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CASE MANAGEMENT CORRECTIONS SERVICES PROJECT

Evaluation Report No. 3 -
Preliminary Outcome Assessment

Prepared By
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Impact Evaluation Unit
of the
Oregon Law Enforcement Council

Robert D. Houser
Administrator

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CENTRAL
FILE

36503

Impact Evaluation Unit staff with responsibility for the production of this report was Diana Gray, Researcher.

Dr. Clinton Goff is the Impact Evaluation Unit Coordinator.

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. Duane Brown, Systems Analyst
Nancy Belcher, Researcher
Jean Hill, Researcher
Maria McSwan, Researcher
Judy Root, Researcher
Carol White, Researcher

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Summary of Findings

1. One hundred and forty-seven clients receiving supervision from Case Management Corrections Services Project for an average of nine months of service were compared with 46 juvenile court clients receiving supervision for an average of three months of service.
2. Clients were to have been systematically assigned from a random start to their respective study groups, but problems arose in the implementation of this procedure. Many clients were assigned prior to the court disposition on their entry offenses, and thus their study group assignment was known at the time of their court hearing.
3. The two study groups were checked for comparability on selected variables and were found to be non comparable on ethnic composition, age distribution and disposition on their entry referrals. CMCS clients had a greater proportion of minority clients, more older and more younger clients, and more clients with formal probation dispositions on their entry referrals.
4. Sex, ethnicity and age were all found to be unrelated to baseline offense seriousness scores. Therefore, offense behavior comparisons were made between the two study groups, despite their lack of comparability on the above variables.
5. Baseline offense scores compared to service period offense scores adjusted to a 12 month base show a significant reduction in target offenses for CMCS clients, but not control clients.
6. Comparisons of offenses committed during a 9 month service period base during active supervision adjusted to reveal that CMCS clients commit significantly fewer target, status and total offenses than control clients. There is no difference between the two groups in the commission of other offenses.
7. Control clients have significantly more counselor changes once assigned to a study group than do CMCS clients. Control clients are more likely to be committed to an institution for referrals occurring during active supervision while CMCS clients are more likely to continue under CMCS supervision for such referral.
8. Cost effectiveness comparisons, taking into account field service supervision costs and adjudication costs, show that it costs approximately \$28 more per client per year to keep a youth under Case Management supervision. This client will come back to court twice while a control client will return to court five times.

THE CASE MANAGEMENT CORRECTION SERVICES

THE PROGRAM

The Case Management Correction Services Project is a community based program which attempts to provide intensive probation supervision and counseling to juveniles between the ages of 10 and 17 who have committed target offenses, who live in high crime areas of Portland, and who have been adjudicated or informally determined eligible for community supervision by the Multnomah Juvenile Court. The project began implementation in January, 1973, and was officially awarded May 4, 1973. The program consists of four neighborhood offices located in three designated high crime areas of Portland (north, northeast with 2 offices, and southeast). There are four Case Management supervisors, one for each office, and a total of 17 case managers in the field, with two at court intake (CRAM). Through March, 1974, the Case Management Corrections Services Project had assumed service for 533 clients. The project attempts to provide intensive services to these clients by keeping caseloads at a minimum size (approximately twenty cases per counselor), contracting for professional treatment services for clients as needed, and by frequently contacting clients, parents and relevant agencies such as schools, employers and recreational programs in the community. These contacts are intended to occur in the client's own milieu rather than requiring the client and family to come to a central office to receive counseling services. Basically, this type of case supervision approach is believed to contrast with traditional juvenile court probation supervision (formal and informal) due to the location of the counselors in the community, the reduced caseload size, the additional funds available to purchase professional services, and the frequency and intensity of contact of counselors with clients.

During the operation of this project, which is part of the Multnomah County Juvenile Court, several changes have occurred within the court proper, altering to some extent its traditional service approach. A plan to decentralize the entire Multnomah County Human Services Department, including juvenile court probation services, began implementation about April, 1974. Some court counselors serving clients in southeast Portland were deployed to neighborhood offices. The Case Management southeast office was also involved in decentralization. Some case managers were transferred to two additional

1-Target crime is identified as burglary; and robbery, assault, homicide, rape and menacing with a weapon, as shown by the police arrest when such crimes do not involve relatives, friends or persons well known to the victim.

southeast offices such that case managers and court counselors served out of the same physical location.

Then in July, 1974, the Department of Human Services received sizeable budget cuts requiring that some court staff be terminated. The net result was an increase in the average caseload size for the remaining court counselors, creating an even greater disparity between the juvenile court program and the Case Management program with respect to client/counselor ratio.

