



State of Wisconsin \ OFFICE OF THE GOVERNOR

WISCONSIN COUNCIL ON CRIMINAL JUSTICE

SPECIAL REPORT: THE IMPACT  
OF THE MUTUAL AGREEMENT PROGRAM ON  
THE AMOUNT OF TIME SERVED IN  
WISCONSIN CORRECTIONAL INSTITUTIONS



44252

PROGRAM EVALUATION REPORT

SPECIAL REPORT: THE IMPACT  
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THE AMOUNT OF TIME SERVED IN  
WISCONSIN CORRECTIONAL INSTITUTIONS

NCJRS

JAN 23 1978

ACQUISITIONS

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WISCONSIN COUNCIL ON CRIMINAL JUSTICE

December 1977

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## EXECUTIVE SUMMARY

One of the major objectives of the Mutual Agreement Program (MAP) has been a reduction in the length of incarceration for inmates admitted to the Wisconsin Correctional System. This report addresses the question of whether or not that objective was achieved.

The data for this report were supplied to the Wisconsin Council on Criminal Justice (WCCJ) by the Office of Systems and Evaluation within the Wisconsin Division of Corrections (DOC). The design and implementation of the design that generated the data are part of a larger DOC evaluation of MAP. WCCJ has received excellent cooperation from the Office of Systems and Evaluation in preparing this report.

Initial analyses indicated individuals who completed the MAP program serve an average of 2.8 months less time than individuals who did not participate. Participation in the MAP program involves both self selection and selection by the Parole Board. Valid comparisons between MAP participants and those who did not participate in MAP, were conducted only after statistical adjustments were made to the data. This became necessary because variables related to MAP participation were also related to the length of incarceration. A multiple regression procedure was used to statistically adjust for differences between MAP participants and those who did not participate in MAP on such key variables as the length of sentence, prior felony convictions, type of admission and type of offense. When such adjustments were made, there was no evidence to show that the MAP participants served less time than the individuals who did not participate in MAP. There is some evidence that suggests that a MAP participant would serve more time than a similar individual who did not participate in the MAP program.

The statistical procedures utilized in this report are complex. The report makes every effort to make these procedures understandable to the lay reader. The statistical procedures in this report are utilized because the comparison between "unadjusted" averages does not provide a valid answer to the question of MAP's impact on the amount of time served by correctional inmates. While no answer to such a question can be 100% valid, WCCJ is confident that the procedures utilized provide the most scientifically valid response possible to the question at this time.

## I. PURPOSE OF THE REPORT

The Mutual Agreement Program (MAP) is a type of contract parole program. An inmate in the Wisconsin Correctional System can enter into a contract with the Secretary of the Department of Health and Social Services (DHSS). Such a contract can ensure the inmate a definite release date, specific transfers within the correctional system and slots in particular programs operated by the State Division of Corrections (DOC). This program was initially funded by funds from the Wisconsin Council on Criminal Justice (WCCJ) and has been in operation since October 1974.

An important objective of the MAP project is to "reduce the average length of stay in Wisconsin correctional institutions." The biennial budget for the Division of Corrections is based upon the objective of reducing the time served by MAP participants by two months. This report examines the issue of the MAP project's impact on the amount of time served by Wisconsin correctional inmates.

The MAP project has been externally evaluated three times since its inception (see the John Howard Association, 1975; Brinkman and Susmilch, 1976; the John Howard Association, 1977). In addition, the DOC has released several Statistical Bulletins which present data on the characteristics of program participants. A recent report issued by DOC is the first evaluation to deal with the impact of the MAP project on the time served by correctional inmates (i.e., Mutual Agreement Program - Practical Outcome Evaluation, Division of Corrections, Madison, Wisconsin, July 1977). This report expands upon the earlier DOC report in two respects; first, it deals with about twice as many cases and second, it takes into account more variables that impact the time served than does the DOC report.

## II. METHOD

This report utilizes data supplied to WCCJ by the DOC. The methodology which yielded the data was designed and implemented by DOC. The data tape contains entries from 1,062 separate individuals who were released by the DOC during or prior to October 1976. These 1,062 individuals are broken down into four "naturally occurring groups" for the purpose of this report. These are:

MAP Graduates. Sample size = 589. This group is comprised of all individuals who had successfully completed MAP contracts and had been released by October 1976.

Not MAP Group. Sample size = 157. This group consists of individuals who throughout their incarceration never

initiated the MAP contracting process and who had been released by October 1976. This group is a subset of a much larger group of releasees who had no contact with MAP throughout their incarceration. The Not MAP releasees were selected from this larger group each month and in fixed proportion (25%) to the number of MAP Graduates for the month. For example, if 24 MAP Graduates were released in a particular month, six Not MAP individuals would be selected at random from the group of persons released that month who had not initiated the MAP process; if 40 MAP Graduates were released, ten Not MAP individuals would be selected from the released group who did not initiate the MAP process. This aspect of the design automatically controls for the month of release when making comparisons between the MAP Graduate and the Not MAP groups.

No Contract. Sample size = 212. This group contains all individuals who had initiated the MAP process, but who did not contract with the Secretary of the Department of Health and Social Services. This group includes all such individuals released as of October 1976.

Cancelled. Sample size = 104. This group includes individuals who had entered into MAP contracts and had either withdrawn from the contracts or had their contracts cancelled for non-fulfillment of contractual obligations. All such persons who met these criteria and were released by October 1976 were included in this group.

These four "naturally occurring" groups were utilized to examine the question of MAP's impact on TIMESERVED.<sup>1</sup> The use of "naturally occurring" as opposed to "experimenter determined" groups created problems in assessing the impact of MAP on TIMESERVED. If the comparison groups had been determined by random assignment of persons to either MAP or Not MAP conditions we would have been reasonably confident (within a known level of probability) in assuming the groups were equivalent from the beginning on factors that are likely to normally have an impact on the amount of TIMESERVED. We could have then simply compared the average TIMESERVED for the two groups and been reasonably confident in attributing any differences that occurred with respect to TIMESERVED to the MAP project. Because the groups were not determined in this way we have to depend upon statistical procedures to control for or adjust for such initial differences.

<sup>1</sup> TIMESERVED is the major dependent variable in this analysis. The names of all variables in this report are written in capital letters.

Although the statistical procedures to perform such adjustments are well known in behavioral sciences such as economics, sociology and psychology, their usage is relatively complex and fraught with pitfalls. One of the most troublesome pitfalls is that all of the variables that impact the dependent variable (in this report, TIMESERVED) and that are correlated to the treatment variable (in this report, participation in MAP), must be controlled statistically. In this instance, the variables to be controlled are those that impact on parole board decisions to recommend parole. The variables selected have been incorporated into the Parole Board's own recent efforts to comprise Parole Guidelines. While not all of the variables incorporated into the Parole Guidelines were available for this analysis, we believe the major variables are incorporated in this report.

The variables utilized as controls in this report are: 1) TYPE OF ADMISSION 2) SENTENCE LENGTH 3) TYPE OF OFFENSE and 4) PRIOR FELONY CONVICTIONS. The statistical procedure utilized to adjust for initial differences is multiple regression analysis; this procedure is carefully described in text entitled Multiple Regression in Behavioral Research by Kerlinger and Pedhazur (1973).

### III. OPERATIONALIZATION OF THE VARIABLES

The variables utilized in this report are operationalized as follows.

#### A. TIMESERVED

TIMESERVED is the major dependent variable being analyzed. It is measured to the nearest 1/10 of a month (e.g., six months twenty days = 6.7 months). The average TIMESERVED by the 1,062 individuals in our sample is 21.45 months. As will be explained in the section below regarding the TYPE OF ADMISSION variable, the major portion of this report involves 1,000 "New Sentence" individuals. The mean TIMESERVED for this group is 21.7 months.

