difference between treatment and control and the other part did not, differential treatment effect was thought to exist. If, on the other hand, both parts of the dichotomy produced a statistically significant difference, or if both parts of the dichotomy did not produce a statistically significant difference; evidence of differential treatment effect was thought not to exist.

Upon completion of this analysis, the variables tentatively selected as indicators of differential treatment effect were subjected to an additional statistical technique. Specifically, the chi square scores on each part of the dichotomy were converted to phi scores. If the phi coefficients that were obtained

for each part of the dichotomy were similar, the variable was no longer considered as a possible indicator of differential treatment effect. On the other hand, if the phi coefficient was high for the part of the dichotomy where differential treatment effect was thought to exist, and low in the alternate portion, the variable was selected as an indicator of differential treatment effect.

Differential treatment analysis resulted in the tentative selection of 23 variables thought to demonstrate differential outcome. Upon running  $\phi$  coefficients, 6 of these variables were rejected. The remaining 17 variables were viewed as clustering around seven categories of variables: level of school attainment; length of job history; type of present sentence; age at beginning criminal career; length and type of criminal record; number of prior incarcerations and paroles, and length of present incarceration; and finally, history of alcohol arrests.<sup>5</sup>

Pre-release participants who had completed the eighth grade of schooling or better seemed to be disproportionately helped by the program when compared to participants who had not completed the eighth grade and when compared to both categories of the control group.

Pre-release participants who had very short prior periods of employment at any one job had disproportionately reduced recidivism rates following program participation.

Individuals participating in pre-release programs who received a single charge on their present offense and/or who had no special condition attached to their sentence (such as "from and after") also seemed to be disproportionately helped by program participation.

When we consider the age at which an individual began his criminal career, pre-release participants who began their criminal career at a slightly older age were disproportionately helped by program participation.

<sup>5</sup> The statistical tabulation for each of the variables originally selected are available upon request at the Massachusetts Department of Correction, Research Unit.

A series of indicators clustering around the length and type of prior criminal record also demonstrated a group disproportionately helped by pre-release program participation. Individuals that were disproportionately helped tended to have shorter court records and a lower number of total offense charges; tended not to have had a previous charge for an offense against the person; and to have fewer (6 or less) prior offenses against property.

Another grouping of indicators of differential treatment effect relates to the number of previous incarcerations and paroles and the length of the present incarceration. Individuals who had been previously incarcerated less frequently and/or who had not previously experienced a parole, were disproportionately helped by pre-release participation. In addition, individuals who served a shorter period of time on their present incarceration had a disproportionately lower rate of recidivism following pre-release program participation.

A final category of differential treatment effect was prior history of arrests for drunkenness. Individuals who had been previously arrested for drunkenness appeared to be disproportionately helped by pre-release participation.

Throughout the analyses, no evidence of a negative treatment effect was found. That is, when compared to the control group no indicator was found to demonstrate that pre-release program participation disproportionately increased recidivism for any particular type of inmate.

Variables found as indicators of a positive differential treatment effect are summarized in Table X below.

TABLE X

SELECTED INDICATORS OF POSITIVE DIFFERENTIAL TREATMENT EFFECT

- I. Individuals whose previous educational level attainment was the eighth grade or higher.
- II. Individuals who had not previously held a job for more than 6 months.
- III.
  - (a) Individuals with a single charge on the present sentence.
  - (b) Individuals with a simple sentence type (i.e. not having a "from and after," or a "forthwith," etc. attached to their sentence).
- IV. Individuals who had not been arrested before the age of 16.
- V.
  - (a) Individuals with no more than 12 previous court appearances.
  - (b) Individuals with no more than 10 previous charges.
  - (c) Individuals with no more than 6 previous offenses against property.
  - (d) Individuals not having had a previous offense against the person.
- VI.
  - (a) Individuals with no more than 2 previous incarcerations (either juvenile or adult).
  - (b) Individuals with no previous paroles (either juvenile or adult).
  - (c) Individuals serving 9 or less months on present incarceration.
- VII. Individuals with one or more previous charges for drunkenness.

## DISCUSSION

The present study was designed with the purpose of evaluating the correctional effectiveness of two community-based pre-release programs operated by the state of Massachusetts. The programs had emerged out of the current national treatment philosophy characterized as community-based corrections. This treatment philosophy argues that the series of stresses that accompany the transition from the rigid controls of traditional penal institutions to the relative freedom found upon community re-entry, infringe upon (or actually negate) rehabilitative gains made through institutional treatment programs. Therefore, the community-based treatment philosophy advocated the establishment of supervised graduated release centers to be located outside the confines of the penal institutions and to be directly linked to the major social institutions of the outside community. It was considered crucial to re-establish (or, in fact, to establish for the first time) ties between the releasee and the legitimate social institutions in the community to which the inmate will eventually return. This process, it was hypothesized, would reduce the present high levels of recidivism of correctional institution releasees. The Boston State and Shirley Pre-Release Centers were established in Massachusetts to meet this goal.

