

Varying Time Criteria in Recidivism
Follow-Up Studies: A Test of the
"Cross-Over Effects" Phenomenon

Prepared by:

Daniel P. LeClair, Ph.D.
Deputy Director of Research

Massachusetts Department of Correction

Michael V. Fair
Commissioner

February, 1983

PUBLICATION #: 13103 - 20 - 250 - 2-83 - C.R.
Approved by John J. Manton, State Purchasing Agent

Abstract

The Massachusetts Department of Correction routinely collects and publishes annual recidivism studies. For the purposes of these reports, a recidivist is defined as a return to prison within one year of release. Though subject to limitations, the one-year follow-up period allows feedback to planners and administrators in a reasonable time frame. For example, a series of one year recidivism follow-up studies has been used to provide quantitative input into the decision-making process concerning the retention and expansion of graduated reintegration programming.

Some researchers contend, however, that problems inherent to one year follow-up studies may lead to faulty conclusions. Specifically, researchers warn of a phenomenon known as "cross-over effects" whereby results detected in a one year follow-up become reversed in the second or third year. To the extent that such a phenomenon may have occurred in the Massachusetts system, administrative decision making could have proceeded on a faulty basis.

Our concern that theoretical limitations of shortened follow-up periods could cast doubt on the validity of our research findings prompted a replication of an earlier study of prison releases which used a one year follow-up period to see if emerging trends had remained consistent after five years. Comparisons between findings of the two time criteria - a one year follow-up and a five year follow-up - constituted the measure of "cross-over effects". Analysis has revealed that all trends remained unchanged upon five years of follow-up, denying a significant role to "cross-over effects" in the Massachusetts research.

Varying Time Criteria in Recidivism
Follow-Up Studies: A Test of the
"Cross-Over Effects" Phenomenon¹

The Division of Research of the Massachusetts Department of Correction routinely collects and publishes annual recidivism data for the yearly releases of prisoners from the state correctional institutions. Such data has been available on an annual basis since the year 1971.

Statistical monitoring of the recidivism data since the year 1971 led to the detection of a number of significant trends occurring within the Massachusetts correctional system. Dominant among these trends was a systematic reduction in the recidivism rates in the years 1971 through 1978. For example, in the year 1971 the recidivism rate for the combined population of state prison releases was 25%; in 1973 it had dropped to 19%; and in 1978 to 16%.

A second major trend concerned the home furlough program in the Massachusetts correctional system, a program begun in 1971 and subsequently expanded. Recidivism studies demonstrated that inmate participation in the furlough program was associated with the systematic reduction in recidivism rates occurring in Massachusetts. Our data revealed that those individuals who had experienced one or more furloughs prior to release from

¹This paper was presented at the November 1982 Annual Meetings of the American Society of Criminology in Toronto, Canada.

prison had significantly lower rates of recidivism than did individuals who had not experienced a furlough prior to release. When selection factors were controlled, the relationship remained positive. This trend continued in a consistent pattern for the eight successive years for which data were available.

Recidivism studies have also revealed that participation in pre-release programs prior to community release led to reduced rates of recidivism. Again, when selection factors were controlled the relationship remained.

The final documented trend that emerged from the recidivism data focused on the process of graduated movement among institutions in descending level of security and population size. Analyses revealed that individuals released from prison directly from medium or minimum security institutions (including pre-release centers and halfway houses) had significantly lower rates of recidivism than did individuals released directly from a maximum security institution. Again, this relationship held up when selection factors were controlled.

In summary, the major findings of our research have shown that programs geared to maintain, establish, or reestablish general societal links in terms of economic, political, and social roles have led to a reduction in recidivism. Additionally, it was found that when an individual has been gradually reintroduced to society the chances of recidivism lessen. The research demonstrates the effectiveness of the recent establishment of the community-based correctional apparatus in the state of Massachusetts. This apparatus has been named the reintegration model.²

² A bibliography of the research data referred to in this summary is presented at the end of this report.