#### B. MAP STATUS

MAP STATUS is the treatment variable being analyzed. The four MAP groups have been described previously. The sample size for the group of 1,000 "New Sentence" individuals is:

Not MAP = 134  
No Contract = 202  
Cancelled = 100  
MAP Graduates = 564

#### C. TYPE OF ADMISSION

Table 1A presents data on the MAP STATUS of 1,062 individuals and on the TYPE OF ADMISSION of these individuals. Table 1A is collapsed or reformatted into Table 1B so that the relationship between MAP STATUS and a single dimension of TYPE OF ADMISSION (i.e., New Sentence vs. No New Sentence) can be examined more closely. (The No New Sentence group is comprised of those individuals who have been returned to prison as the result of technical parole violations only.) The great majority of the 1,062 individuals (94.5%) are classified as "New Sentence" cases. It can also be seen that the "No New Sentence" cases are more likely to occur in the Not MAP group as opposed to the other groups (13.4% vs. 2.9% to 4.7%). Controlling for this dimension in subsequent analyses would be problematic because of the small samples involved (e.g., only three individuals in the Cancelled group fit this classification). The TIMESERVED experience of the "No New Sentence" individuals is also quite different. Table 2A presents the TIMESERVED by the various categories of TYPE OF ADMISSION, Table 2B presents the same data in a different format to accent the New Sentence dimension.

Table 2B shows that 48.3% of the No New Sentence cases were released in 12 months or less while 21.9% of the "New Sentence" cases were released in 12 months or less. The



TABLE 1A: TYPE OF ADMISSION BY MAP STATUS AT RELEASE [N(%)]

|   | Not MAP |        | No Contract |        | Cancelled |        | MAP Graduates |        | Totals |        |
|---|---------|--------|-------------|--------|-----------|--------|---------------|--------|--------|--------|
|   | N       | %      | N           | %      | N         | %      | N             | %      | N      | %      |
| 1) New Sentence/<br>Not a Violator                                  | 69      | (44.0) | 101         | (47.6) | 38        | (36.5) | 274           | (46.5) | 482    | (45.4) |
| 2) New Sentence/<br>Probation Violator                              | 50      | (31.8) | 81          | (38.2) | 50        | (48.1) | 257           | (43.6) | 438    | (41.3) |
| 3) New Sentence/<br>Parole Violator                                 | 10      | ( 6.4) | 11          | ( 5.2) | 9         | ( 8.7) | 20            | ( 3.4) | 50     | ( 4.7) |
| 4) Mandatory Release<br>New Sentence/<br>Violator                   | 5       | ( 3.2) | 7           | ( 3.3) | 2         | ( 1.9) | 11            | ( 1.9) | 25     | ( 2.4) |
| 5) Return from<br>Juvenile Parole<br>New Sentence/<br>Violator      | 2       | ( 1.3) | 2           | ( 0.9) | 2         | ( 1.9) | 3             | ( .5)  | 9      | ( 0.9) |
| 6) Return from Adult<br>Parole<br>No New Sentence/<br>Violator      | 15      | ( 9.6) | 4           | ( 1.9) | 2         | ( 1.9) | 14            | ( 2.4) | 35     | ( 3.3) |
| 7) Return from<br>Mandatory Release<br>No new Sentence/<br>Violator | 6       | ( 3.8) | 6           | ( 2.8) | 1         | ( 1.0) | 10            | ( 1.7) | 23     | ( 2.2) |
| <u>Total</u> *  | 157     | (100)  | 212         | (100)  | 104       | (100)  | 589           | (100)  | 1062   | (100)  |

TABLE 1B: NEW SENTENCES VS. NO NEW SENTENCES BY MAP STATUS AT RELEASE

|                                 |     |       |     |       |     |       |     |         |      |        |
|---------------------------------|-----|-------|-----|-------|-----|-------|-----|---------|------|--------|
| New Sentences<br>(1-5 above)    | 136 | 86.6  | 202 | 95.3  | 101 | 97.1  | 565 | ( 95.9) | 1004 | (94.5) |
| No New Sentences<br>(6,7 above) | 21  | 13.4  | 10  | 4.7   | 3   | 2.9   | 24  | ( 4.1)  | 58   | ( 5.5) |
| <u>Totals</u> *                 | 157 | (100) | 212 | (100) | 104 | (100) | 589 | (100)   | 1062 | (100)  |

\*  
Percentage may not add to 100%  
due to rounding error.

TABLE 2A: TIME SERVED BY TYPE OF ADMISSION [N(%)]

|                                    | NEW SENTENCE |                    |                 |             |                 | NO NEW SENTENCE |             |            | TOTAL |
|------------------------------------|--------------|--------------------|-----------------|-------------|-----------------|-----------------|-------------|------------|-------|
|                                    | NOT VIOLATOR | PROBATION VIOLATOR | PAROLE VIOLATOR | MR VIOLATOR | JUVENILE PAROLE | PAROLE VIOLATOR | MR VIOLATOR |            |       |
|                                    | N %          | N %                | N %             | N %         | N %             | % %             | N %         |            |       |
| 6 MONTHS AND LESS                  | 16 ( 3.3)    | 6 ( 1.4)           | 0 (0)           | 0 (0)       | 0               | 7 (20.0)        | 1 ( 4.3)    | 30 ( 2.8)  |       |
| MORE THAN 6 MONTHS<br>TO 12 MONTHS | 101 (21.0)   | 91 (20.8)          | 5 (10)          | 1 ( 4)      | 0               | 13 (37.1)       | 7 (30.4)    | 218 (20.5) |       |
| MORE THAN 12<br>MONTHS TO 18 MONS. | 127 (26.3)   | 156 (35.6)         | 4 ( 8)          | 5 (20)      | 0               | 5 (14.3)        | 8 (34.8)    | 305 (28.7) |       |
| MORE THAN 18 MONS<br>TO 24 MONS.   | 82 (17.0)    | 86 (19.6)          | 9 (18)          | 4 (16)      | 3 (33.2)        | 4 (11.4)        | 3 (13.0)    | 191 (68.0) |       |
| MORE THAN 24 MONS.<br>TO 30 MONS.  | 49 (10.2)    | 54 (12.3)          | 9 (18)          | 4 (16)      | 0               | 2 ( 5.7)        | 3 (13.0)    | 121 (11.4) |       |
| MORE THAN 30 MONS<br>TO 36 MONS.   | 45 ( 9.3)    | 20 ( 4.5)          | 10 (20)         | 6 (24)      | 0               | 2 ( 5.7)        | 0           | 83 ( 7.8)  |       |
| MORE THAN 36 MONS.<br>TO 48 MONS.  | 30 ( 6.2)    | 17 ( 3.9)          | 11 (22)         | 3 (12)      | 2 (22.2)        | 0               | 1 ( 4.3)    | 64 ( 6.0)  |       |
| MORE THAN 48 MONS.<br>TO 60 MONS.  | 23 ( 4.8)    | 4 ( 1.0)           | 0 ( 0)          | 1 ( 4)      | 2 (22.2)        | 0               | 0           | 30 ( 2.8)  |       |
| MORE THAN 60 MONS.<br>TO 72 MONS.  | 5 ( 1.0)     | 3 ( 1.0)           | 2 ( 4)          | 1 ( 4)      | 1 (11.1)        | 2 ( 5.7)        | 0           | 14 ( 6.3)  |       |
| MORE THAN 72 MONS.                 | 4 ( 1.0)     | 1 ( 0.2)           | 0 ( 0)          | 0 (0)       | 1 (11.1)        | 0               | 0           | 6 ( 1.0)   |       |
| TOTALS *                           | 482 (100)    | 438 (100)          | 50 (100)        | 25 (100)    | 9 (100)         | 35 (100)        | 23 (100)    | 1062 (100) |       |