In reviewing the literature reporting research evaluations of pre-release programs in other states that have thus far appeared, one is not left with a clear or consistent picture. When recidivism is used as an evaluation criteria, some studies report successful outcomes and others report no difference in outcome at all. It is evident that more research must be done before a judgment can be made as to the effectiveness of pre-release programs in meeting the goals of the community-based correctional process.

The present study, therefore, represents an additional attempt at contributing to the research evaluation literature on the effectiveness of pre-release programs by testing the degree to which the Massachusetts programs were successful in meeting

their program goal of reducing the repeated criminal behavior of individuals who have experienced prison incarceration.

Two research questions were addressed to accomplish this task:

(1) Are those inmates who ended their terms of incarceration in a pre-release center less likely to be reincarcerated within one year of their release than are similar types of inmates who did not participate in a pre-release program prior to release?

(2) Are certain types of inmates who ended their term of incarceration in Pre-Release Center less likely (or more likely) to be reincarcerated within one year of their release than are similar types of non-participants?

When the two pre-release completion samples were joined together to form a single total pre-release program completion sample, the results of the recidivism follow-up for this group when compared to the recidivism follow-up for the control group revealed that pre-release completers had a statistically significant lower rate of recidivism. Whereas, individuals who had completed a pre-release program had a collective recidivism rate of 12%, similar types of inmates who had not participated in a pre-release program had a collective recidivism rate of 24%.

When taking each pre-release program separately, using the expected recidivism rates derived from Base Expectancy Tables, it was found that the actual recidivism rate for each sample was statistically significant below the expected rate. We therefore concluded that pre-release program completers at Boston State and Shirley, when taken as two separate populations, both had statistically significant reduced rates of recidivism than similar types of inmates who had not participated in pre-release programs.

If we are to go beyond this conclusion to a statement that pre-release participation alone caused the reduction in recidivism, we must do so with extreme caution until other research, currently in operation in the Massachusetts Department of Correction, is completed. While we can clearly state that pre-release participants



who successfully completed their programs had lower recidivism rates than the control group or their derived expected rates would have indicated, to attribute this reduction solely to the operation of the pre-release program would tentatively be risky for at least two basic reasons.

First, since the control group was selected from releasees from Massachusetts State prisons in 1971, and since the expected rates were also derived from this 1971 population, an overall system change might have occurred by which recidivism rates dropped for all correctional releasees in the years 1972 and 1973. In the years 1972 and 1973 a wide variety of correctional reform programs were introduced in addition to pre-release programs, such as: home furloughs, work and education release programs, half-way house programs and special impact programs (supported work). Until research is completed on the overall recidivism rate of 1972 and 1973 releasees and these results compared to the overall recidivism rates of years prior to the introduction of these programs, one will not be able to answer the question as to whether an overall system change has occurred. When this question is answered, then the answer to the question of which particular programs were mainly responsible for the reduction can be attempted.

A second imponderable that stands in the way of a direct attribution of the lower recidivism rates of pre-release participants to the program operation is the Parole system. One has to ask the question: Has there been any overall changes in the administrative functioning of the Parole Board in Massachusetts during the time period of the follow-up in the community. For example, one change known to have occurred was the ability of a potential parole revokee to have legal representation at a formal hearing before the revoke process could be completed. Since the majority of the pre-release releasees were on parole status following pre-release completion, and since the majority of all recidivists are parole revokees, this administrative change if leading to a reduction in the number of individuals revoked would influence the recidivism outcome of the pre-release

samples. This effect, and other parole system changes, is also being subjected to research. Therefore, the question as to whether or not the pre-release programs actually "caused" the reduced recidivism must be held as tentative pending these future research findings.

One piece of evidence uncovered in the present study, however, that seems to be in support of the attribution of reduced recidivism to pre-release program completion was the experience of the program non-completers. For those individuals who began pre-release participation but subsequently failed to complete the program, recidivism follow-up revealed that they did not have statistically significant lower recidivism rates, either when compared to the control group or when compared to their derived expected rates. However, since the samples here are very small in that the majority of the program non-completers were still in prison at the time of follow-up, and thus could not be included in this analysis, these results are very tentative.

In determining differential treatment effect--the second research question that the present study addressed--a series of variables which indicated that a particular type of individual had been disproportionately helped by pre-release participation were selected. Seventeen variables were selected as indicating types of inmates disproportionately helped by pre-release program completion when compared to a control group of non-participants. For the most part, these selected variables identified individuals who were at earlier stages in the criminal career pattern. Inmates disproportionately helped were those with shorter court records, with fewer prior incarcerations and paroles, and with a shorter period of time served on their present sentence. These findings are not surprising in that one would expect that individuals less deeply imbedded in a criminal career would respond more favorably to community reintegration than individuals more deeply imbedded in a criminal career pattern.