In the previous research a recidivist was defined as any subject who, within one year of release from prison, had been returned to a state or federal correctional institution, or to a county house of correction or jail for a period of 30 days or more. The return to prison could occur as the result of either a violation of the conditions of parole or as a court commitment to prison for a new offense.

Though subject to obvious limitations, the one year follow-up period used in our definition of recidivism allowed us to obtain feedback for planners and administrators within a reasonable time frame for the decision-making process. Many of the individual program components in the reintegration model were federally funded for experimental trial purposes and were planned for pick up by permanent state funding at a later date if and when programmatic effectiveness could be demonstrated. The series of one year follow-up studies allowed timely input, and thus relevant research data was available in the decision-making processes, leading both to an expansion of the reintegration programs and to the permanent state funding of these programs.

Some researchers feel, however, that the problems inherent in the one year follow-up studies lead to premature conclusions. For example, some researchers have pointed to the dangers of "cross-over effects" whereby the results found in the first year reversed themselves during the second or third year. Addressing this danger, the National Advisory Commission on Criminal Justice Standards and Goals has officially recommended a three year follow-up period, presumably alleviating if not correcting this problem.

Our concern that theoretical limitations of shortened follow-up periods could cast doubt on the validity of overall research findings led to a series of additional studies. A first attempt involved a recidivism

study with a two year follow-up period (LeClair, 1976). In this study, we found no evidence of "cross-over effects". Our major findings from the two year follow-up analysis remained consistent with the earlier one year follow-up analysis. A second attempt involved a five year follow-up period using prison releases in the year 1973 (LeClair, 1981). Again our major findings remained consistent. However, only a small percentage of releases in the 1973 sample had participated in reintegrative programs (approximately 10% of the sample). Thus, it was felt that the results should be viewed as tentative. The present study using the population of prison releasees in the year 1976 was undertaken to shed further light on the subject. For the 1976 releases, more than 50% of the sample had been involved in reintegration programming.

Procedure

The study involved a five year community follow-up of all individuals discharged or paroled from Massachusetts Correctional Institutions to the community during the year 1976. The same population had been used for a one year follow-up recidivism analysis in a previously published study (Mershon, 1978).³ The chief criterion used for determining recidivism was whether or not the releasee was returned to a prison, either for a technical violation of parole or for a commitment for a new offense. Jail or house of correction sentences of less than one month were not counted. The second

³Though the original study contained 925 individuals, the present effort determined that two of those individuals were released to custody (another criminal justice jurisdiction) and thus were mistakenly included in the sample. Therefore, those two individuals were deleted, and the present study focused on a population of 923 individuals released directly to the community.

criterion was the length of time out before return. Each individual in the sample was followed for five years from the date of release. We were thus able to vary the second criterion for periods up to a five year follow-up.

Data was derived primarily from the computerized data base developed by the Correction and Parole Management Information System. Additional data was collected from the files of the Department of Correction, the Parole Board, and the Board of Probation. The data was analyzed on the Massachusetts State College Computer Network.

Findings

Our analysis revealed that 39% of the population of releases in the year 1976 was returned to prison within the five year follow-up period. This recidivism rate of 39% was more than double the rate originally determined in the one year follow-up study. Varying the time criterion from one to five years revealed that the greatest proportion of recidivists were returned during the first and second years of the follow-up period. Table I in the appendix of this report summarizes this data on varying follow-up periods by specific institution of release. Notable in the table is what appears to be an indication of a "cross-over effect" in the comparative recidivism rates for the institutions Concord and Walpole. However, these apparent differences between Concord and Walpole were not statistically significant. One implication of this lack of statistical significance is that these differences could have resulted as much from random fluctuation from year to year as from any real difference in the population studied.