Finally, the organizational placement of the juvenile court was changed from the Department of Human Services to Justice Services. The Juvenile Court and Case Management, by action of the Board of County Commissioners, were transferred October 10, 1974.

OUTCOME OBJECTIVES

Initial Outcome Objective

The primary objective of the project is to reduce the frequency with which offenders services by the Case Management Project commit target offenses. The evaluation design required that an acceptable criteria be established in order to determine whether or not such a reduction, indeed occurred. The original proposal proposed to reduce the number of repeat target offenses among clients served by two percent the first action year, by five percent at the end of the second action year, and by nine percent at the end of the third action year, compared to a control group of clients randomly selected from the same service areas as the project client group.

There are a number of problems with this type of objective in assessing program effectiveness. Most studies indicate that from age ten on, delinquency rises steeply to age sixteen. After age sixteen, delinquency has been seen to decline irrespective of intervention (Wolfgang, et.al., 1972, p. 233). To the extent, than, that the bulk of clients served by the project are under sixteen years of age, a decline in delinquency can be interpreted as something other than what would normally be expected. How much percentage change must occur to be statistically significant is not clear without prior knowledge of the number of clients to be served. It could be, that, given the number of clients being served, a two percent decline in delinquency the first year is the result of chance fluctuation. Likewise, even statistically significant changes cannot be attributed solely to the program and are subject to a variety of alternative explanations (Campbell & Stanley, 1966). To the extent that the percentages in the above objective were chosen arbitrarily, are

subject to chance, and could be explained by other factors,² the objective is meaningless in terms of assessing the effectiveness of this project.

Revised Objective

As an alternative means of assessing program effectiveness, an experimental design was developed, accepted, and was fully implemented about six months after the project itself was implemented. A case review and assignment process (CRAM) was established at the juvenile court to identify target offenders living in the target areas referred to the juvenile court. These clients were then to be systematically assigned to either Case Management or to regular court services with every sixth case going to the regular program beginning from a random start. This assignment procedure began in July, 1973. It was intended that the result would be two comparable groups of youths so that the relative effectiveness of the Case Management program could be measured against that of the regular juvenile court program. A new objective was established stating that: the long term objective is to reduce the number of repeat target offenses measured one year after the termination of the project among clients serviced by the program compared to a control group of clients served by the regular juvenile court probation services; such that the difference in the outcome for the two groups is greater than what could be explained by mere chance variation.

Intent of this Report

This preliminary report will confine itself to reporting on the above stated objective. Obviously, it is too early to report the one-year follow-up data, but control cases and experimental cases with similar length supervision periods will be compared to determine if any short-term, immediate effect can be detected for a selected sample of clients. Also, methodological problems which arose in the production of this report and the comparability of the control and project clients will be discussed.

²-Wilkins argues the need for appropriate comparisons stating, "H. Eysenck, 1952, made an extensive study of the literature reporting the outcome of psychotherapeutic treatments for mental patients. He concluded, as had P.G. Denker in 1937, that roughly two out of every three cases treated showed an improvement or cure. This may seem remarkably good. But he also showed that of those who were untreated, two out of every three recovered spontaneously.Evaluation of action should, if possible, be compared with outcome or inaction. Is it not possible that more careful activity might be better than intensive intervention in some kinds of cases?" (Wilkins, 1969, pp. 122-23).

STUDY DESIGN AND DATA COLLECTION

The Study Groups

As earlier mentioned, it was the intent of the evaluation design that eligible juveniles³ be assigned to either the control or the project group. Implicitly, it was also intended that these clients be eligible for community supervision in as much as those clients going to the juvenile correctional institutions (MacLaren or Hillcrest) would not be served by Case Management or by the juvenile court. In addition, if the charges against the individual were dropped or dismissed, or if the court declined jurisdiction on the case, the client would not be eligible for probation supervision by the court or CMCS. In fact, however, clients were defined as eligible for Case Management or regular court service prior to a court hearing for an entry offense, and prior to determination of eligibility for probation. This information is thought to have biased the decision the judges might otherwise have made in the absence of knowledge of such eligibility. For example, an eleven year old black youth in for his first burglary normally may have been returned home and the charges may have been dismissed, but due to the presence of a special intensive program which serves both clients and parents, and has black counselors, a disposition of formal probation to that project might have resulted. In contrast, a fifteen year old white youth with an extensive record might normally have been committed to MacLaren, but in view of the special project, might have been given a second chance and allowed to remain in the community on probation. Control clients, not being designated eligible for this special program (CMCS), did not have the same "chances" in the court room, and in fact, a disproportionate number of control clients were continued, dismissed, released, warned and closed, or committed to MacLaren instead of receiving probation service. The net result was that there were very few clients left for the control group. Over 50 percent of the control cases were lost for the above stated reasons. It was also feared that a definite bias and selection factor was operating such that Case Management may have been receiving older, more serious offenders and younger, less serious offenders than the control group.