However, two categories of positive differential treatment effect found were somewhat surprising. First, pre-release completers who had more severely sporadic employment histories were found to be disproportionately helped by program completion. That is, individuals who had not previously held any job for longer than 6 months had disproportionately lower recidivism rates than individuals who had held a job more than 6 months, when compared to a control group of non-pre-release participants. Secondly, individuals who had histories of prior arrests for drunkenness were found to be disproportionately helped by pre-release program participation. Both of these variables point to individuals possibly helped by pre-release reintegrative programs because these programs serve a need not otherwise met when releasing individuals directly from traditional penal institutions.

Again the reader must be warned that the results of the differential treatment effect analyses must be regarded as tentative. As further research is conducted on future releasees from pre-release centers in years subsequent to 1972 and 1973, a large sample of treatment groups will be possible. If the same variables continue to demonstrate a differential treatment effect, then we can be more confident as to their validity, and thus their utility. Until such time, these early research findings should be viewed as tentative and exploratory in nature.

In conclusion, the present research evaluation of the two Massachusetts pre-release programs has resulted in two major findings. First, it was found that individuals who had completed either of the two pre-release programs under study had significantly lower rates of recidivism than a control group of similar types of inmates who had not participated in a pre-release program; and, significantly lower actual recidivism rates than their expected recidivism rates. Secondly, a series of inmate types which seem to be disproportionately helped by pre-release program participation was tentatively identified.

These findings are believed to be tentative findings pending the completion of further research, now currently in progress at the Massachusetts Department of

Correction. At the completion of this research, if the above findings still stand, one would then be able to conclude that the reintegrative philosophy of the current community-based correctional treatment movement has resulted in the development of an effective rehabilitative process.

APPENDIX I

PART A

VARIABLES USED IN ANALYSES

A. Commitment Variables

1. Institution of Original Commitment\*
2. Number of Jail Credits
3. Age at Commitment
4. Present Offense (most serious charge)\*
5. Number of Charges Involved in Present Offense \*
6. Type of Sentence\*

B. Personnel Background Characteristics Variables

1. Race\*
2. Marital Status\*
3. Military Service\*
4. Last Civilian Address\*
5. Emergency Addressee\*
6. Occupational Field\*
7. Length of Employment at Most Skilled Position
8. Longest Time Employed at Any One Job
9. Last Grade Completed\*
10. History of Drug Use\*

C. Criminal History Variables

1. Age at First Arrest
2. Age at First Drunk Arrest
3. Age at First Drug Arrest

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\*An asterik indicates variables that will be formally defined in Part B of this Appendix.

4. Total Number of Court Appearances
5. Number of Court Appearances for Person Offenses
6. Number of Court Appearances for Property Offenses
7. Number of Court Appearances for Sex Offenses
8. Number of Court Appearances for Narcotic Offenses
9. Number of Court Appearances for Drunkenness Offenses
10. Number of Court Appearances for Escape Offenses
11. Number of Juvenile Commitments
12. Number of House of Correction Commitments
13. Number of Prior State of Federal Commitments
14. Number of Any Incarcerations
15. Number of Juvenile Paroles
16. Number of Adult Paroles
17. Number of Any Paroles
18. Number of Juvenile Parole Violations
19. Number of Adult Parole Violations
20. Number of Any Parole Violations

D. Releasing Variables

1. Age at Release
2. Length of time served on present incarceration
3. Type of Release.\*

E. Recidivism Variable

PART B

FORMAL DEFINITIONS OF VARIABLES

A-1 Institution of Original Commitment

- a. Walpole
- b. Concord
- c. Framingham
- d. Other institutions

A-4. Present Offense

a. Offenses Against the Person (Chapter 265)\*

Murder, 1st degree (section 1)

Murder, 2nd degree (section 2)

Manslaughter (section 13)

Assaults with intent to commit murder.

includes assault with intent to murder, maim, etc.; assault to commit murder; assault with a deadly weapon with intent to murder; assault with intent to kill (section 15)

Attempted murder

includes all attempts to commit murder, other than assaults: attempted murder, attempts to commit murder by poisoning, drowning, or strangling (section 16)

Armed Robbery (section 17)

Unarmed Robbery

includes robbery, robbery-not being armed, robbery by force and violence. (section 19)

Assaults with intent to rob, etc., Being Armed

includes assault with a deadly weapon with intent to rob. (section 18)

Assaults with intent to rob, etc. Not Being Armed

includes assault to rob, assault with intent to rob, assault with intent to rob by force and violence (section 20)

Confining or putting in fear a person for the purpose of stealing

includes breaking, burning or blowing up a safe. (Section 21)

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\* Chapters and sections refer to the General Laws of Massachusetts.



Armed Assaults in dwelling houses

the act may be an actual assault or an attempt. (section 18A).