An interesting unanticipated finding of the analysis was that our subsequent data collection effort in the five year follow-up found

recidivists within the one year time criterion not originally detected. The original recidivism study of releases in the year 1976 reported a recidivism rate of 16% using the one year follow-up criterion, whereas our subsequent study reported a recidivism rate of 18% with the same one year criterion. Further analysis attributed this discrepancy to the time lag in posting official records. Evidence of out-of-state incarcerations as well as in-state county house of corrections and jail incarceration sometimes took more than a year to be officially posted in probation, parole and corrections record keeping systems. Collecting recidivism data much later in time - as was the case in the five year follow-up allowed a greater chance of detection. However, the difference in recidivism rates for these separate data collection efforts was not found to be statistically significant and thus did not affect the validity of the earlier study.

A principal concern of the present study was to evaluate whether or not trends discovered in one year follow-up analyses remained valid after a five year follow-up period. In the original 1976 recidivism study, among the major findings were the following overall trends: (1) a systematic reduction in recidivism rates was occurring; (2) participation in the furlough program was found to be associated with the reduced rates of recidivism; (3) participation in pre-release reintegration centers was found to be associated with reduced rates of recidivism; and (4) the security level of the releasing institution was related to the reduced recidivism. Therefore our five year data was evaluated in order to determine whether or not these major trends remained valid. Analysis revealed that all four trends remained consistent after five years of follow-up. Statistically significant evidence of "cross-over effects" was not found to exist. These findings are summarized in the set of tables produced in the appendix

of this report.

Tables II and III contain two sets of data both documenting a downward trend in recidivism rates. The first set of data uses a series of one year follow-up studies; the second set of data uses two five year follow-up studies. While the evidence in both data sets point in the same direction - a downward trend in recidivism rates - the one year studies allow the detection of trends to occur at an earlier point in time. The shorter follow-up studies have the advantage of timeliness, assuring a greater possibility of input into the administrative decision-making process.

Tables IV and V present data on the effects of inmate participation in the home furlough program using both a one year follow-up period and a five year follow-up period. The data reveal that those individuals who had participated in the home furlough program prior to release have lower rates of recidivism than individuals released without such participation. Results for both follow-up period are consistent and thus allow no evidence of "cross-over effects".

Tables VI and VII present the data sets on pre-release program participation. The data reveal that individuals released from prison via pre-release reintegration centers have lower rates of recidivism than those released directly from higher security institutions. Again, results remain consistent for both one and five year follow-up periods.

As the last example of the lack of "cross-over effects" in the Massachusetts research, Tables VIII and IX present data on differential recidivism rates according to the security level of releasing institution. For both the one year and the five year follow-up studies, the data reveal that lower security institutions have lower rates of recidivism than maximum security institutions.

Conclusion

In studying recidivism, correctional researchers have pointed to the problem of "cross-over effects" whereby results found using a one year follow-up period become changed or reversed when the follow-up period is extended. Such concerns have prompted the National Advisory Commission on Criminal Justice Standards and Goals to recommend a three year follow-up period as a response to this problem. In Massachusetts, our concern was that theoretical limitations of shortened follow-up periods could cast doubt on the validity of our past research findings. This prompted replication of an earlier study of prison releases which used a one year follow-up to see if emerging trends had remained consistent after five years. Analyses have revealed that the four major trends in recidivism rates remained unchanged even after five years of follow-ups, denying a significant role to "cross-over effects" in recent Massachusetts research efforts. From this we conclude that the use of one year follow-up studies provided timely input to the decision-making process without sacrificing validity.

More generally, we conclude that this study has provided additional evidence in support of the effectiveness of community correctional reintegration programs.⁴ We believe that our findings have wide range theoretical and policy implications. A theme emerges which appears to underline many of the individual patterns that were isolated. This

⁴It should be noted that since selection factors had been controlled in the original one year studies, the 5 year results should not simply reflect differences in the populations assigned to the reintegration programs such as furloughs and pre-release.

theme deals with the specific process of reintegration and graduated release; it also deals with the more general process of maintaining and/or reestablishing links between the offender and the general society to which he is to eventually return.

