AN ANALYSIS OF DIFFERENTIAL RATES OF RECIDIVISM FOR
MCI-WALPOLE COMMITMENTS BY INSTITUTION OF RELEASE

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INTRODUCTION

In the Massachusetts criminal justice system the courts make direct commitments to three institutions. Men are committed to either MCI-Walpole or MCI-Concord, while women are committed exclusively to MCI-Framingham. When sentencing a man to Concord a judge does not fix a minimum and maximum term as he does when sentencing a man to Walpole. Sentences to this maximum security institution, traditionally the place of confinement for the younger offender, are always indefinite. A District Court or the Superior Court may sentence a male of any age, not previously sentenced for a felony more than three times, to an indefinite term at MCI-Concord, after conviction of a crime punishable in any state or county penal or correctional institution.[1] If a maximum term is not specified it is considered an indefinite sentence, having a maximum of 2 1/2 years. This maximum term, however, cannot exceed the maximum provided by law for the crime of which the individual was convicted. An indefinite sentence with no minimum term is a "reformatory type" sentence, giving the Parole Board considerable leeway as to the releases on Parole of an offender.[2]

When sentencing a man to the Commonwealth's other maximum security institution, MCI-Walpole, a judge must fix both a minimum and maximum term, and the minimum sentence may not be less than two and one half years. In recent years the crime for which more men were committed to Walpole was robbery, armed and unarmed.

A "Segregation Unit" with accommodations for 60 men was opened at Walpole in 1959. Male inmates in the general population of any of the correctional institutions whose presence there is "detrimental to the program of the institution" may be transferred to this unit for an indefinite period of time by the commissioner. An "Isolation Unit" where inmates may be confined for not longer than 15 days is also available for the "enforcement of discipline".

MCI-Norfolk, a medium security walled institution opened in 1931 was planned for the more hopeful and adaptable men.[3] Residents at Norfolk live in dormitory units rather than cell blocks. This approach, at least to "community life" was considered the first "community prison" in the United States for males. Selected inmates sentenced to Walpole or Concord, are eligible for transfer to Norfolk, after a careful screening process.

Since 1952, the Department of Correction has opened the first of three Forestry Camps in state forest reservations throughout the Commonwealth. Because these camps are minimum security institutions without walls or security barriers, escape is not difficult. For this reason men are carefully selected for transfer and are informed that an escape may result in an additional sentence and forfeiture of all deductions for good conduct from the sentence he was then serving. The law specifies that certain types of offenders cannot be transferred to the camps, specifically those serving life sentences for first degree murder or sentences for rape or assault to commit rape.

The courts do not commit men directly to either MCI-Norfolk, or Forestry Camps.

The Division of Research of the Massachusetts Department of Correction previously published a recidivism follow-up analysis of the releasees from the Massachusetts State Correctional Institutions in the year 1971.[4]   One important result cited in this report pointed to an interesting pattern regarding the recidivism rate of MCI-Walpole commitments when differentiated by institution of release. It was determined that the recidivism rate of individuals committed to MCI-Walpole and directly released from Walpole was 27%. In contrast to this, the recidivism rate of residents committed to MCI-Walpole but directly released from MCI-Norfolk was 17%; and the recidivism rates of MCI-Walpole commitments released from MCI-Forestry Camps was 13%. Walpole commitments who were transferred to and released from either MCI's-Norfolk or Forestry Camps, then, had a significantly lower recidivism rate than those residents who were committed to and released from MCI-Walpole.[5]   These results are summarized in Table I, below.