Assault and Assault and Battery

includes assault, assault and battery, assault on an officer (sections 13A and 13D)

Assault and Battery with Dangerous Weapon (section 15A)

Assault by means of a Dangerous Weapon

includes armed assault. (section 15B)

Mayhem (section 14)

Assaults not before mentioned

includes assault with intent to commit manslaughter (section 29)

Kidnapping

includes abduction, holding hostages. (section 26)

Extortion

includes attempts to extort money, threats. (section 25)

Conspiracy

where possible do not code case here, but under the specific crime that the subject conspired to commit. That is, conspiracy to commit larceny should be coded as (522) Larceny.

b. Sex Offenses - Against the Person (Chapter 265)

Rape (section 22)

Assault with Intent to Commit Rape

includes attempts to rape, indecent assault on an adult, indecent assault and battery on an adult, indecent assault on an adult with intent to rape (section 24)

Rape of Female under Sixteen (section 22A)

Rape of Child

includes carnal abuse of a child, carnal abuse of a child under "x" years, statutory rape (section 23)

Assault on Female under Sixteen with intent to commit Rape

includes attempts to carnally abuse, assault on child under the age of consent, indecent assault on a minor (section 24B)

Indecent Assault and Battery on Child under 14

includes indecent assault and battery on a minor (section 13B).

Unnatural and Lascivious Acts (Chapter 272)  
includes unnatural acts, lascivious acts,  
assaults to commit unnatural sex acts (section 35)

Unnatural Acts with Child under 16 (section 31)  
Sodomy and Buggery (section 34)

Incest (section 17)

Other Sex Offenses

includes adultery, fornication, indecent exposure,  
lewd lascivious cohabitation, lewdness, open  
and gross lewdness. (sections 14, 16, 18, 53)

c. Crimes Against Property (Chapter 266)

Arson

includes burning of houses, woods, fence, etc.;  
and any attempts. (sections: 1, 2, 5, 5A, 7, 8, 9, 10,  
108, 109, 111A)

Burglary, Being Armed or Making an Assault

includes armed burglary, breaking and entering  
with intent to assault with dangerous weapon (sec-  
tion 14)

Burglary

includes breaking and entering (both night and  
day), attempt to break and enter, breaking and  
entering and larceny, burglary, breaking and entering  
with intent larceny, breaking and entering with  
intent larceny and larceny. (sections: 15, 16, 16A,  
17, 18, 19)

Possession of Burglary Implements (section 49)

Stealing

includes stealing in building, ship, at a fire,  
etc. (sections 20, 24)

Larceny from the Person (section 25)

Larceny

includes attempted larceny. (section 20)

Theft of a Motor Vehicle

includes larceny of a motor vehicle, operation  
without authority of owner after suspension, opera-  
tion without authority of owner, use without  
authority (section 28)

Forgery and Uttering

include forgery, uttering, counterfeiting  
(section 37 and 37A and Chapter 267, sections 1-31)

Common and Notorious Thief (section 40)

Fraud

includes embezzlement (sections: 50-59)

Receiving Stolen Goods

includes both the receiving and the buying of stolen goods (section 60)

Common Receiver of Stolen Goods (section 62)

Malicious or Wanton Injuries to Property

includes the destruction, defacement, wilful injury, explosion of both public or private property; malicious mischief (sections: 94-114, 124-130)

d. Other Offenses (Chapter 268-273)

Escapes

includes attempts, assisting in, accessory to (Chapter 268-Sections 15, 16, 16A, 17)

Weapons Offenses

includes carrying or possession (Chapter 269-Section 10)

Nonsupport

includes desertion (Chapter 273-Section 1 thru 10)

Polygamy

includes bigamy (Chapter 272-Section 15)

Stubborn Child

includes runaway, common night walker (Chapter 272-Section 53)

Deriving Support from Prostitute (Chapter 272-Section 9)

Disturbing the Peace

includes idle and disorderly (Chapter 272-Section 53)

Prostitution (Chapter 272-Section 53)

Illegitimacy (Chapter 273-Section 11-19)

Abortion (Chapter 272-Section 19)

Gaming

includes the manufacture, possession, or sale of gaming implements; keeping common gaming house (Chapter 271-Sections 1-48)

Motor Vehicle Offenses

includes all motor vehicle offenses: other than larceny of a motor vehicle, operation without authority of owner after suspension, operation without authority of owners, use without authority.

Contempt of Court

includes perjury (Chapter 268, section 1)

Bribery

includes both accepting and offering (Chapter 268A-Sections 1-24)

Drunkenness (Chapter 272-Section 48)

Possession of Narcotic Drugs

includes the possession of all narcotic drugs other than heroin, only where the sale of the drug is not inferred or explicitly stated. For example: possession of narcotic drugs, narcotic drugs found in possession (Chapter 94-Section 205)

Possession of Heroin

only where the sale of the drug is not inferred or explicitly stated. (Chapter 94-Section 212)

Stealing Narcotic Drug

only where the sale of the drug is not inferred or explicitly stated (Chapter 94-Section 217C)

Being Present Where Narcotic Drug Illegally Kept

includes narcotic drug law violation, conspiracy to violate narcotics drug law, and all charges involving "Being Present" where narcotic drugs are illegally kept. (Chapter 94-Section 213A)