Therefore, beginning May, 1974, the case assignment process was revised. Cases were not designated CMCS cases or control cases until post-adjudication, after they were determined eligible for community supervision. Theoretically, then, all clients shared an equal chance of commitment, probation, or dismissal in the court room. In addition, the ratio of control assignments to the

³-Eligibility criteria include referral to the Multnomah County Juvenile Court for alleged target offenses, residence in designated targeted high crime areas of Portland, and age between ten to seventeen inclusive.

experimental study group was increased in North and Southeast areas to every fourth client due to the high intake rate and resulting high caseloads in those areas, as well as for the need for more control clients; in the Northeast area, however, the ratio remained at one in six.

For this particular report, all control cases identified from July, 1973 to August, 1974 were used. This is a total of 46 clients. They are being compared against the first one hundred and forty-seven clients assigned to Case Management beginning in May, 1973 (when the project was officially awarded) through April of 1974. Although, as of March, 1974, over 500 clients have been served, this study confines itself to only about one-fourth of these clients due to a variety of data collection problems that surfaced. It has been necessary for purposes of data collection reliability and validity to recollect the offense data on all clients in all study groups up to August, 1974. Because of the time involved in the recollection of this data, only the first 150 clients could be completed in time for this report.

Data Collection Procedures and Problems

Offenses as reported in this study are defined as alleged law violations known to the juvenile court, irrespective of adjudication or substantiation.⁴ The source for these data is clients' case files kept by the juvenile court. Offenses were coded if they appeared as changes on Law Enforcement Custody Reports or Court Petitions. For entry target offenses only, in the absence of data from the two above mentioned sources, offenses were coded from Law Enforcement Crime Reports or other sources such as Court Intake Reports. To improve the reliability of the data and numerous coding problems, other file information (face sheets, case narratives, school reports, etc.) were excluded as data sources. The result is an underestimation of status offenses. However, since the thrust of this project is to reduce target offenses, it was felt that loss was worth the gain in coder reliability. Reliability using the new data collection techniques improved from 69.8 percent coder agreement in the last evaluation report to 90.0 percent.

Offenses are designated as baseline (defined as offenses occurring during the twelve months preceding the three weeks after the client is assigned to a counselor), transitional, (offenses which occur after the entry offense but before the end of baseline, and are

⁴-Literature exploring self-reported delinquency indicated that those offenses coming to the attention of authorities constitute only about one-tenth of the actual delinquent acts. The further into the system, the greater the attenuation of cases. Therefore, referrals are taken as a modest underestimate of the actual offending behavior of juveniles under scrutiny. (Erickson and Empey, 1963; Schwartz, 1945; Murphy, et.al., 1946).

included in baseline), and entry, (offenses which get the client into a study group). Offenses are also designated as having occurred while the case was open (under active supervision after the end of baseline), or closed (after service has been terminated after the end of baseline). A client may have more than one period of service and one period of closure during the Case Management Project.

All clients used in this report have their offenses updated to August, 1974 from case files. Any codeable offense which was in the files as of August, 1974, has been assigned to the client.

FINDINGS

Study Group Comparability

To assess the outcome of this project, this report will examine a series of questions regarding the two study groups and the outcome objective. The first question to be addressed is as follows:

"Are the study groups comparable across selected variables? Did the systematic selection procedure result in two groups with similar distributions on sex, age, ethnicity, school and employment status, offense behavior, and seriousness scores?"

Sex - There is no significant difference in the sex distribution of the two study groups examined in this assessment.

(Table 1 here)

Age - Although there is no significant difference in the mean age of clients in the two study groups (mean age is 15 for both groups),

(Table 2 here)

there is a significant difference when the overall spread of the ages of the clients is examined.

(Table 3 here)

Case Management clients can be seen to have a greater proportion than the control group of clients age 13 and younger, and age 18 and older. The control group, on the other hand, has a greater share of 16 year olds. The age reported here is the client's age at the time of this report and not at the time of his assignment to the study group. The older clients in Case Management can be accounted for by the fact that the project maintains clients for a longer period of time under supervision than controls. The possible explanation for the reason for this difference in age distribution is suggested on page four, in that a biasing was introduced when clients were assigned to study groups prior to the court hearings on their entry referral.