\*Percentage may not add to 100% due to rounding error

\*\*\*TABLE 2B FOLLOWS ON NEXT PAGE \*\*\*

TABLE 2B: TIME SERVED BY NEW SENTENCES VS. NO NEW SENTENCES

|                                    | NEW SENTENCES |        | NO NEW SENTENCES |        | TOTAL |        |
|------------------------------------|---------------|--------|------------------|--------|-------|--------|
|                                    | N             | %      | N                | %      | N     | %      |
| 6 MONTHS AND LESS                  | 22            | ( 2.2) | 8                | (13.8) | 30    | ( 2.8) |
| MORE THAN 6 MONTHS<br>TO 12 MONTHS | 198           | (19.7) | 20               | (34.5) | 218   | (20.5) |
| MORE THAN 12<br>MONTHS TO 18 MONS. | 292           | (29.1) | 13               | (22.4) | 305   | (28.7) |
| MORE THAN 18 MONS<br>TO 24 MONS.   | 184           | (18.3) | 7                | (12.1) | 191   | (18.0) |
| MORE THAN 24 MONS.<br>TO 30 MONS.  | 116           | (11.6) | 5                | ( 8.6) | 121   | (11.4) |
| MORE THAN 30 MONS<br>TO 36 MONS.   | 81            | ( 8.1) | 2                | ( 3.4) | 83    | ( 7.8) |
| MORE THAN 36 MONS.<br>TO 48 MONS.  | 63            | ( 6.3) | 1                | ( 1.7) | 64    | ( 6.0) |
| MORE THAN 48 MONS.<br>TO 60 MONS.  | 30            | ( 3.0) | 0                | ( 0 )  | 30    | ( 2.8) |
| MORE THAN 60 MONS.<br>TO 72 MONS.  | 12            | ( 1.2) | 2                | ( 3.4) | 14    | ( 1.3) |
| MORE THAN 72 MONS.                 | 6             | ( 0.6) | 0                | ( 0 )  | 6     | ( 1.0) |
| TOTALS *                           | 1004          | (100)  | 58               | (100)  | 1062  | (100)  |

\*Percentage may not add to 100% due to rounding error

Parole and Mandatory Release violators that make up the No New Sentence category are likely to know when they return to the institution how much time they will have to serve. Often this time is relatively short; only 37 of these individuals have entered into the MAP process (24 have graduated). For subsequent analyses we elected to limit the analysis to the 1,004 "New Sentence" cases, an additional four individuals are dropped from subsequent analyses because they had missing data on the SENTENCE LENGTH variable. The effect of this decision to only deal with "New Sentence" cases can be partially examined in Table 3 on the next page which shows the average TIMESERVED by the MAP STATUS groups.

This decision increases the mean TIMESERVED for the Not MAP group by one month, but only impacts the mean TIMESERVED of the other groups by a maximum of 0.1 of a month. This decision then makes the MAP Graduates look better in terms of TIMESERVED than the Not MAP group. We believe this decision is justifiable because those persons excluded were never candidates for the MAP program (because of the short amount of time they had to serve), hence their inclusion is misleading. (DOC's "Practical Outcome Report" also indicates these problems with this group.)

The final categorization of the TYPE OF ADMISSION variable is as follows:

New Sentence - Not A Violator (N = 506)  
New Sentence - Probation Violator (N = 396)  
New Sentence - Other Violator (N = 125)  
(This final category categorizes groups 3, 4, and 5 from Table 1A as a single group.)

D. PRIOR FELONY CONVICTIONS

This variable is taken directly from the DOC admissions form. The categories utilized are: Zero = 0 Prior Felony Convictions (N = 553); One = 1 Prior Felony Conviction (N = 266); Two = 2 Prior Felony Convictions (N = 81); Three or More = 3 or More Prior Felony Convictions (N = 100).

E. SENTENCE LENGTH

SENTENCE LENGTH is measured in months and is taken from the DOC admissions form. This variable was updated for the present analysis to reflect changes that occurred during an inmate's institutionalization. In the case of concurrent sentences the longest sentence in months is utilized, in the case of consecutive sentences the total sentence is utilized. The mean SENTENCE LENGTH for the sample of 1,000 was 46.5 months.

Table 3: Average TIMESERVED by MAP STATUS and Sample Utilized

|                             | Not MAP                          | No Contract                      | Cancelled                        | MAP                              | Total                             |
|-----------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|
| Total Sample<br>(N = 1012)  | $\frac{N}{X} = \frac{157}{22.7}$ | $\frac{N}{X} = \frac{212}{20.6}$ | $\frac{N}{X} = \frac{104}{25.3}$ | $\frac{N}{X} = \frac{589}{20.8}$ | $\frac{N}{X} = \frac{1002}{21.5}$ |
| New Sentences<br>(N = 1000) | $\frac{N}{X} = \frac{134}{23.7}$ | $\frac{N}{X} = \frac{202}{20.7}$ | $\frac{N}{X} = \frac{100}{25.2}$ | $\frac{N}{X} = \frac{564}{20.9}$ | $\frac{N}{X} = \frac{1000}{21.7}$ |

Table 4: Sentence Information by MAP STATUS

|                              | Not MAP | No Contract | Cancelled | MAP Grads. | Total |
|------------------------------|---------|-------------|-----------|------------|-------|
| Number in Group              | 134     | 202         | 100       | 564        | 1000  |
| Mean Sentence                | 61.45   | 40.67       | 45.39     | 45.28      | 46.53 |
| Minimum for Group            | 12      | 12          | 12        | 12         | 12    |
| Maximum for Group            | 600     | 156         | 180       | 180        | 600   |
| Standard Deviation for Group | 84.55   | 26.80       | 28.03     | 25.90      | 39.87 |

F. TYPE OF OFFENSE

The offenses for which the individuals in this report were convicted were classified into three categories. A detailed breakdown of the actual offenses utilized to make up these categories appears in Appendix A. The distribution of cases in these categories is as follows: Crimes Against the Person (N = 251); Crimes Against Property (N = 613); Other Crimes (N = 136). The final category is made up of offenses like possession and sale of dangerous drugs, and prostitution.

G. RESULTS

Bivariate Relationships with the Treatment Variable - MAP STATUS and with the Dependent Variable - TIMESERVED

1. MAP STATUS AND SENTENCE LENGTH

Table 4 presents information regarding the relationship between the MAP comparison groups and the length of sentence.

The most unusual group is the Not MAP group. Examination of a detailed crosstabulation indicates that five individuals in this group had sentences of more than 180 months, thus it is clear that these individuals had longer sentences on the average than their counterparts in the other groups. (This is largely due to the five long sentences identified. Each groups median sentence lies in the 30-36 month range.) The mean sentence length for the Not MAP group is approximately 48 months excluding these five cases. In later analyses we examine the impact of these five unusual cases on the results. (The technical name for such cases is "outliers" and they are sometimes problematic for analyzing data.)

2. THE RELATIONSHIP BETWEEN TIMESERVED AND SENTENCE LENGTH

As expected the amount of TIMESERVED is closely related to the SENTENCE LENGTH received. The overall correlation between SENTENCE LENGTH and TIMESERVED is .754. The correlations within each of the MAP STATUS groups is presented in Table 5.

3. MAP STATUS AND TYPE OF ADMISSION

Table 6 presents data on the relationship between MAP STATUS and the TYPE OF ADMISSION. Differences that appear substantial involve a greater proportion of MAP Graduates falling into the Probation Violator Group (41.5%) vs. the Not MAP group which is made up

Table 5: Correlation Between TIMESERVED and Sentence by MAP STATUS

|             | Not MAP | No Contract | Cancelled | MAP Graduates |
|-------------|---------|-------------|-----------|---------------|
| Sample Size | 134     | 202         | 100       | 564           |
| Correlation | .804    | .781        | .847      | .823          |

Table 6: Type of Admission by MAP STATUS (%)

|                    | Not MAP      | No Contract   | Cancelled    | MAP Graduate  | Total         |
|--------------------|--------------|---------------|--------------|---------------|---------------|
| Not a Violator     | 68<br>(50.8) | 101<br>(50.0) | 37<br>(37.0) | 273<br>(48.4) | 479<br>(47.9) |
| Probation Violator | 41<br>(30.6) | 75<br>(37.1)  | 46<br>(46.0) | 234<br>(41.5) | 396<br>(39.6) |
| Other Violator     | 25<br>(18.7) | 26<br>(12.9)  | 17<br>(17.0) | 57<br>(10.1)  | 125<br>(12.5) |
| Totals *           | 134<br>(100) | 202<br>(100)  | 100<br>(100) | 564<br>(100)  | 1000<br>(100) |

\* Percentages may not add to 100% due to rounding.