Possession of Hypodermic Syringe

includes possession of hypodermic needle, or any instrument adapted for the administration of narcotic drugs. (Chapter 94-Section 211)

Inducing Another to Violate Narcotic Drug Law

includes inducing a minor to violate narcotic drug law (Chapter 94-Section 217A)

Sale of Heroin

includes possession of heroin with intent to sell, unlawful possession of heroin with intent to sell, sale of heroin (Chapter 94-212A)

Sale of Narcotic Drugs

includes the sale of all narcotic drugs other than heroin. For example: unlawful sale of narcotic drugs, sale of narcotic drugs (Chapter 94-Section 217)

Possession of Narcotic Drugs with Intent to Sell

includes the possession of all narcotic drugs other than heroin with the intent to sell (Chapter 94-Section 217B)

Operating a Motor Vehicle Under Influence of Narcotics

Controlled Substance

includes the manufacturing, distribution, dispensing or possession with intent to manufacture, distribute or dispense a controlled substance.

A-5 Number of Charges Involved in Present Offense

The total number of charges involved in the present commitment. For example, if an individual is committed for Burglary, Arson and Assault, three charges are recorded. Charges should not be confused with counts. An individual may be committed on 16 counts for the single charge of Burglary.

A-6. Type of Sentence:

Simple - one sentence is being served.

Concurrent - more than one sentence is being served  
(all served coterminous)

Aggregate - more than one sentence is being served  
but the sentences are added together and  
not served coterminous.

Forthwith - a sentence which supercedes an existing  
sentence.

From and After - a sentence which began after an  
individual had been released from an  
existing sentence.

B-1 Race/Ethnic Origin

White  
Black  
American Indian

Asiatic  
Spanish

B-2 Marital Status

Married  
Single  
Divorced

Widowed  
Common Law  
Separated

B-3 Military Service

None  
Honorable Discharge  
Dishonorable Discharge  
Bad Conduct discharge, Other than Honorable,  
General, Undesirable  
Medical  
In Armed Services, but the type of discharge is  
not listed on the Booking Sheet.

B-4. Last Civilian Address

Boston  
Northern Boston Suburbs  
Remaining Metropolitan Boston  
Lowell-Lawrence Area  
New Bedford - Fall River Area  
Springfield Area  
Worcester Area  
Other Massachusetts Areas  
Outside Massachusetts

B-5. Emergency Addressee: Name listed by the inmate as the person to contact should an emergency occur. Categories included were:

Father	Other Relative
Mother	Non-Relative
Spouse	No emergency addressee listed.

B-6. Occupational Field

Professional - (e.g., lawyers, doctors, engineers, clergy).

Business/Managerial - ownership of management of a business valued at \$10,000 or more.

Clerical/Sales - (e.g., sales managers, life insurance sales, bookkeeper, clerks).

Skilled Manual - (e.g., master tradesman, machinist, factory foreman).

Semi-Skilled Manual - (e.g., apprentice craftsman, automobile mechanic, assembly line).

Unskilled Manual - labor tasks requiring little training or skill.

Service - (e.g., bartender, waiter, taxi driver, janitor).

B-9. Education (Last Grade Completed)

the last grade of education which the subject completed. Both a high school graduate and a G.E.D. should be coded as 12. An individual who has completed one year of college should be coded 13. Two years of college is coded as 14. Etcetera.

B-10 History of Drug Use

Data collected from inmate files determining whether:

No mention of Drug use.

Drug User (no specific drug mentioned)

Drug User (mention of heroin use)

Drug User (mention of the use of any drug other than heroin or marijuana - the exclusive use of Marijuana)

Drug User (Marijuana only drug mentioned)

D-3. Type of Release

Parole

Discharge

APPENDIX II



### CONSTRUCTION OF BASE EXPECTANCY TABLES

A predictive attribute analysis was run on a population consisting of all releases from Massachusetts Correctional Institutions in 1971 (the control group in the present study). The total population of 1015 males was divided into two equal sized samples by randomly allotting cases into a construction sample (N=508) and a validation sample (N=507). From the computerized data base of the information system of the Department, 46 items of information were extracted (see Appendix I for a list of items extracted and the official definition of those items), all descriptive of the releasee, and his criminal history up to the date he was released from prison on the then present incarceration. A 47th item, the criterion variable-recidivism, was collected and added to the other items. A computer program referred to as "Max-chi Square" was utilized to carry out the successive splits of the predictive attribute analysis.<sup>6</sup> The completed analysis resulted in the development of the Experience Table presented as Table XI below.

<sup>6</sup> The Max-chi Square computer program was first developed by Andy Griffiths and later revised by Tom Cannon; both are on the Research Staff at the Massachusetts Department of Correction. Tom Cannon actually ran the Base Expectancy analysis.