The Furlough Program may begin very early in the period of incarceration and this serves to maintain and strengthen links that existed before incarceration and provides an opportunity to establish new ties. Participation in pre-release centers and the broader process of movement from maximum to medium to minimum security levels also functions to gradually reintroduce the offenders to the relative freedom in the community that they will experience upon release.

The wide use of work and education release programs in the pre-release centers, and to a lesser extent in the medium and minimum security level institutions, also plays an important reintegrative role. Individuals are allowed to work or attend classes in a normal societal setting, to earn wages, to pay taxes and retirement fees, and to pay room and board expenses. They are provided an opportunity to budget and save wages.

To those fully aware of the nature of traditional incarceration, the findings of our research should really come as no surprise. Traditionally, we take an offender out of our society and place him in another social system - the prison - that in no way constructively resembles the society to which he will eventually return. Family ties, heterosexual relationships, economic roles, and political participation are severed. In short, the individual enters the prison society and gradually loses touch with some of the most basic aspects of normal societal life. In prison, one is no longer expected to pay rent, to shop for and buy food, to pay taxes or contribute to a pension fund. One no longer has to budget a week's wage

for there are no bills to pay. Medical bills, utility bills, all bills in fact are paid by the taxpayers in the outside society. It is no wonder, then, that after a period of incarceration a tremendous shock is faced upon societal reentry.

The major findings of our research have shown that programs generally geared to maintain, establish or reestablish general societal links in terms of economic, political, and social roles have led to a reduction in recidivism. Additionally, it was found that when an individual has been gradually re-introduced to society the chances of recidivism lessen. The research demonstrates the effectiveness of the recent establishment of the community-based correctional apparatus in the state of Massachusetts. The results of our five year follow-up analysis further support the validity of this position.

APPENDIX

TABLE I
VARYING FOLLOW-UP PERIODS: ONE TO FIVE YEARS

RELEASING INSTITUTION	ONE YEAR	TWO YEARS	THREE YEARS	FOUR YEARS	FIVE YEARS
WALPOLE	26%	43%	50%	54%	55%
CONCORD	29%	39%	45%	48%	54%
NORFOLK	20%	29%	30%	31%	38%
FRAMINGHAM - WOMEN	24%	31%	31%	32%	32%
FRAMINGHAM - MEN	0%	20%	20%	20%	20%
FORESTRY CAMPS	5%	13%	16%	22%	21%
PRE-RELEASE CENTERS	10%	19%	24%	27%	30%
TOTAL	18%	28%	32%	36%	39%

TABLE II

COMPARATIVE RECIDIVISM RATES BY INDIVIDUAL INSTITUTIONS FOR YEARS 1966-1978:
ONE YEAR FOLLOW-UP

YEAR	CONCORD	WALPOLE	NORFOLK	FRAMINGHAM	PRE-RELEASE	FORESTRY	TOTAL
1966	30%	33%	28%	32%	-	27%	30%
1971	28%	27%	18%	29%	-	14%	25%
1972	27%	21%	15%	18%	-	14%	22%
* 1973	26%	21%	14%	17%	12%	14%	19%
1974	27%	22%	19%	12%	12%	7%	19%
1975	26%	27%	12%	18%	14%	15%	20%
* 1976	25%	24%	22%	19%	9%	5%	16%
1977	18%	25%	14%	23%	8%	14%	15%
1978	27%	21%	23%	14%	9%	6%	16%

TABLE III

COMPARATIVE RECIDIVISM RATES BY INDIVIDUAL INSTITUTIONS FOR YEARS 1973/1976:
FIVE YEAR FOLLOW-UP

YEAR	CONCORD	WALPOLE	NORFOLK	FRAMINGHAM	PRE-RELEASE	FORESTRY	TOTAL
* 1973	55%	49%	35%	28%	35%	40%	44%
* 1976	54%	55%	38%	31%	30%	21%	39%

* years where both one year & five year studies were conducted.