Ethnicity - There is a significant difference in the distribution of minority clients and white clients in the two study groups.

(Table 4 here)

The Case Management Corrections Service study group has significantly more minority clients than does the control study group. Again, a possible explanation of this different distribution is the differential decision making that occurred at the initial hearings on entry referrals for Case Management clients. The project is notable in that they have hired minority counselors to work with clients living in the northeast Portland target area. Knowledge of this fact could have influenced the judges to place more minority clients on formal probation rather than to commit or dismiss, as may have been the case with the potential control clients. A detailed breakdown of client ethnicity is offered in Table 5.

(Table 5 here)

School Status - Data on the school status of clients are unavail-

(Table 6 here)

able in about half the cases in each study group. This information was reported by the client's counselor at the time of intake and frequently the counselor was not aware of the client's status at the time the form was completed, or the form was never submitted to research staff. For this reason, the data are not necessarily representative of the entire sample being examined in this study. Very few clients are reported as not attending any school program. It could be that most of the clients on whom we have no data were not involved in school. However, there is no significant difference between the two study groups on school status and there is no reason to believe that the other 50 percent of the clients would change this distribution drastically.

Employment Status - As with school status, information regarding the client's employment status was reported by the counselor and is missing in over half the cases. However, the clients on whom there are data indicate that there is no significant difference in the employment status of clients in the two study groups at the time they entered the project.

(Table 7 here)

Offense Behavior - Data on client's baseline offense behavior one year prior to their entry into the project were collected. Project clients and control clients were compared on the basis

of the number of target offenses, status offenses,⁵ and other⁶ offenses they committed during their baseline period. As can be seen in Table 8, there are no significant differences in the mean

(Table 8 here)

number of each type of offenses committed in each study group. Some questions were raised regarding the appropriateness of including the entry offenses as part of the baseline offenses.⁷ When entry offenses only and transitional offenses only (Tables 9 and 10) are examined, there is no difference between the two groups.

⁵-Status offenses are those crimes that would not bring an adult to the attention of the authorities. They include curfew, truancy, runaway, incorrigibility, etc.

⁶-Other offenses are all offenses not classified as target or status.

⁷-Other studies of delinquency making service period to baseline period comparisons include all offenses prior to the beginning of service which includes the entry offense, as the following quotes illustrate:

"A second way of reviewing recidivism rates is to consider them on a collective and before-and-after basis. Such an analysis provides a means of determining the capacity of the two programs to control delinquency in a general sense; that is, to determine whether they affected any reduction in the overall volume of delinquency. All too often, there is a tendency to evaluate programs solely in absolute terms rather than relative terms; that is, to ask whether offenders assigned to them recidivated or not, without due regard to the possibility that such programs, even if their subjects did recidivate, may have been successful in effecting a reduction in overall delinquency rates."

"The findings which follow, illustrate the importance of conducting this kind of analysis. As will be seen in Table 12.5, the total number of offenses committed by all experimental subjects during the twelve-month period prior to assignment was 379. During the twelve-month period assignments, this figure declined significantly to only 102 offenses. This is a 73 percent reduction in the volume of delinquency committed by these experimental subjects, a sizable decrease indeed." (Empey and Lubeck, 1971, pp. 258-259).

"Figure 10-1 provides a summary statement of findings comparing the total number of arrests for each sample four years before, versus four years after intervention. Because the four samples were not equal in size, some method had to be found for standardizing the comparisons. This was done by treating the preintervention arrests for each sample as a base rate of 100 percent, and then comparing the postintervention arrests with that base." (Empey and Erickson, 1972, p. 207, emphasis, this author's.)

Offense Seriousness

Offenses were also scored as to their seriousness using a modification of Sellin and Wolfgang mean raw magnitude ratio scale scores for those offenses coded which paralleled offenses scored in Sellin and Wolfgang's study. Eleven offenses were not scoreable out of the 47 coded in this study. (See Appendix A for further information regarding the computation of the offense seriousness scores.) The two study groups were compared on the basis of their baseline offenses seriousness scores. There is no significant difference on the mean offense seriousness scores of 118.58 and 116.13 for the CMCS and control groups, respectively.