TABLE XI

The Experience Table Developed on Construction Sample

Construction Sample 1971 Male Releasees	12 or more Prior Court Appearances	Age 27 or Younger at time of re- lease N = 104 RR = 48% ( $x^2 = 14.28$ )	Two or more Prior Charges for Drunkenness N = 56 RR = 59% ( $x^2 = 5.72$ ) One or Fewer Prior Charges for Drunkenness N = 48 RR = 35%
	N = 215 RR = 35%	Age 28 or Older at Time of Release N = 111 RR = 23%	Total Number of Charges 34 or more N = 21 RR = 48% ( $x^2 = 8.45$ )
Number = 508 Recidivism Rate = 25%	( $x^2 = 21.29$ )	Age 25 or Younger at Time of Release N = 189 RR = 24%	Total Number of Charges 33 or Less N = 90 RR = 18%
	11 or Fewer Prior Court Appearances  N = 293 RR = 17%	( $x^2 = 15.19$ ) Age 26 or Older at Time of Release N = 104 RR = 6%	Total Number of Charges 7 or More N = 104 RR = 32% ( $x^2 = 8.00$ ) Total Number of Charges 6 or Less N = 85 RR = 14%

The Experience Table was next fitted on to the validation sample. That is, the validation sample was subdivided according to the same categories of splits developed in the construction sample;  $\chi^2$ 's were run on each successive split. Table XII, below, illustrates how the validation sample was fitted to the Experience Table of the construction sample. The sample size and recidivism rate is given for each of the sub-samples created by the splits. The  $\chi^2$ 's between splits are also given.

TABLE XII

Experience Table Applied to Validation Sample

Validation  Sample  1971 Male  Releasees   N = 507 RR = 23%	12 or More Prior Court Appearances  N = 194 RR = 29%  (x <sup>2</sup> = 5.50)	Age 27 or Younger at Time of Release  N = 94 RR = 39% (x <sup>2</sup> = 8.01)	Two or More Prior Charges for Drunkenness N = 44 RR = 41%  (x <sup>2</sup> = 0.83)  One or Fewer Prior Charges for Drunkenness N = 50 RR = 38%
		Age 28 or Older at Time of Release  N = 100 RR = 19%	Total Number of Charges 34 or more N = 21 RR = 19% (x <sup>2</sup> = 0.00)  Total Number of Charges 33 or Less N = 79 RR = 19%
	11 or Fewer Prior Court Appearances  N = 313 RR = 20%	Age 25 or Younger at Time of Release  N = 189 RR = 24% (x <sup>2</sup> = 4.81)	Total Number of Charges 7 or More N = 108 RR = 31% (x <sup>2</sup> = 6.32)  Total Number of Charges 6 or Less N = 81 RR = 15%
			Age 26 or Older at Time of Release  N = 124 RR = 14%

As can be seen from Table XII, two of the final splits did not validate. Whereas in the construction sample 2 or more vs. 1 or less prior charges for drunkenness produced a  $\chi^2$  of 5.72 ( $p < .02$ , 1 df), in the validation sample the same dichotomy produced a  $\chi^2$  of only 0.83 ( $p > .50$ , 1 df). Similarly, whereas in the construction sample 34 or more versus 33 or less Total Number of Prior Charges produced a  $\chi^2$  of 8.45 ( $p < .01$ , 1 df), in the validation sample the same dichotomy produced a  $\chi^2$  of 0.00 ( $p > .95$ , 1 df). These two categories were therefore dropped from the table. Since all the remaining splits did validate, they were retained as the final validated Base Expectancy Table. This final Base Expectancy Table is presented below as Table XIII.

TABLE XIII

Validated Base Expectancy Table

Total Sample RR = 25%	Twelve or More Prior Court Appearances RR = 35%	Age 27 or Younger at Time of Release RR = 48%	
		Age 28 or Older at Time of Release RR = 23%	
	Eleven or Fewer Prior Court Appearances RR = 17%	Age 25 or Younger at Time of Release RR = 24%	Total Number of Charges 7 or More RR = 32%
			Total Number of Charges 6 or Less RR = 14%
		Age 26 or Older at Time of Release RR = 6%	

The completed and validated Base Expectancy Table yielded 5 basic risk categories. These will be used to determine the expected rates of recidivism for the treatment samples. A rank ordering of these 5 categories in terms of their risk level (i.e. recidivism rate) is summarized in Table XIV below.