Probability of Chi Square greater than 15.81 with six degrees of freedom = .0148.

of 30.6% Probation Violators. (The Not MAP group proportionately has fewer Probation Violators than the No Contract and Cancelled groups.) In addition the Not MAP group contains a larger proportion of those in the Other Violator category (mostly parole and mandatory release violators). It would appear then that MAP project tends to draw or select those individuals who are Probation Violators as opposed to Other Violators, although the fact that 10.1% of the MAP Graduates are classified as Other Violators indicates that Other Violators are not excluded from MAP.

4. TIMESERVED AND TYPE OF ADMISSION

Table 7 presents data on the TIMESERVED by each of the TYPE OF ADMISSION groups.

The Other Violator group serves about 10 months more than the Not a Violator group and about 14.5 months longer than the Probation Violator group. The TYPE OF ADMISSION has a substantial impact on TIMESERVED.

5. MAP STATUS AND TYPE OF OFFENSE

Table 8 presents data on the relationship between MAP STATUS and TYPE OF OFFENSE.

The MAP project does not appear to draw or select on the basis of the TYPE OF OFFENSE an individual has committed. Any trend would suggest that Property as opposed to Person Offenders find their way into MAP.

6. TIMESERVED AND TYPE OF OFFENSE

Table 9 presents information regarding the relationship between TIMESERVED and TYPE OF OFFENSE. Person Offenders served approximately ten months more than Property Offenders and about 13 months more than individuals classified as Other Offenders. This variable has a substantial impact on the amount of TIMESERVED.

7. MAP STATUS AND PRIOR FELONY CONVICTIONS

Table 10 presents data on the relationship between MAP STATUS and Prior Felony Convictions. Examination of Table 10 suggests that MAP either draws or selects individuals with fewer Prior Felony Convictions. About 28% of the Not MAP group is made up of individuals with two or more Prior Felony Convictions, about 17% of the MAP Graduates have comparable prior records.



Table 7: TIMESERVED Information by TYPE OF ADMISSION

|                        | Not a Violator | Probation Violator | Other Violator | Total |
|------------------------|----------------|--------------------|----------------|-------|
| Number in Group        | 479            | 396                | 125            | 1000  |
| Mean <u>TIMESERVED</u> | 22.33          | 17.7               | 32.1           | 21.7  |
| Minimum for Group      | 3.4            | 5.8                | 6.2            | 3.4   |
| Maximum for Group      | 113.3          | 48.0               | 101.4          | 113.3 |
| Standard Deviation     | 14.1           | 7.3                | 16.1           | 13.0  |

Table 8: TYPE OF OFFENSE by MAP STATUS (%)

|                          | Not MAP      | No Contract   | Cancelled    | MAP Graduates | Total         |
|--------------------------|--------------|---------------|--------------|---------------|---------------|
| Crimes Against Persons   | 39<br>(29.1) | 55<br>(27.2)  | 20<br>(20.0) | 137<br>(24.3) | 479<br>(47.9) |
| Crimes Against -Property | 77<br>(57.5) | 120<br>(59.4) | 69<br>(69.0) | 347<br>(61.5) | 396<br>(39.6) |
| Other Crimes             | 18<br>(13.4) | 27<br>(13.4)  | 11<br>(11.0) | 80<br>(14.2)  | 125<br>(12.5) |
| Totals *                 | 134<br>(100) | 202<br>(100)  | 100<br>(100) | 564<br>(100)  | 1000<br>(100) |

\* Percentages may not add to 100% due to rounding.

Probability of Chi Square greater than 4.47 with six degrees of freedom = .614.

Table 9: TIMESERVED Information by TYPE OF OFFENSE

|                    | Crimes Against<br>Persons | Crimes Against<br>Property | Other<br>Crimes | Total |
|--------------------|---------------------------|----------------------------|-----------------|-------|
| Number in Group    | 251                       | 613                        | 136             | 1000  |
| Mean Time Served   | 29.7                      | 19.6                       | 16.5            | 21.7  |
| Minimum for Group  | 6.0                       | 4.9                        | 3.4             | 3.4   |
| Maximum for Group  | 113.3                     | 82.6                       | 50.8            | 8.8   |
| Standard Deviation | 16.7                      | 10.3                       | 8.8             | 13.0  |

Table 10: PRIOR FELONY CONVICTIONS by MAP STATUS (%)

|                   | Not MAP      | No Contract   | Cancelled    | MAP Graduate  | Total         |
|-------------------|--------------|---------------|--------------|---------------|---------------|
| Zero Convictions  | 67<br>(50.0) | 119<br>(58.9) | 56<br>(56.0) | 311<br>(55.1) | 553<br>(55.3) |
| One Convictions   | 29<br>(21.6) | 52<br>(25.7)  | 30<br>(30.0) | 155<br>(27.5) | 266<br>(26.6) |
| Two Convictions   | 20<br>(14.9) | 11<br>( 5.5)  | 9<br>( 9.0)  | 41<br>( 7.3)  | 81<br>( 8.1)  |
| Three Convictions | 18<br>(13.4) | 20<br>( 9.9)  | 5<br>( 5.0)  | 57<br>(10.1)  | 100<br>(10)   |
| Total *           | 134<br>(100) | 202<br>(100)  | 100<br>(100) | 564<br>(100)  | 1000<br>(100) |

\* Percentages may not add to 100% due to rounding.

Probability of Chi Square greater than 17.19 with  
nine degrees of freedom = .046.

Table 11: TIMESERVED. Information by PRIOR FELONY CONVICTIONS

|                    | No<br>Convictions | One<br>Convictions | Two<br>Convictions | Three or<br>More Convic. | Total |
|--------------------|-------------------|--------------------|--------------------|--------------------------|-------|
| Number in Group    | 553               | 266                | 81                 | 100                      | 1000  |
| Mean TIMESERVED    | 21.6              | 20.3               | 20.0               | 27.7                     | 21.7  |
| Minimum for Group  | 3.4               | 6.0                | 6.0                | 4.6                      | 3.4   |
| Maximum for Group  | 101.4             | 99.7               | 52.3               | 113.3                    | 113.3 |
| Standard Deviation | 13.4              | 10.8               | 8.6                | 16.9                     | 13.0  |

8. TIMESERVED AND PRIOR FELONY CONVICTIONS

Table 11 presents data relevant to the relationship between TIMESERVED and Prior Felony Convictions. The results are somewhat unusual, clearly Three or More Convictions cost the individual some additional TIMESERVED, One and Two Convictions do not appear to impact the amount of TIMESERVED.

H. SUMMARY OF BIVARIATE RESULTS

The bivariate results are summarized in Table 13. The pattern that develops is that the Not MAP group differs from the other groups (No Contract, Cancelled and MAP Graduates) on each of the Paroling Criteria. The groups are most similar on the TYPE OF OFFENSE variable. The conclusion that must be drawn is that the MAP Graduate group (and to a lesser extent the No Contract and Cancelled groups) is composed of different kinds of people than the Not MAP group. It is also clear that the Paroling Variables (SENTENCE LENGTH, TYPE OF OFFENSE, TYPE OF ADMISSION AND PRIOR FELONY CONVICTIONS) are related to the amount of TIMESERVED. Because of these interrelations, direct comparisons of the average TIMESERVED across the various MAP STATUS groups are misleading if we wish to use such comparisons to discuss the impact of the MAP project on TIMESERVED. It is necessary to statistically control or adjust for the initial differences between the groups before we can profitably discuss the impact of MAP on TIMESERVED. (See Table 13 on the following page.)