(Table 11 here)

When seriousness scores on baseline offenses were grouped into four categories and compared for spread between control and CMCS clients for all baseline offenses (Table 12), for entry offenses only (Table 13) and for transitional offenses only (Table 14) there were no significant differences between the two groups.

(Tables 12,13, & 14 here)

Sex and Seriousness

Although there was no significant difference in the sex composition of the two study groups, it was still of interest to determine if there were differences in the seriousness scores on baseline offenses by sex of the offender. With both study groups combined, an analysis of variance was computed between baseline offense seriousness scores and sex. There was no significant difference between offense seriousness and sex.

(Table 15 here)

Ethnicity and Seriousness

Because the two study groups were not found to be comparable on age and ethnicity, it was important to determine if these two characteristics were significantly related to offense behavior since this is the major outcome measure for this program. The relationship between offense seriousness and ethnicity was examined.

(Tables 16 & 17 here)

Both a chi square analysis and an analysis of variance revealed no differences between white and minority clients on their baseline seriousness scores.

Age and Seriousness

Findings with respect to age and baseline seriousness scores were similar to those of ethnicity. Age did not make a significant difference in a client's baseline seriousness score.

(Table 18 here)

A detailed breakdown of mean seriousness by study group for each age group is presented in Table 19.

(Table 19 here)

Conclusion

When compared on a series of relevant variables, the project study group and control study group differ with respect to the age distribution and ethnic distribution of their clients, but not with respect to their offense behavior, both in frequency and serious. Offense seriousness is not significantly related either to age or ethnicity, which lends support to proceeding to compare the two groups with respect to their offense behavior as a measure of program effectiveness.

Court Processing and Disposition of Clients

The second question to be asked is:

"Were those clients who survived the earlier assignment procedure which occurred prior to court hearings processed in a similar manner for entry and transition period offenses?"

Data on the disposition of referrals to courts were only available on baseline referrals identified as entry referrals or transition referrals. Dispositions were grouped as to whether or not the case had no formal hearing, the hearing resulted in no direct supervision by the court (charges dismissed, temporary custody awarded to Childrens Services Division, child returned to another court, child referred to another agency, formal reprimand, etc.), formal probation awarded, the child is committed to a correctional institution, or the child is continued under current court supervision with no change in his status. For entry referrals only, there is one instance of significant difference between the CMCS and control clients.

(Table 20 here)

CMCS clients are more likely to have received formal probation as a court disposition on their entry referral than control cases. This may have been the result of Case Managers going to court on their earlier cases prior to the revision of the study group assignment process. They may have requested formal probation more often for clients in order to assure their authority over the clients entering their program. For transition offenses, there were no significant differences found in the disposition of referrals for the two study groups.

(Table 21 here)

In addition, when specific types of offenses were examined for disposition by study group, no differences between the two study groups emerged for entry and transitional referral offenses.

Now that there has been a revision in the study group assignment process, it is expected that these significant differences in the awarding of formal probation for CMCS versus control clients will disappear in future data analysis.

Length of Service (Active Supervision) by Study Group

"Did the control and CMCS clients experience a similar length period of active supervision during the time period under examination?"

The answer to this question is that they definitely did not. CMCS clients on the average, experienced a three times longer active supervision period than did the control clients. CMCS

(Table 22 here)

clients had an average of nine and one half months of supervision while control clients had an average of three months. The year was divided into three month intervals and the relationship of offenses, controlling for (making uniform) the time under supervision was examined. These data indicate that after the first

(Table 23 here)

three months of supervision, there is an increase in the likelihood of offending. This likelihood remains fairly constant for the next nine months and then increases again at the end of one year. The number of offenses committed is a function of the time spent under supervision (the longer the time period, the greater the number of offenses). Therefore, in comparing the offense behavior of the control and CMCS clients during active supervision, the time period under consideration must be standardized to make the comparison possible. All offense scores were standardized to a nine month base using three month intervals, for computation for service period comparisons and 12 month basis for the baseline to service period comparisons.

Baseline to Service Period Offense Behavior Comparisons - Initial Outcome Objective

"Was the target offense behavior significantly reduced from the client's baseline behavior for each study group? What was the percent of reduction that occurred if any?"

(Table 24 here)

Table 24 gives the baseline to service period (using adjusted offense scores) for each study group. For Case Management clients, there was a 51 percent decrease in the number of target offenses committed, (well over the 2 percent goal), a 65 percent increase in status offenses, a 17 percent increase in other offenses, and a 13 percent decrease in total offenses committed. The decrease in target offenses for CMCS clients is statistically significant.