TABLE XIV

Base Expectancy Risk Categories

Category Number	Description	Recidivism Rate
I	Age 27 or younger at time of release, 12 or more prior court appearances	48%
II	Age 25 or younger at time of release, 11 or fewer prior court appearances, and total number of charges 7 or more	32%
III	Age 28 or older at time of release, 12 or more prior court appearances	23%
IV	Age 25 or younger at time of release, 11 or fewer prior court appearances, and total number of charges 6 or less	14%
V	Age 26 or older at time of release, 11 or fewer prior court appearances	6%

The two treatment samples, Boston State Shirley Pre-Release participants, were now taken and divided into three subsamples each: I. Program Completions, II. Program Non-Completions released from prison in time for follow-up, and III. Program Non-Completions not released in time for follow-up. Subsample I will provide the main samples that will be used to test the effectiveness of the pre-release program. Since individuals in subsamples II and III did not complete the program and were not released to the community directly from the community integration stage of the pre-release program, they cannot be considered to have actually experienced treatment. In addition, subsample III cannot be used in any case because these individuals were still in prison after the cut-off date of January 1, 1974 for follow-up. However, expected rates for all three subsamples for each program as well as combinations will be constructed for background and informational purposes.

The formula for constructing an expected recidivism rate for a particular sample is:

$$\frac{(\text{Expected rate of category} \times \text{Number of individuals in category})}{\text{Total number of Individuals in Sample}}$$

For example, if we take Shirley Pre-Release Sample I (i.e., program completions), the expected rate for this sample would be calculated thusly:

<u>Risk Category</u>	<u>Expected Rate</u>	<u>Number</u>	<u>Computation</u>
I	.48	19	9.12
II	.32	24	7.68
III	.23	0	0
IV	.14	15	2.10
V	.06	4	0.24
		62	19.14

$$\text{Expected Rate} = \frac{19.14}{62}$$

$$\text{Expected Rate} = 30.9\%$$



In these computations, the risk category is the particular Base Expectancy Risk Category derived from the construction of the Base Expectancy Table for the control group (see Table XIV above for specific listing and description of the five risk categories). The expected rate is the appropriate expected recidivism rate for the individual risk category (see also Table XIV above for specific rate). Number refers to the number of individuals in the sample for which an expected rate is being calculated that fall into the particular risk category. And Total Number is the total number of individuals in the sample for which an expected rate is being determined.

The expected rates for each of the separate and combined subsamples of treatment groups are presented below as Tables XV, XVI, and XVII. The specific computations made for each of these derived Expected Rates are found in Appendix III.

TABLE XV

Expected Recidivism Rates for Shirley Pre-  
Release Samples

Samples	Number	Expected Rate
Shirley I	62	30.9%
Shirley II	20	31.1%
Shirley III	35	35.8%
Total Shirley	117	32.00%

TABLE XVI

Expected Recidivism Rates for Boston State Pre-Release Samples

Sample	Number	Expected Rate
Boston State I	75	21.5%
Boston State II	15	30.3%
Boston State III	<u>21</u>	<u>28.2%</u>
Total Boston State	111	24.00%

TABLE XVII

Expected Recidivism Rates for Total Pre-Release Samples

Sample	Number	Expected Rate
Total Pre-Release I	137	25.7%
Total Pre-Release II	35	31.0%
Total Pre-Release III	<u>56</u>	<u>33.0%</u>
Total Pre-Release	228	28.0%

From Table XV it can be seen that the Shirley Pre-Release sample, when taken as a whole, has an expected recidivism rate of 32% which is above the actual recidivism rate of the control group (24%).<sup>7</sup> This suggests that the Total Shirley Pre-Release Sample was a higher recidivism risk group than was the control group.

<sup>7</sup> In terms of statistical significance, this difference is not significant at the .05 level, though very close. It is statistically significant at the .10 level. ( $\chi^2=3.43$ ,  $p < .05$ ,  $p < .10$ , 1 df).

On the other hand, from Table XVI it can be seen that the Boston State Pre-Release Sample, when taken as a whole, has an expected recidivism rate of 24% which is identical to the actual recidivism rate of the control group (24%). Here we can conclude that the two samples have the same recidivism risk potential.

When the Shirley and Boston Pre-Release Samples, both taken in their entirety, are combined (see Table XVII) they have an expected recidivism rate of 28% which is above the actual recidivism rate of the control group (24%). However, this difference is not significant.<sup>8</sup> We conclude that the recidivism risk potential of the combined treatment samples is similar to the recidivism risk potential of the control group. In terms of recidivism risk potential, random selection has occurred for the combined program population.

What is perhaps most important to determine here are the differences between the pre-release program completion portions of the treatment samples (subsample I) and the control group. It is this portion of the samples that will be used to test program effect. From Table XV it can be seen that the expected recidivism rate for the Shirley completion sample (subsample I) is 30.9% which is above the actual recidivism rate of the control group (24%). This difference, however, is not statistically significant.<sup>9</sup>

For the Boston State completion sample (subsample I in Table XVI) it can be seen that the expected recidivism rate is 21.5% which is lower than the actual recidivism rate of the control group (24%). However, again this difference is not statistically significant.<sup>10</sup>

And finally, when we take the total Pre-Release Population (Boston State and Shirley samples combined) of program completers (subsample I) as a whole, it can be seen in Table XVII that the expected recidivism rate is 25.7% which is very similar to the actual recidivism rate of the control group (24%).<sup>11</sup>

8 In terms of statistical significance, this difference is not statistically significant.  $\chi^2=1.47$ ,  $p>.20$ , 1 df.