TABLE I

RECIDIVISM RATE OF WALPOLE COMMITMENTS BY INSTITUTION OF RELEASE

Releasing Institution	Number	Percent	Recidivism Rate
MCI-Walpole	150	(31)	27%
MCI-Norfolk	216	(45)	17%
MCI-Concord	23	(5)	15%
MCI-Forestry	95	(20)	13%
TOTAL	484	(100)	19%

The author of the above mentioned report suggested that these differences might be accounted for by at least two possible hypotheses: (1) low recidivist risks men were selected for transfers, specifically to MCI's-Norfolk and Forestry Camps, disproportionately, and thus these facilities had lower recidivism rates; or, (2) there was a rehabilitative or reintegrative quality to the movement from a maximum to medium or minimum security institution, as compared to direct release from a maximum security institution. It is the purpose of this study to test if either of the above hypotheses are in fact supportable.

Research evaluations of this nature must always deal with the problem of a possible selection bias. Keller and Alper (1970)

in their criticism of the Illinois Youth Commission's claim of
a lower failure rate at the state's forestry camps suggested that:

> "The Commission's forestry camps claim a lower
> failure rate than the commission's other
> facilities, but any comparative evaluation
> of the success rates of camps versus closed
> institutions is without validity because the
> selection process which takes place at time
> of intake sends only the less serious offenders
> to open institutions."[6]

The authors continued their criticism of methods used to assess
the results and effectiveness of correctional programs asserting
that:

> "most state correctional agencies do not
> undertake controlled surveys, reporting
> rather in the most general terms on their
> rates of success without consideration for
> random assignment, matched groups, or
> comparison with the effectiveness of other
> agencies"[7]

In a study concerning recidivism among inmates released
from Massachusetts Forestry Camps, Carney and Bottome (1967),
determined that men were selected for the camps on the basis of
a judgment as to how they will adjust to the camp routine.[8]
This, they determined, did not always mean that the best risks
in terms of recidivism were transferred to the camps. The actual
recidivism rate of the Carney and Bottome forestry sample was
calculated to be 52.3%, while the expected rate was 57.7%.
Despite the fact that the difference between the two rates was
not statistically significant, it was in a favorable direction
and it did approach significance ($X^2=3.15$, df=1, $P < .10$). Using
expected rates of recidivism as a comparative measure the
researchers did control to some degree then for the type of
inmate transferred to the camps.

From their analysis it was further determined that sex
offenders had the lowest recidivism rate of all types of offenders
studied. The law which excludes sex offenders from the camps,
then, actually tends to have a lowering effect on the return
rate at the other institutions. It should be pointed out that
only those men who volunteer are considered for transfer to
the camps. Coupled with the added pressure of keeping the
camps full, this fact becomes significant. Maintaining the camps
at full capacity with the dependence on volunteers, lowers the
degree of selectivity then for transfer to the forestry facilities.

The data presented in the Carney and Bottome study strongly
suggest that the probability for recidivism was not a major
consideration for transfer to a forestry camp. The findings
of this study seem to be at odds, then, with the theory that
low recidivist risk men might have been selected for transfers
to MCI-Forestry Camps.

This study, like the Carney and Bottome report, will address itself to Keller and Alper's criticisms by applying a base expectancy table to the Walpole commitments (treatment sample) in the sample who were transferred to and released from MCI's Norfolk and Forestry Camps. The expected rates of recidivism derived from the base expectancy tables will be used to test the possibility of selection factors accounting for the lower rates of recidivism for Walpole commitments released from Norfolk and Forestry Camps. In this way, the possibility that a low or high risk population may have been chosen in the process of selection for the programs will have been controlled for.

Research Design

Research Questions:

This study will address the following two research questions:

(1) Were low recidivist risks men selected for transfers specifically to MCI's Norfolk and Forestry Camps, disproportionately, thus accounting for these facilities lower recidivism rates?

(2) Was there a reintegrative or rehabilitative quality to the movement from a maximum to medium or minimum security institution, as compared to direct release from a maximum security institution?

Samples:

The treatment samples consisted of the MCI-Norfolk and MCI-Forestry Camp releases in the year 1971 who were originally committed to MCI-Walpole. The Norfolk sample contained 216 individuals while the Forestry Camp releasee population totaled 95.

The control sample was made up of the 155 individuals who were released from MCI-Walpole during the year 1971.