For control clients, there was also a decrease in target offenses of 23 percent, with an increase of 315 percent in status offenses. There was an 85 percent increase in other offenses with a 78 percent increase in total offenses. The decrease in target offenses for court clients is not statistically significant.

These findings are based on scores adjusted to a 12 month base derived from offenses that control clients commit during three months of supervision, and that CMCS clients commit during 9 months of supervision. They do not represent actual offense scores of clients supervised for a comparable 12 month service base. To attempt to make actual comparison of actual offenses scores, by service periods, the study groups were compared for offenses scores by intervals of 3 month periods under supervision. However, the small number of control clients with more than three months of service make these data unreliable. The greatest discrepancy between CMCS and controls seems to come during the second

(Table 25 here)

three month interval of service.

Comparison of offense behavior for CMCS versus control clients during active supervision.

The crucial question for this current report is, "Is there a significant difference in the offense behavior of Case Management clients compared to the control clients for equal periods of supervision?"

Using offense scores adjusted to a 9 month base, the answer to

(Table 26 here)

the question is that the Case Management clients commit significantly less target, status, and total offenses during nine months of active supervision than do the juvenile court clients. These preliminary data indicate, then, that the Case Management project is more successful in significantly reducing the target offense behavior and most other offense behavior of their clients than is the juvenile court program.

Clients were also compared as to their offense behavior during periods of closure, after having been under active supervision. The average length of closure was about comparable for the two groups (about 2 months each). During this time there was only one CMCS client referral to court. The data is presented in Table 27, but is based on such a small number that it must be interpreted with caution.

(Table 27 here)

Offense seriousness scores were compared for each study group, by time under active supervision. As can be seen, there is little difference between the two groups on this variable, but the numbers being compared are small and unstable. These findings may not be reliable.

(Tables 28 & 29 here)

Comparison of Referral disposition by study groups on offenses committed during active supervision

Control clients are significantly more likely to be committed to MacLaren/Hillcrest for their active supervision referrals to court, while CMCS clients are more likely to be continued under current status. When controlling for type of offense (target, status and other) this relationship holds for target and status offenses, but not for other offenses. However, the two groups have not suffered a statistically significant differential loss of clients due to commitment.

(Tables 30 & 31 here)

Differences in type of services during supervision by study group

"In what other ways were the two study group's clients dealt with differently during their period of active supervision?"

This question will be answered extensively in the next evaluation report which will detail the differences in the amount, quality, and type of services which clients in each study group received. However, for this report two variables were examined. The first was the number of out-of-home placements clients received. There was no significant difference between the two groups in out-of-home placements as shown in table 32. Second, the number of

(Table 32 here)

counselor changes a client experiences (or transfers) was examined. The groups were found to differ significantly on this item with the controls experiencing more transfers, an average of .565 in a three month interval or 2.26 per year compared to 1.33 for CMCS clients.

Tables 33 & 34 here)

Cost Effectiveness of the two programs

The costs of serving clients in the field was calculated for the two study groups. Cost for the Juvenile Court Field Service was calculated as follows:

20 counselors	\$322,953
4 supervisors	74,396
1 supervisor of counseling	14,480
11 clerical	92,247
1 director	12,698
	<u>\$516,774</u>

Total number of field cases (including transfers) = 2,556 with 2.26 transfers per client that is actually 784 clients served.
Cost per case for court field services = $\$516,774/784$
= \$659.15

The following costs were applied to Case Management:

Personnel - including clerical supervisor and director	\$335,409
3 local match positions	46,323
professional services	29,945
Total	<u>\$411,677</u>
Total number of cases served	390
Cost per case for Case Management	1,055

The effectiveness measure is based on the average number of times a year a client returns to court, and thus, incurs for the court adjudication costs. Adjudication costs were calculated as follows:

1 referee (preliminary hearing time subtracted)	\$ 17,714
1 steno-clerk II	9,494
2 clerk-typist I	15,774
1 special services supervisor	18,599
10 special services counselors	153,207
Total	<u>\$214,788</u>
Attorney fees	\$ 60,000
Miscellaneous	4,500
Total	<u>\$ 64,000</u>
Total number of hearings	2,294
Cost per hearing = $\$279,288/2,294$	
= \$121.74	

Case Management clients return to court an average of 2.02 times per year (see table 24, mean no. of total offenses), while court clients return to court an average of 5.04 times per year. The total cost of a Case Management client then is:

2.02 X \$121.74 = \$	245.91	Court costs
+	1,055.00	Field costs
\$	<u>1,300.91</u>	Total

The total costs of a court client are:

5.05 X \$121.91 or \$	613.57	Cost for court hearings
+	659.15	Cost for field services
	<u>\$1,272.72</u>	Total cost

The cost difference in the two programs is \$28.19 more per client per year to supervise clients under Case Management. These cost data do not take into account the added cost to society⁸ of the three additional offenses a court client commits or the cost to the state to keep a client in MacLaren (\$1,500 per month per client) where many repeat offenders ultimately go.