9 In terms of statistical significance, this difference is not statistically significant.  $\chi^2=1.47$ ,  $p>.20$ , 1 df.

10 In terms of statistical significance, this difference is not statistically significant.  $\chi^2=0.27$ ,  $p>.70$ , 1 df.

11 These samples do not differ in terms of statistical significance.  $\chi^2=0.16$ ,  $p>.70$ , 1 df.

Therefore, we conclude that the program completion samples do not differ from the control group in terms of the recidivism risk characteristics of their populations; and, for all practical purposes, we can assume a process of random selection for the program completion samples. This lends confidence to the employment of the control group when measuring program effects for individuals who successfully completed pre-release programs.

APPENDIX III

TABLE XVIII

Mathematical Computation of Expected Recidivism Rates for  
Sub-Categories of Shirley Pre-Release Treatment  
Sample

Sample	Risk Category	Expected Rate	Number	Computation
Shirley I	I	.48	19	9.12
	II	.32	24	7.68
	III	.23	0	0
	IV	.14	15	2.10
	V	.06	4	.24
			62	19.14
$\frac{19.14}{62} = \text{Expected Rate} = 30.9\%$				
Shirley II	I	.48	9	4.32
	II	.32	2	.64
	III	.23	0	0
	IV	.14	9	1.26
	V	.06	0	0
			20	6.22
$\frac{6.22}{20} = \text{Expected Rate} = 31.1\%$				
Shirley III	I	.48	15	7.20
	II	.32	15	4.80
	III	.23	0	0
	IV	.14	3	.42
	V	.06	2	.12
			35	12.54
$\frac{12.54}{35} = \text{Expected Rate} = 35.8\%$				
Total Shirley Sample	I	.48	43	20.64
	II	.32	41	13.12
	III	.23	0	0
	IV	.14	27	3.78
	V	.06	6	.36
			117	37.90
$\frac{37.90}{117} = \text{Expected Rate} = 32\%$				

TABLE XIX

Mathematical Computations of Expected Recidivism Rates  
for Sub-Categories of Boston State Pre-Release Treatment

Sample	Risk Category	Expected Rate	Number	Computation
Boston State I	I	.48	9	4.32
	II	.32	16	5.12
	III	.23	16	3.68
	IV	.14	12	1.68
	V	.06	22	1.32
			75	16.12
$\frac{16.12}{75} = \text{Expected Rate} = 21.5\%$				
Boston State II	I	.48	5	2.40
	II	.32	4	1.28
	III	.23	3	.69
	IV	.14	0	0
	V	.06	3	.18
			15	4.55
$\frac{4.55}{15} = \text{Expected Rate} = 13.3\%$				
Boston State III	I	.48	6	2.88
	II	.32	5	1.60
	III	.23	5	1.15
	IV	.14	0	0
	V	.06	5	.30
			21	5.93
$\frac{5.93}{21} = \text{Expected Rate} = 28.2\%$				
Total Boston State Sample	I	.48	20	9.60
	II	.32	25	8.00
	III	.23	24	5.52
	IV	.14	12	1.68
	V	.06	30	1.80
			111	26.60
$\frac{26.60}{111} = \text{Expected Rate} = 24\%$				

TABLE XX

Mathematical Computation of Expected Recidivism Rates  
for Sub-Categories of the Combined Pre-Release  
Treatment Samples

Sample	Risk Category	Expected Rate	Number	Computations
Total Pre- Release I	I	.48	28	13.44
	II	.32	40	12.80
	III	.23	16	3.68
	IV	.14	27	3.78
	V	.06	26	1.56
			137	35.26

$$\frac{35.26}{137} = \text{Expected Rate} = 25.7\%$$

Total Pre- Release II	I	.48	14	6.72
	II	.32	6	1.92
	III	.23	3	.69
	IV	.14	9	1.26
	V	.06	3	.18
			35	10.77

$$\frac{10.77}{35} = \text{Expected Rate} = 31\%$$

Total Pre- Release III	I	.48	21	10.08
	II	.32	20	6.40
	III	.23	5	1.15
	IV	.14	3	.42
	V	.06	7	.42
			56	18.47

$$\frac{18.47}{56} = \text{Expected Rate} = 33\%$$

Total Pre- Release All Samples Combined	I	.48	63	30.24
	II	.32	66	21.12
	III	.23	24	5.52
	IV	.14	39	5.46
	V	.06	36	2.16
			228	64.50

$$\frac{64.50}{228} = \text{Expected Rate} = 33\%$$



REFERENCES

- LeClair, Daniel P. Statistical Tables Describing the Characteristics and Recidivism of 1971 Releasees from Massachusetts Correctional Institutions. Massachusetts Department of Correction, August, 1974.
- LeClair, Daniel P. An Analysis of Recidivism Among Residents Released From Massachusetts Correctional Institutions During 1971. Massachusetts Department of Correction, May, 1975.