TABLE IV

RECIDIVISM RATE BROKEN DOWN BY PARTICIPATION IN FURLOUGH PROGRAM,
1976 RELEASES: ONE YEAR FOLLOW-UP

	NUMBER	PERCENT	RECIDIVISM RATE
NON-FURLOUGH GROUP	426	(46)	25%
FURLOUGH GROUP	499	(54)	9%
TOTAL	925	(100)	16%

$$(x^2 = 42.34; 1 \text{ df}; p < .001)$$

TABLE V

RECIDIVISM RATE BROKEN DOWN BY PARTICIPATION IN FURLOUGH PROGRAM,
1976 RELEASES: FIVE YEAR FOLLOW-UP

	NUMBER	PERCENT	RECIDIVISM RATE
NON-FURLOUGH GROUP	423	(46)	45%
FURLOUGH GROUP	500	(54)	33%
TOTAL	923	(100)	39%

$$(x^2 = 14.2851; 1 \text{ df}; p < .001)$$

TABLE VI

RECIDIVISM RATES BY TYPE OF FACILITY, 1976:
ONE YEAR FOLLOW-UP

	NUMBER	PERCENT	RECIDIVISM RATE
RELEASED FROM PRE-RELEASE CENTERS	365	(40)	9%
RELEASED FROM HIGHER SECURITY INSTITUTIONS	560	(60)	21%
TOTAL	925	(100)	16%

$(X^2 = 23.4, 1 \text{ df}; p < .01)$

TABLE VII

RECIDIVISM RATES BY TYPE OF FACILITY, 1976:
FIVE YEAR FOLLOW-UP

	NUMBER	PERCENT	RECIDIVISM RATE
RELEASED FROM PRE-RELEASE CENTERS	365	(40)	30%
RELEASED FROM HIGHER SECURITY INSTITUTIONS	558	(60)	44%
TOTAL	923	(100)	39%

$(X^2 = 18.1, 1 \text{ df.}, p < .001)$

TABLE VIII

INSTITUTIONAL SECURITY LEVEL OF RELEASE: ONE YEAR FOLLOW-UP

SECURITY LEVEL	NUMBER	PERCENT	RECIDIVISM RATE
PRE-RELEASE	365	(40)	9%
MINIMUM SECURITY	142	(15)	15%
MEDIUM SECURITY	111	(12)	19%
MAXIMUM SECURITY	307	(33)	25%
TOTAL	925	(100)	16%

TABLE IX

INSTITUTIONAL SECURITY LEVEL OF RELEASE: FIVE YEAR FOLLOW-UP

SECURITY LEVEL	NUMBER	PERCENT	RECIDIVISM RATE
PRE-RELEASE	365	(40)	30%
MINIMUM SECURITY	141	(15)	28%
MEDIUM SECURITY	110	(12)	38%
MAXIMUM SECURITY	307	(33)	54%
TOTAL	923	(100)	39%

Bibliography

The principal data referred to in the paper was drawn from a series of research publications of the Massachusetts Department of Correction. A listing of these studies is contained below. Individual copies of any of the listed studies can be obtained by written request to the following address:

Research Unit
Massachusetts Department of Correction
100 Cambridge Street
Boston, Massachusetts 02202

- Landolfi, Joseph, "An Analysis of Differential Rates of Recidivism for MCI-Walpole Commitments by Institution of Release", Massachusetts Department of Correction Report No. 114, May, 1976A.
- Landolfi, Joseph, "An Analysis of Recidivism Among Residents Released from the Pre-Release Centers Administered by Massachusetts Halfway Houses, Inc.", Massachusetts Department of Correction Report No. 119, June, 1976B.
- Landolfi, Joseph, "Charlotte House Pre-Release Center for Women: A Profile of Participants and a Recidivism Follow-Up", Massachusetts Department of Correction Report No. 125, October, 1976C.
- Landolfi, Joseph, "Roxbury Community Rehabilitation Center: A Profile of Participants and a Recidivism Follow-Up", Massachusetts Department of Correction Report No. 130, March, 1977.
- LeClair, Daniel P., "An Analysis of Recidivism Among Residents Released from Boston State and Shirley Pre-Release Centers During 1972 - 1973", Massachusetts Department of Correction Research Report No. 100, August, 1975.
- LeClair, Daniel P., "An Analysis of Recidivism Among Residents Released from Massachusetts Correctional Institutions During the Year 1972 in Comparison with Releases in the Year 1966 and 1971", Massachusetts Department of Correction Publication No. 111, March 1976.