Data Collection:

From the computerized data base of the Correction/Parole Information System, 39 items of information were generated (see Appendix I for a list of these items and the official definition of these terms), all related to the releases, criminal history and background, pertaining to his present incarceration. A 40th item, the variable recidivism, was collected and added to the other variables.

Development of Base Expectancy Tables

Base expectancy categories have long been used by the Massachusetts Department of Correction both for program evaluation and as an aid in the decision making process.

The method used in this study to construct a base expectancy table is called predictive attribute analysis or successive dichotomization. Using this method, the sample was divided into two sub-groups for each variable, used in the analyses. A recidivism rate was then derived for the two sub-groups.[9] The variable with the most significant differences in recidivism was selected. This procedure was continued until the sub-group became too small to produce significant differences in the recidivism rates. A predictive attribute analysis, then, was run on a population consisting of all releases from MCI-Walpole in 1971. The total sample consisted of 155 males. The successive sub-grouping of the predictive attribute analysis was accessed by a computer program designated "Max-Chi Square."[10] The completed analysis resulted in the base expectancy table presented below:

TABLE II

BASE EXPECTANCY TABLE

Total Sample RR = 27%	Total Number of Charges 14 or Less RR = 11%	Age 24 or Older At Time of Release RR = 6%
		Age 23 or Younger At Time of Release RR = 36%
	Total Number of Charges 15 or More RR = 41%	Military Service Some RR = 20%
		Military Service None RR = 54%

From Table VII it can be seen that while the MCI-Walpole
commitments released from MCI-Norfolk had an expected recidivism
rate of 23.3% their actual recidivism rate was 17.6%. MCI-Walpole
commitments released from MCI-Forestry Camps exhibited an
expected recidivism rate of 19.9% while their actual rate was
12.6%. Using the Chi Square goodness of fit test it was deter-
mined, in terms of statistical significance that the difference
between the expected and actual rates of recidivism was significant
for the Norfolk releasee sample. The difference for the combined
Norfolk and Forestry Camp sample was also significant. It
should be noted that the difference for the Forestry Camp sample,
though approaching significance, was not statistically significant.

Controlling for a possible selection bias the results of
this comparison between expected and actual recidivism rates
supports the contention, then, that there is, to some degree,
a reintegrative or rehabilitative quality in the movement from
maximum to medium and minimum security levels in the Massachusetts
Department of Correction.

FOOTNOTES

1. G.L., c.279, s.31.

2. Edwin Powers, The Basic Structure of the Administration of Criminal Justice in Massachusetts (Boston: Massachusetts Correctional Association, 1973), P.121.

3. Ibid., P.210.

4. Daniel LeClair, Statistical Tables Describing the Characteristics and Recidivism Rates of 1971 Releasees From Massachusetts Correctional Institutions, Massachusetts Department of Correction Publication No. 111, March 1976.

5. In terms of statistical significance, individuals originally committed to MCI-Walpole but subsequently transferred to and released from MCI-Norfolk had significantly lower recidivism rates than those who remained at MCI-Walpole ($x^2=5.50$, $P<.02$, 1df); individuals originally committed to MCI-Walpole but subsequently transferred to and released from MCI-Concord were not significantly different than those who remained at MCI-Walpole [$x^2=1.23$ (Yates correction applied), $P>.05$, 1df]; and individuals committed to MCI-Walpole but subsequently transferred to and released from Forestry Camps had significantly lower recidivism rates than those who remained at MCI-Walpole ($x^2=7.42$, $P<.01$, 1df).

6. Oliver J. Keller, Jr., and Benedict S. Alper, Halfway Houses (Lexington: Health Lexington Books, 1970), P.145.

7. Ibid.

8. Francis J. Carney and Estelle D. Bottome, An Analysis of Recidivism Among Inmates Released From the Forestry Camps, Massachusetts Department of Correction Publication No. 11, March, 1967.