Table 13: Summary of the Bivariate Relationships Between Four Paroling Criteria and MAP Status and TIMESERVED. (Cell entries summarize nature of the relationship)

|                             | MAP Status  | TIMESERVED   |
|-----------------------------|---|--|
| SENTENCE LENGTH             | The Not MAP group has substantially longer sentences than all other groups.                                 | Time Served is highly correlated with Sentence in all comparison groups.   |
| TYPE OF ADMISSION           | The Not MAP group has a lower percentage of Probation Violators and a higher percentage of Other Violators. | The Other Violator group served substantially more time than the Not Violator and Probation Violator groups. The Probation Violators serve the smallest amounts of time.                                   |
| TYPE OF OFFENSE             | No substantial relationships. Small trend for Not MAP group to more likely be Person Offenders              | The Crimes Against Persons Group serves substantially more time than the Crimes Against Property Group and the Other Crimes Group. The Property Crimes group serves more time than the Other Crimes Group. |
| PRIOR FELONY<br>CONVICTIONS | The Not MAP group is more likely to have two or more Prior Convictions than the other comparison groups.    | These individuals with Three or More Prior Convictions serve more time than any other group. The other groups do not differ substantially.   |

I. UNDERSTANDING THE CONCEPT OF STATISTICAL CONTROL

In the analysis that follows a statistical technique, multiple regression analysis, will be used to adjust for pre-existing differences amongst the various comparison groups. The idea of "adjusting" for pre-existing differences is crucial to an understanding of the discussion that follows. The example presented here should provide the lay reader with an idea of what is involved in statistically adjusting for initial differences without going into a full blown discussion of multiple regression. In fact the example presented here does not involve multiple regression but involves a statistical procedure known as standardization.

In Exhibit 1 (STEP 1), we have presented data on TIMESERVED controlling for two variables, MAP STATUS and TYPE OF ADMISSION. Looking at the "TOTALS" column, the means (TIMESERVED) (X) by MAP Graduates is 20.97 months while the means (TIMESERVED) (X) by the Not MAP Group is 23.72 months. On the average the MAP Graduates served  $(23.72 - 20.97 = 2.75)$  fewer months than the Not MAP group. Part of this 2.75 month difference is due to the initial make-up or composition of the groups. Exhibit 1 indicates that 41.5% of the MAP Graduates were Probation Violators, while 30.6% of the Not MAP Group were Probation Violators. In Addition, while only 10.1% of the MAP Graduates were classified as "Other Violators", 18.7% of the Not MAP Group were so classified. Probation Violators tend to serve less time than Not Violators, who in turn serve less time than Other Violators.

Since the MAP Graduate and Not MAP Groups have different percentages of Probation Violators and Other Violators, part of the 2.75 month difference between these two groups may be due to this different make-up. One way to take these initial differences into account is to calculate what the mean of a group would be if it had the same make-up or composition as the other group. In this example we adjust the mean TIMESERVED for the Not MAP Group by applying the composition or make-up from the MAP Graduate Group.

EXHIBIT 1: AN EXAMPLE OF A STATISTICAL ADJUSTMENT FOR  
 PRE-EXISTING DIFFERENCES BETWEEN GROUPS:  
 Mean TIMESERVED by TYPE OF ADMISSION and  
 MAP STATUS

STEP 1: The Initial Relationship

|                  | Not a Violator    | Probation Violator | Other Violator    | Totals            |
|------------------|-------------------|--------------------|-------------------|-------------------|
| MAP<br>Graduates | $\bar{X} = 22.27$ | $\bar{X} = 17.31$  | $\bar{X} = 29.78$ | $\bar{X} = 20.97$ |
|                  | N = 273           | N = 57             | N = 57            | N = 564           |
|                  | % = 48.4          | % = 41.5           | % = 10.1          | % = 100           |
| NOT<br>MAP       | $\bar{X} = 23.7$  | $\bar{X} = 15.7$   | $\bar{X} = 36.93$ | $\bar{X} = 23.72$ |
|                  | N = 68            | N = 41             | N = 25            | N = 134           |
|                  | % = 50.7          | % = 30.6           | % = 18.7          | % = 100           |

STEP 2: The Adjustment

|                | Means for<br>NOT MAP Group | % MAKEUP from<br>MAP Graduates | Col. 1X<br>Col. 2 |
|----------------|----------------------------|--------------------------------|-------------------|
| NOT A VIOLATOR | 23.7                       | 48.4                           | 1147              |
| PROB VIOLATOR  | 15.7                       | 41.5                           | 652               |
| OTHER VIOLATOR | 36.93                      | 10.1                           | 373               |
| TOTALS         |                            | 100.0                          | 2172              |

ADJUSTED MEAN for NOT MAP Group =  $\frac{2172}{100} = 21.72$

The adjusted mean is calculated as specified in Step 2 of Exhibit 1. The means for the Not MAP Group (Col. 1, Step 2) are multiplied by the composition or percentage make-up of the MAP Graduates (Col. 2, Step 2), yielding Col. 3 or the "Adjusted Totals". Column 3 is then summed and divided by 100(%) to yield an adjusted mean for the Not MAP Group. The resultant figure 21.72 is the adjusted mean for the Not MAP Group. The adjusted means answers the hypothetical question, "What would the mean TIME SERVED for the Not MAP Group be if it was made up of the same kinds of people as the MAP Graduate Group?" The difference between the mean (TIMESERVED) for the MAP Graduate Group and the adjusted mean (TIMESERVED) for the Not MAP Group ( $21.72 - 20.97 = .75$  months) is a full two months less than the initial difference of 2.75. It can be seen from this exercise that the initial difference in TIMESERVED is more attributable to differences in the kinds of people in the groups than to the groups themselves.

The multiple regression procedure to be used later will make a large number of statistical adjustments simultaneously. The multiple regression procedure has exactly the same purpose as the standardization example we have just completed. It attempts to statistically adjust for initial differences so that statement regarding the impact of the treatment variable (in this case participation in MAP) can be made. Without such statistical controls, differences between the various comparison groups are ambiguous and equivocal. Now with the idea of statistical control in mind we will first look at the initial relationship between MAP STATUS and TIMESERVED. We will look at the two variable relationships both by comparing means across groups and by using the multiple regression technique to accomplish the same end. We will then introduce the Paroling Criteria variable into a multiple regression analysis along with the MAP STATUS variable in order to answer the question "What is the impact of MAP STATUS on TIMESERVED independent of the effect of the Paroling Criteria (SENTENCE LENGTH, PRIOR FELONY, CONVICTIONS, TYPE OF ADMISSION AND TYPE OF OFFENSE)?"



J. THE BIVARIATE RELATIONSHIP BETWEEN MAP STATUS AND TIMESERVED

Table 14 on the following page presents information on the relationship between MAP STATUS and TIMESERVED. On the average the Cancelled group serves the most time of all four groups (25.2 months); the Not MAP group follows with an average of 23.7 months; the MAP GRADUATE group follows with an average TIMESERVED of 21.0 months; and the No Contract group has the lowest average TIMESERVED (20.7 months). MAP STATUS and TIMESERVED are both related to crucial variables involved in the parole decision.

Another way of examining the bivariate relationship between MAP STATUS and TIMESERVED allows us the opportunity to introduce the multiple regression procedure in an elementary way. This will assist the reader in understanding the more complex applications of the procedure utilized later in the report.

Table 15 presents the regression results for the case where TIMESERVED is treated as the dependent variable and MAP STATUS is treated as the single independent variable. (The specific procedure utilized has been called Multiple Classification Analysis and Dummy Variable Regression Analysis in the statistical literature.)

As we know from the earlier discussion there are four MAP STATUS groups (Not MAP, No Contract, Cancelled, and MAP Graduates). In the regression procedure, the analyst must choose one group to serve as a baseline group. We have selected the Not MAP group for this purpose. The mean for this group shows up in the regression analysis as the "constant." The regression coefficients for the other groups that appear in Table 15 are deviations, in months, from the baseline group. Hence, the MAP Graduates have a mean TIMESERVED of 23.7 (baseline = Not MAP mean) - 2.75 (the MAP Graduate coefficient) = 20.97 (which is equal to the mean for the MAP Graduate group in Table 14, i.e., 20.97 rounds to 21.0) The regression coefficient for a group then is interpreted as the difference between the TIMESERVED for that group and the mean TIMESERVED for the baseline group. The regression coefficient is often interpreted as the "effect" of being in a particular group. This is how the term will be used here. The effect of being a MAP Graduate is to serve, on the average, 2.75 fewer months than a Not MAP person.