LeClair, Daniel P., An Analysis of Recidivism Rates Among Residents Released from Massachusetts Correctional Institutions During the Year 1973, Massachusetts Department of Correction Report No. 126, October, 1976B.

LeClair, Daniel P., Development of Base Expectancy Prediction Tables for Treatment and Control Groups in Correctional Research. Boston, MA: Massachusetts Department of Correction Research Report No. 134, August, 1977A.

LeClair, Daniel P., An Analysis of Recidivism Rates Among Residents Released from Massachusetts Correctional Institutions During the Year 1974. Boston, MA: Massachusetts Department of Correction Research Report No. 136, September, 1977B.

LeClair, Daniel P., "Societal Reintegration and Recidivism Rates", Massachusetts Department of Correction Report No. 159, August, 1978.

LeClair, Daniel P., "Home Furlough Program Effects on Rates of Recidivism", Criminal Justice and Behavior, Vol. 5, No. 3, September, 1978B.

LeClair, Daniel P., "Community-Base Reintegration: Some Theoretical Implications of Positive Research Findings", Massachusetts Department of Correction Report No. 180, November, 1979.

LeClair, Daniel P., "Community Reintegration of Prison Releases: Results of the Massachusetts Experience", Massachusetts Department of Correction Report No. 217, March, 1981.

LeClair, Daniel P., "Rates of Recidivism: A Five Year Follow-Up", Massachusetts Department of Correction Report No. 232, October, 1981.

Massachusetts Department of Correction Yearly Recidivism Studies 1971 Through 1978, Massachusetts Department of Correction Report Numbers 98, 111, 126, 133, 136, 148, 155, 156, 164, 179, 182, 210, 235, 247, and 248.

Marshon, Randi, "An Analysis of Recidivism Rates Among Residents Released from Massachusetts Correctional Institutions in the Year 1975; Massachusetts Department of Correction Publication No. 156, July, 1978.

Marshon, Randi, "An Analysis of Recidivism Rates Among Residents Released from Massachusetts Correctional Institutions During 1977", Massachusetts Department of Correction Research Report No. 163, December, 1978.

Metzler, Charles and Wittenberg, Shari, "The Development of Validated Base Expectancy Tables", Massachusetts Department of Correction Report No. 160, December, 1978.

Smart, Yvette, "An Analysis of Recidivism Rates Among Residents Released from Massachusetts Correctional Institutions in 1977", Massachusetts Department of Correction Report No. 182, November, 1979.

Williams, Lawrence, "Inmates Released Directly From a Maximum Security Institution During 1977 and 1978", Massachusetts Department of Correction Report No. 183, November, 1979.

Williams, Lawrence, "An Analysis of Recidivism Among Residents Released from Drug Contract Houses: 1977 and 1978 Releases", Massachusetts Department of Correction Report No. 197, July, 1980.

Williams, Lawrence, "An Analysis of Recidivism Rates Among Residents Released from Massachusetts Halfway Houses, Inc. 1977 - 1978 Releases, Massachusetts Department of Correction Report No. 198, July, 1980.

Williams, Lawrence, "An Analysis of Recidivism Among Women Released from Charlotte House: 1977 and 1978 Releases", Massachusetts Department of Correction Report No. 203, August, 1980.

Williams, Lawrence, "Men Released from Maximum Security: An Update", Massachusetts Department of Correction Research Report No. 236, January, 1982.