9. For the purpose of this study a person was defined as a recidivist if he became incarcerated in a Federal, State, County or Town correctional facility for 30 days or more during the first year following his release.

10. The max-chi square computer program was developed by Tom Cannon, Research Analyst, Massachusetts Department of Correction. The author of this study actually ran the Base Expectancy analysis.

11. To determine statistical significance, the x^2, goodness of fit test was utilized:

$$x^2 = \sum \frac{(observed-expected)^2}{expected}$$

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 man-
slaughter (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).

<u>Unnatural and Lascivious Acts</u> (Chapter 272)
   includes unnatural acts, lascivious acts,
assaults to commit unnatural sex acts (section 35) .

<u>Unnatural Acts with Child under 16</u> (section 31)
<u>Sodomy and Buggery</u> (section 34)
<u>Incest</u> (section 17)
<u>Other Sex Offenses</u>
   includes adultery, fornication, indecent exposure,
lewd lascivious cohabitation, lewdness, open
and gross lewdness. (sections 14, 16, 18, 53)

c.   <u>Crimes Against Property</u> (Chapter 266)

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

<u>Burglary, Being Armed or Making an Assault</u>

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

<u>Burglary</u>
   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)

<u>Possession of Burglary Implements</u> (section 49)
<u>Stealing</u>
   includes stealing in building, ship, at a fire,
etc. (sections 20,24)

<u>Larceny from the Person</u> (section 25)
<u>Larceny</u>
   includes attempted larceny. (section 20)

<u>Theft of a Motor Vehicle</u>
   includes larceny of a motor vehicle, operation
without authority of owner after suspension, opera-
tion without authority of owner, use without
authority (section 28)

<u>Forgery and Uttering</u>
   include forgery, uttering, counterfeiting
(section 37 and 37A and Chapter 267, sections 1-31)

<u>Common and Notorious Thief</u> (section 40)
<u>Fraud</u>
   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 in-
volving "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, dis-
pensing or possession with intent to manufacture,
distribute or dispense a controlled substance.

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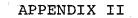
      Drug User (mention of the use of any drug other
          than heroin or marijuana - the exclusive use
          of Marijuana)

      Drug User (Marijuana only drug mentioned)

D-3. Type of Release

        Parole

        Discharge

APPENDIX II

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

EXPECTED RATE OF CATEGORY X NUMBER OF INDIVIDUALS IN CATEGORY

TOTAL NUMBER OF INDIVIDUALS IN SAMPLE

For example, if we take the Norfolk sample, the expected rate of recidivism would be calculated in the following manner:

Risk Category	Expected Rate	Number	Computation
I	.54	56	30.24
II	.36	22	7.92
III	.20	28	5.60
IV	.06	110	6.60
		216	50.36

EXPECTED RATE = $\frac{50.36}{216}$

EXPECTED RATE = 23.3%

In the above procedure the risk category is the specific Base Expectancy Risk Category computed from the construction of the Base Expectancy Table for the control group i.e., the Walpole 1971 releasee sample (see Table III Page 6 for specific listing and description of the four (4) risk categories). The expected rate is the appropriate expected recidivism rate for the individual risk category (see also Table III Page 6 for specific rate) while the 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. Total Number is the total number of individuals in the sample for which an expected rate is being determined.

The specific mathematical computations made for each of the derived expected rates are presented below:

Sample	Risk Category	Expected Rate	Number	Computations
Forestry	I	.54	19	10.26
Releases	II	.36	10	3.60
	III	.20	8	1.60
	IV	.06	58	3.48
			95	18.94

$\frac{18.94}{95}$ = EXPECTED RATE = 19.9%

Sample	Risk Category	Expected Rate	Number	Computations
Total Releasee Sample	I	.54	75	40.50
	II	.36	32	11.52
	III	.20	36	7.20
	IV	.06	168	10.08
			311	69.30

$$\frac{69.30}{311} = \text{EXPECTED RATE} = 22.3\%$$