Table 14: TIMESERVED Information by MAP Status

|                    | Not MAP | No Contract | Cancelled | MAP Graduate | Total |
|--------------------|---------|-------------|-----------|--------------|-------|
| Number in Group    | 134     | 202         | 100       | 564          | 1000  |
| Mean TIMESERVED    | 23.7    | 20.7        | 25.2      | 21.0         | 21.7  |
| Minimum for Group  | 4.6     | 3.4         | 4.9       | 5.8          | 3.4   |
| Maximum for Group  | 113.3   | 69.7        | 101.4     | 84.2         | 113.3 |
| Standard Deviation | 18.0    | 12.18       | 14.43     | 113.3        | 12.98 |

Table 15: An Example Showing the Use and Interpretation of Regression Coefficients: TIMESERVED as a Function of MAP Status

| Name          | Regression Coefficient |
|---------------|------------------------|
| Constant      | 23.72                  |
| No Contract   | -3.02                  |
| Cancelled     | 1.44                   |
| MAP Graduates | -2.75                  |

1. Mean of Not MAP = 23.72 = Constant
2. Mean of No Contract = 23.72 - 3.02 = 20.7
3. Mean of Cancelled = 23.72 + 1.44 = 25.16
4. Mean of MAP Graduates = 23.72 - 2.75 = 20.97

Note in steps 1-4 the regression procedure is used to generate the means discussed in Table 14.

Although the meaning of the regression coefficients will remain the same as we move to more complex examples, the meaning of the constant will change and it will not be possible to generate the group means in the way we have in this example. The analysis that follows seeks to answer the question, "Does the MAP Graduate group maintain its TIMESERVED advantage vis-a-vis the Not MAP and Cancelled groups once we have statistically controlled for these other variables (i.e., SENTENCE LENGTH, TYPE OF ADMISSION, TYPE OF OFFENSE and PRIOR FELONY CONVICTIONS?) The analysis will also address the issue of whether lack of difference between the No Contract and the MAP Graduate group holds.

K. REGRESSION ANALYSES OF TIMESERVED

Table 16 presents the multiple regression analysis results with TIMESERVED as the dependent variable and SENTENCE LENGTH, PRIOR FELONY CONVICTIONS, TYPE OF ADMISSION, TYPE OF OFFENSE and MAP STATUS as independent variables. The correlation matrix and variances used to generate this analysis is presented in Appendix B. The interpretation of the results follows, the discussion is ordered by independent variable.

Table 16: Regression Analysis of TIMESERVED

|                          | Regression Coefficient | Significance Level |
|--------------------------|------------------------|--------------------|
| Constant                 | 6.63                   | .000               |
| Sentence Length          | .218                   | .000               |
| Prior Felony Convictions | .728                   | .006               |
| Probation Violator       | -1.64                  | .004               |
| Parole Violator          | 6.10                   | .000               |
| Person Offender          | 5.49                   | .000               |
| Property Offender        | 1.44                   | .062               |
| No Contract              | 2.21                   | .014               |
| Cancelled                | 5.83                   | .000               |
| MAP Graduates            | 1.81                   | .019               |

$R^2 = .630$  for total equation.

1. THE IMPACT OF SENTENCE LENGTH

The regression coefficient for SENTENCE LENGTH is .218, This means that on the average individuals serve an additional (.218 x 30) 6.54 days for each month of their sentence. (This does not mean that individuals serve 21% of their sentences.) Of all the variables examined, SENTENCE LENGTH is the single variable most closely related to TIMESERVED. (This statement is based upon comparisons of the standardized regression coefficients, which are not presented here.)

2. THE IMPACT OF PRIOR FELONY CONVICTION

The average impact on TIMESERVED of each Felony Conviction, up to three, is (.728 x 30) 21.8 days. The reader may be surprised by the small size of the

regression coefficient, i.e., 21.8 extra days does not seem like a substantial amount of extra TIMESERVED for each PRIOR FELONY CONVICTION. All of these regression coefficients represent net effects. It is probably the case of PRIOR FELONY CONVICTIONS indirectly impact TIMESERVED through its effect on SENTENCE LENGTH. Although such issues are interesting and can be examined rather easily, they would detract from the essential thrust of this report, which is to examine the impact of the MAP project on TIMESERVED. Therefore, we continue the discussion of net effects as opposed to total effects.

3. THE IMPACT OF TYPE OF ADMISSION

The baseline group for the TYPE OF ADMISSION variable is the Not a Violator group. The Probation Violators on the average served 1.64 fewer months than the baseline group and the Other Violator group (parole and mandatory release violators) served 6.10 months more than the baseline group.

4. THE IMPACT OF TYPE OF OFFENSE

The baseline group for the TYPE OF OFFENSE variable is the Other Crimes category (i.e., drug offenses, prostitution, etc.). On the average Property Offenders serve 1.44 months more than the baseline group and Person Offenders serve 5.49 months more than the baseline group.

5. SUMMARY OF PAROLING CRITERIA VARIABLES

As we have seen in the regression results discussed so far, the Paroling variables operate much in the way one would expect them to operate. Person offenders, recidivists, Parole Violators and individuals with longer sentences all serve more time. These variables explain approximately 62% of the variance in the TIMESERVED variable, which in terms of usual social science levels of prediction is quite good. Most of that variation is attributable to the SENTENCE LENGTH variable, which when entered into a regression equation by itself accounts for 57% of the variance in TIMESERVED.

6. THE IMPACT OF MAP STATUS

The baseline group for the MAP Status variable is the Not MAP group, as was the case in the example provided earlier (Table 15). As seen in Table 16 all of the other MAP Status groups served more time on the average than the Not MAP comparison group. The regression coefficient for the MAP Graduate group means that after controlling for the Parole Criteria variables, i.e., adjusting for initial differences, the MAP Graduate group spends more time institutionalized than the Not MAP group. The No Contract groups spends almost the same amount of time as the MAP Graduate group and the Cancelled group spends about four months more than the MAP Graduate group.

An example using the regression equation for two hypothetical inmates, X and Y, will indicate in a concrete case what these results mean. Let us assume that X and Y are identical except that X negotiates and completes a MAP contract (i.e. he is a MAP Graduate) and Y does not participate in the MAP program. Let us further assume that both X and Y are armed robbers (i.e. TYPE OF OFFENSE = Offense Against Person), have five year sentences (SENTENCE LENGTH = 60 months), are parole violators (TYPE OF ADMISSION = Other Violator) and have one prior felony conviction (PRIOR FELONY CONVICTION = One Conviction). Using the regression equation from Table 16 we can estimate how much time X and Y are likely to serve.

Estimated TIMESERVED FOR PERSON X =

6.63 (the constant  
+12.68 Months (60 month sentences x .218)  
+ .728 for One Prior Conviction  
6.10 months for being a Parole Violator  
+5.49 months for being a Person Offender  
+1.81 months for being a MAP Graduate =  
33.34 Months

Estimated TIMESERVED FOR PERSON Y =

6.63 months (constant added to everyone)  
+12.68 months (60 month sentence x .218)  
+.728 months (for One Prior Conviction)  
+6.10 months (for being a Parole Violator)  
+5.49 months (for being a Person Offender)  
+0 months (for being a Not MAP group member)  
31.53 months

Our best estimates of how much time X and Y will serve indicate that X (the MAP Graduate) will serve 1.8 months more than Y (the Not MAP individual). (The reader should realize that these estimates are based upon averages over large numbers of individuals, we would expect real life cases to vary from our estimates i.e. if we had a real life individual exactly like person Y we should not be surprised to find out that he actually served 30 months or 33 months.