⁸-Average cost of a residential burglary in 1971 was \$293.43 based on data from J. Bradford Shiley, Burglary and Robbery, Portland, Oregon, Salem, Oregon, 1972.

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APPENDIX A

Offense seriousness scores were computed using Sellin and Wolfgang* mean raw magnitude ratio scale scores. All Sellin and Wolfgang offenses which could be included in the CMCS coding scheme were included. If, for example, several of the Sellin and Wolfgang offenses could be encompassed in the CMCS code (e.g. CMCS code 02 includes Sellin and Wolfgang offenses 77, 78, and 81), the geometric mean was computed for each offense for each Sellin and Wolfgang study group (police and Ogontz). The CMCS code 02, "unauthorized use of a motor vehicle" was scored as follows:

Mean Raw Magnitude Ratio Scale Scores

Sellin & Wolfgang Offense No.	Study Groups	
	Police	Ogontz
77	22.92	11.79
78	18.58	10.38
81	8.95	9.76

CMCS Code 02 was scored as 13.73.

Because the CMCS coding categories are less refined than the Sellin and Wolfgang offenses, the grouping of offenses results in loss of information and attenuation of any existing correlation between offense seriousness and other variables under consideration. However, the ratios between offense should not be seriously affected by the grouping. Using these seriousness scores increases information about the types of offense committed which is lost when we rely on the counting of frequency of offenses only. The seriousness scores are both a function of the number and the type of offenses committed. If the two study groups are found to differ significantly in the number of offenses committed in a given time period, the seriousness should be compared between the groups controlling for the number and type of offenses. In other words, for target offenses (type) do the CMCS clients commit less serious offenses (using say, three offenses as a comparison base) than do the control group clients?

Data for this report is limited, and a more refined analysis of seriousness of offenses can be done in the future. Baseline comparisons of seriousness are acceptable because there was no significant difference in the mean number of offenses between the two groups for a comparable time period (12 months).

*T. Sellin and M.E. Wolfgang, The Measurement of Delinquency, New York: Wiley and Sons, (1964). This study was chosen as a basis for seriousness scores because it is an established, replicated scale of offense seriousness, widely recognized in the field of criminology. See Appendices D. pages 381-386 and E-4, pages 391-392, for offense descriptions and scale scores.

TABLE 1

CLIENT'S SEX BY STUDY GROUP FOR CASES ASSIGNED BETWEEN
MAY 1973 TO AUGUST 1974

SEX	CMCS CLIENTS	CONTROL CLIENTS	TOTAL
Male	136 93.2%	42 91.3%	178
Females	10 6.8%	4 8.7%	14
TOTAL	146	46	192

χ^2 corrected = 0.00899 1 degree of freedom

N.S.

Phi. ϕ = .007

TABLE 2

ANALYSIS OF VARIANCE BETWEEN STUDY GROUPS FOR AGE

SOURCE OF VARIATION	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F
Between Groups	0.0781	1	0.0781	0.0266
Within Groups	544.1914	185	2.9416	
TOTAL	544.2695	186		

CMCS Mean Age = 15.46 N = 146 t = 0.1630
Control Mean Age = 15.41 N = 46 N.S.

TABLE 3

CLIENT'S AGE BY STUDY GROUP FOR CASES ASSIGNED BETWEEN
MAY 1973 TO AUGUST 1974

AGE	CMCS CLIENTS	CONTROL CLIENTS	TOTAL
13 and younger	27 19.1%	6 13.0%	33 17.6%
14	23 16.3%	7 15.2%	30 16.0%
15	26 18.4%	7 15.2%	33 17.6%
16	16 11.3%	17 37.0%	33 17.6%
17	21 14.9%	6 13.0%	27 14.4%
18 and older	28 19.9%	3 6.5%	31 16.6%
TOTAL	141	46	187