The reader may be asking "How can it be that the MAP Graduates start out with a smaller average TIMESERVED than the Not MAP group but the regression analysis suggests that graduating from MAP costs an individual in terms of TIMESERVED?" Some data, presented in Table 17 may supply the reader with an intuitive feeling for how we can arrive at such a finding. Table 17 shows the mean TIMESERVED for certain combinations TYPE OF ADMISSION,

PRIOR CONVICTIONS and TYPE OF OFFENSE. There are sixteen comparisons to be made of individuals who are alike on these three variables. Of the sixteen comparisons MAP Graduate serve more time than the Not MAP group in nine of the comparisons; they serve less time in five of the comparisons; and two of the comparisons cannot be made because there are no individuals in these subcategories who are Not MAP individuals. Once we equate the MAP Graduates and the Not MAP group on these three variables, the Not MAP group shows an advantage over the MAP Graduates in the amount of TIMESERVED. The regression results just examined not only controls for these three variables, but it also controls for SENTENCE LENGTH

7. ADDITIONAL ANALYSES

Several additional analyses were performed, and are briefly summarized. As noted earlier, five individuals in the Not MAP group had extremely long sentences relative to the individuals in the other groups. A separate regression analysis was run with these five individuals dropped from the analysis. The impact of this operation on the regression coefficients can be seen by comparing columns one and two of Table 18. The most important change occurs in the MAP Graduate coefficient. That coefficient now indicates a difference between the MAP Graduate group and the Not MAP group of .75 months. This difference is not big enough to be statistically different from zero. This analysis would lead us to argue that there is no difference between the MAP Graduates and Not MAP group in terms of TIMESERVED.

Columns three and four of Table 18 show the coefficients for the MAP STATUS groups when 1975 and 1976 release groups are run separately. The differences suggest that the advantage of the Not MAP group has increased over time. Column five presents the 1976 releases results with the five individuals who had sentences of over 180 months dropped from the analysis (All five were released in 1976). As before, dropping these five cases from the analysis drops the MAP Graduate coefficient down to near zero. Hence we must conclude that there is no difference between the MAP Graduate and the Not MAP groups.

TABLE 17: Comparing Conditional Means (months) MAP Graduate Group vs. Not MAP Group for Various Categories of TYPE OF ADMISSION, TYPE OF OFFENSE and PRIOR FELONY CONVICTIONS.

|                     |              | <u>Not Violators</u> |           |            |                |       |
|---------------------|--------------|----------------------|-----------|------------|----------------|-------|
|                     |              | Zero priors          | One Prior | Two Priors | Three & Priors | Total |
| Person<br>Offense   | MAP Graduate | 27.04                | 24.67     | 26.44      | 42.9           | 27.95 |
|                     | Not MAP      | 30.15                | 33.84     | 30.00      | 58.76          | 36.18 |
|                     | Difference   | -                    | -         | -          | -              | -     |
| Property<br>Offense | MAP Graduate | 18.07                | 20.91     | 18.39      | 25.69          | 19.58 |
|                     | Not MAP      | 18.74                | 15.26     | 16.57      | 14.77          | 17.03 |
|                     | Difference   | -                    | +         | +          | +              | +     |

|                   |               | <u>Probation Violators</u> |           |            |                |       |
|-------------------|---------------|----------------------------|-----------|------------|----------------|-------|
|                   |               | Zero priors                | One Prior | Two Priors | Three & Priors | Total |
| Person<br>Offense | MAP Graduates | 17.09                      | 24.39     | 25.95      | 27.07          | 21.32 |
|                   | Not MAP       | *                          | 15.33     | *          | 25.10          | 17.75 |
|                   | Difference    | N/A                        | +         | N/A        | +              | +     |

|                     |               |       |       |       |       |       |
|---------------------|---------------|-------|-------|-------|-------|-------|
| Property<br>Offense | MAP Graduates | 17.07 | 16.29 | 17.34 | 21.12 | 17.14 |
|                     | Not MAP       | 15.31 | 15.72 | 16.06 | 16.50 | 15.70 |
|                     | Difference    | +     | +     | +     | +     | +     |

\* "-" indicates that MAP Graduates serve less time than the Not MAP group.

\*\* "+" indicates that MAP Graduates serve more time than the Not MAP group.

\*\*\* indicates no cases in that cell



Table 18: Impact on the MAP Status Regression Coefficients of Various Alternative Methodological Strategies

|              | (1)<br>Coefficients from<br>Table 16 | (2)<br>Coefficients after deletion<br>of five "outliers" |
|--------------|--------------------------------------|--|
| No Contract  | 2.21                                 | 1.68   |
| Cancelled    | 5.83                                 | 4.78   |
| MAP Graduate | 1.81                                 | .76  |

|              | (3)<br>1975 Releasees | (4)<br>1976 Releasees | (5)<br>1976 Releasees after<br>deletion of 5 outliers |
|--------------|-----------------------|-----------------------|---|
| No Contract  | .788                  | 3.26                  | 2.28  |
| Cancelled    | 2.74                  | 6.95                  | 5.93  |
| MAP Graduate | 1.29                  | 2.07                  | .268  |

IV. SUMMARY OF RESULTS

The MAP Graduates, at best, serve about the same amount of time as their Not MAP counterparts. At worst it may cost an individual extra institutional time to participate in the MAP project. Although the experience in this report with the five outliers (with very long sentences) testifies to the sensitivity of the regression procedures, none of the analyses performed suggested that MAP Graduates do better than the Not MAP group. It is clear that the Cancelled group fares worst of all groups in terms of TIMESERVED. There does appear to be some punishment for attempting and failing the MAP program.

Because the research design for evaluating the MAP project did not incorporate the random assignment of individuals to treatment and control groups, it was necessary to adjust for differences between the MAP Status comparison group. When this adjustment is done, there is no evidence to support the contention that participation in the MAP program reduces the amount of Timeserved.

Appendix A: Classification of TYPE OF OFFENSE

| DOC Code | Classification          | Offense   |
|----------|-------------------------|---|
| 001      |                         | Murder, first degree                              |
| 002      |                         | Murder, second degree                             |
| 003      |                         | Murder, third degree                              |
| 010      |                         | Manslaughter, abortion (death of mother)          |
| 019      |                         | Negligent homicide                                |
| 100      | CRIMES AGAINST PERSON   | Robbery (unarmed)                                 |
| 101      |                         | Robbery (armed)                                   |
| 200      |                         | Assault battery                                   |
| 201      |                         | Mayhem  |
| 202      |                         | Aggravated assault, battery                       |
| 203      |                         | Injury by conduct regardless of life              |
| 204      |                         | Injury by negligent use of weapon                 |
| 301      |                         | Burglary (armed)                                  |
| 302      |                         | Burglary (unarmed)                                |
| 303      |                         | Entry into locked vehicle                         |
| 400      |                         | Theft (except auto)                               |
| 409      |                         | Receiving stolen property                         |
| 430      | CRIMES AGAINST PROPERTY | Auto theft  |
| 460      |                         | Fraud   |
| 461      |                         | Embezzlement                                      |
| 462      |                         | Transfer of encumbered property                   |
| 500      |                         | Forgery   |
| 501      |                         | Worthless checks, issuance of                     |
| 600      |                         | Rape  |
| 601      |                         | Attempted rape                                    |
| 609      | CRIMES AGAINST PERSON   | Statutory rape (Carnal knowledge and abuse)       |
| 631      |                         | Sexual intercourse without consent                |
| 632      |                         | Incest  |
| 633      |                         | Indecent behavior with child                      |
| 634      |                         | Adultery  |
| 635      |                         | Sexual perversion (sodomy)                        |
| 636      |                         | Lewd and lascivious behavior                      |
| 638      |                         | Prostitution, pandering, commercialized vice      |
| 639      |                         | Obscene matter                                    |
| 700      | OTHER CRIMES            | Narcotic law violations (drugs)                   |
| 750      |                         | Weapons, concealed or reckless use of, explosives |
| 780      |                         | Escape  |
| 800      |                         | Other Offenses (not classified elsewhere)         |
| 801      |                         | Attempt (except rape)                             |
| 802      |                         | Possession of burglarious tools                   |
| 810      |                         | Abortion  |
| 815      | PROPERTY CRIMES         | Arson   |
| 820      |                         | Bigamy  |
| 825      | OTHER CRIMES            | Conspiracy solicitation, bribery                  |
| 830      |                         | Extortion (threats)                               |
| 835      |                         | Gambling  |
| 840      | PERSON CRIMES           | Kidnapping, abduction                             |
| 850      |                         | Malicious destruction of property                 |
| 855      |                         | Abandonment, non-support                          |
| 860      |                         | Perjury   |
| 870      | OTHER CRIMES            | Contributing to delinquency of minor (enticing)   |
| 900      |                         | Juvenile delinquency                              |
| 910      |                         | Prostitution (female)                             |
| 920      |                         | Disorderly conduct, vagrancy, drunkenness         |

Appendix B: Correlation Matrix of Variables Used for the Regression Analysis  
of TIMESERVED (Standard Deviations in Diagonal Cells)

|                             | PRIOR FELONY<br>CONVICTIONS | SENTENCE<br>LENGTH | TIME<br>SERVED | Probation<br>Violator | Other<br>Violator | Person<br>Offense | Property<br>Offense | No<br>Contract | Cancelled | MAP<br>Graduates |
|-----------------------------|-----------------------------|--------------------|----------------|-----------------------|-------------------|-------------------|---------------------|----------------|-----------|------------------|
| Prior Felony<br>Convictions | .980                        |                    |                |                       |                   |                   |                     |                |           |                  |
| SENTENCE<br>LENGTH          | .102                        | 39.873             |                |                       |                   |                   |                     |                |           |                  |
| TIME<br>SERVED              | .089                        | .754               | 12.976         |                       |                   |                   |                     |                |           |                  |
| Probation<br>Violator       | .058                        | -.188              | -.252          | .489                  |                   |                   |                     |                |           |                  |
| Other Violator              | -.136                       | .197               | .302           | -.306                 | .331              |                   |                     |                |           |                  |
| Person Offense              | -.032                       | .307               | .356           | -.228                 | -.003             | .434              |                     |                |           |                  |
| Property<br>Offense         | .075                        | -.188              | -.204          | .270                  | .052              | -.729             | .487                |                |           |                  |
| No Contract                 | -.033                       | -.074              | -.039          | -.025                 | .006              | .025              | -.020               | .402           |           |                  |
| Cancelled                   | -.033                       | -.010              | .089           | .044                  | .045              | -.039             | .053                | -.168          | .300      |                  |
| MAP<br>Graduates            | -.005                       | -.036              | -.064          | .044                  | -.082             | -.021             | .005                | -.572          | -.379     | .496             |
| Mean                        | .728                        | 46.53              | 21.7           | .396                  | .125              | .251              | .613                | .202           | .100      | .564             |



State of Wisconsin \ DEPARTMENT OF HEALTH AND SOCIAL SERVICES

DIVISION OF CORRECTIONS

1 WEST WILSON STREET

P.O. BOX 669

MADISON, WISCONSIN 53701

December 21, 1977

Mr. Michael Moskoff, Chief  
Program Evaluation Section  
Wisconsin Council on Criminal Justice  
122 West Washington Avenue  
Madison, Wisconsin 53703

Dear Mr. Moskoff:

The purpose of the report received on December 19, 1977 was to test whether MAP releases (MAP graduates) do better than the comparison groups with respect to the length of stay, that is, whether MAP graduates serve a shorter length of stay than the comparison groups. For this assessment some variables, namely, prior convictions, offense, type of admission and length of sentence were controlled for. This was specifically demonstrated in the adjustment procedures utilized with your statistical analysis. Stephen M. Puckett and Paul Kusuda reviewed the draft report.

The second-year funding approval describes the measurement technique for the objective of reducing length of time served. This was to be accomplished by comparing MAP with other non-experimental groups as you have done and in addition by utilizing 1973 adult releases as a baseline average or median.

The latter of these was not accomplished in your report because needed data were not available. Also, the biennial budget has shown an objective to reduce the length of time served by two months for MAP participants. Your report demonstrates through the bivariate relationships (MAP status versus time served) that this was accomplished with the Not-MAP and Cancelled Contract Releases but that little difference existed between MAP and No Contract Releases. Your attribution of this difference is a result of the four variables identified above.

Several comments are made below based on the review of your report.

1. Mr. Puckett has informed me that the statistical methods used in the report is technically correct and free of major errors. Interpretation problems are found throughout the report principally due to lack of headings and labels on some tables. In addition the selection of the Not-MAP group to be the constant is rather unclear since this group, in its own right, may be exclusive of normal population parameters, even when adjusted to be more equal with the comparison groups.

Appendix C: DOC Response (cont.)

Mr. Michael Moskoff

December 21, 1977

2. As you are well aware, MAP is non-static and is continuously changing to meet the needs of the Division of Corrections and the populations it serves. The technical contrast between pure and applied research is not clear in the rationalization of the report. That is, the attempt to push MAP as an experimental approach is not correct. The specified adjustments do not necessarily restructure the population parameters to make each MAP status group equal and may in fact distort information of crucial importance. Consequently, the use of multiple regression may be an inappropriate statistical method.

One major property of MAP has been the voluntary participation by resident with MAP. No resident is currently excluded when major eligibility requirements are met. That is unlike many other innovative programs. The kinds of people trying to get in MAP and those not desiring MAP is in itself a self selection; by chance, there probably would be major differences between the two types of groups. You have demonstrated this. To say they are not different would then be misleading. Under the design for applied research though, the desire to make all things equal except the major variable MAP status and attribute this to be the principal reason for reduction in time served distorts the intent of the program.

Further, the report concentrates on the specific paraling variables as essentials for influencing the time served factor. In addition to these (and which are not identified in the report) certain institutional variables may affect persons on MAP but not others. Specifically, some of these variables are program completions, conduct reports, and length of program participation. Each of these variables carries a significant impact in the resident's negotiating, receiving, and actually completing a contract. These variables may not play a significant role with other comparison groups because their releases are not contingent on program completion. As demonstrated previously, nearly 90 percent of those residents in MAP have a program element in their contracts (see Offenders Admitted to the Mutual Agreement Program, July 1977). Adjustments are not made for this.

3. An oscillation (rotation) approach is preferred over the existing report. The variations of the values of each variable considered changes with time. In addition to those variables identified above, two others play a significant role in any analysis of MAP. These are the effects of eligibility and the amount of time served prior to receipt of a contract.

For adequate comparison results using multiple regression with adjustments, consideration should be given to the period of time MAP graduates were incarcerated prior to receiving a contract. Consequently, the report should exclude MAP graduates having spent a portion of time incarcerated without a contract. MAP graduates for the comparisons should be only those receiving contracts shortly after their admission.

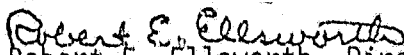
This is a desired approach and possibly an alternative to the current report. A study of this nature will be completed after the 1977 calendar year data about admissions have been assembled.

Aside from the above mentioned concerns, a couple points should be considered in your review. Part I of your report indicates the "start-up phase for the project was completed by March 1975." The final phase of negotiating contracts was completed in February 1977 when we began negotiations in the Wisconsin Correctional Camp System.

Also, Part I emphasizes the fact that "None of the reports previously released have dealt with...the time served by correctional inmates." Attached is a Practical Outcome Evaluation that dealt with this.

While many of the comments made here require additional elaboration, I hope it will suffice in giving some clarity to interpreting the time served report.

Sincerely yours,

  
Robert E. Ellsworth, Director  
Bureau of Institutions

REE:gw

- c: Mr. Allyn R. Sielaff
- Mr. Russel Leik
- Mr. Paul H. Kusuda
- Mr. Perry C. Baker
- Mr. Stephen M. Puckett
- Mr. Charles M. Hill, Sr.
- Mr. Austin McClendon
- Mrs. Severa Austin
- Mr. Charles Susmilch





**END**