Data missing on 5 clients

$\chi^2 = 17.66$ 5 degrees of freedom level of significance $< .05$

TABLE 4

ETHNICITY OF CLIENTS BY STUDY GROUP

ETHNICITY	CMCS	CONTROL	TOTAL
Minority Status	57 39%	10 22%	67
White	89 61%	36 78%	125
TOTAL	146	46	192

x^2 corrected = 3.879

1 degree of freedom

significance < .05

Phi. ϕ = .14

TABLE 5

CLIENT'S ETHNICITY BY STUDY GROUP FOR CASES ASSIGNED
BETWEEN MAY 1973 TO AUGUST 1974

ETHNICITY	CMCS CLIENTS	CONTROL CLIENTS	TOTAL
Black	51 34.9%	10 21.7%	61
White	89 61%	36 78.3%	125
Native American	3 2.1%	0 -	3
Spanish American/ Chicano	1 0.7%	0 -	1
Asian American	1 0.7%	0 -	1
Other	1 0.7%	0 -	1
TOTAL	146	46	192

TABLE 8

BASELINE OFFENSES FOR CLIENTS ASSIGNED BETWEEN MAY 1973
AND AUGUST 1974 BY OFFENSE BY STUDY GROUP

OFFENSE	Mean no. of offenses per client		TOTAL
	CMCS	CONTROL	
Target	Mean 1.30 SD .842	1.48 1.049	1.34 F = 1.37 ns t = 1.17 ns
Status	Mean .40 SD .834	.46 0.657	.41 F = .19 ns t = .34 ns
Other	Mean .63 SD .947	.89 1.269	.70 F = 2.24 ns t = 1.50 ns
Total Offenses	Mean 2.33 SD 1.793	2.83 2.080	2.45 F = 2.49 ns t = 1.58 ns

No. of Cases

146

46

192

TABLE 9

MEAN NO. OF OFFENSES BY TYPE OF STUDY GROUP FOR ENTRY REFERRALS

OFFENSE TYPE	STUDY GROUP		F	t	LEVEL OF SIGNIFICANCE
	CMCS	CONTROL			
Target	Mean 1.15 SD 0.743	Mean 1.13 SD 0.582	.03	.16	NS
Status	Mean .09 SD .285	Mean .09 SD .285	.001	.03	NS
Other	Mean .19 SD .501	Mean .17 SD .437	.04	.20	NS
TOTAL	Mean 1.43 SD .951	Mean 1.39 SD .802	.06	.24	NS

No. of Clients

147

46

TABLE 10

MEAN NO. OF OFFENSES BY TYPE OF STUDY GROUP
FOR TRANSITION REFERRALS (OCCURRING AFTER ENTRY REFERRAL
BUT BEFORE END OF BASELINE)

OFFENSE TYPE	STUDY GROUP		F	t	LEVEL OF SIGNIFI- CANCE
	CMCS	CONTROL			
Target	Mean .102 SD .326	Mean .065 SD .442	.37	.61	NS
Status	Mean .075 SD .333	Mean .065 SD .250	.03	.18	NS
Other	Mean .116 SD .380	Mean .109 SD .315	.01	.11	NS
TOTAL	Mean .29 SD .664	Mean .23 SD .736	.21	.46	NS

No. of clients

147

46

TABLE 11

ANALYSIS OF VARIANCE BETWEEN STUDY GROUPS ON BASELINE
SERIOUSNESS SCORES

SOURCE OF VARIATION	SUM OF SQUARES	MEAN SQUARE	DEGREES OF FREEDOM	F
Between groups	207.75	207.75	1	0.111
Within groups	355,415.25	1870.61	190	
TOTAL	355,623.00		191	

CMCS Mean Score 118.576 N = 146 NS
Control Mean Score 116.134 N = 46

TABLE 12

BASELINE SERIOUSNESS SCORES BY STUDY GROUP

BASELINE SERIOUSNESS SCORES	CMCS	CONTROL	TOTAL
0-75.00	16%	26%	36
75.01-100.00	16%	15%	31
100.01-125.00	20%	15%	36
125.01+highest	48%	44%	90
TOTAL	147	46	193

$\chi^2 = 2.33$ $df = 3$ ns
Cramer's V = .11

TABLE 13

ENTRY REFERRALS OFFENSE SERIOUSNESS SCORES BY STUDY GROUP

ENTRY REFERRAL SERIOUSNESS SCORES	CMCS	CONTROL	TOTAL
0-75.00	73%	74%	141
75.01-100.00	3%	9%	9
100.01-125.00	13%	9%	23
125 + higher	11%	9%	20
TOTAL	147	46	193

$\chi^2 = 2.80$ d of f = 3 ns
Cramer's V = .12

TABLE 14

TRANSITIONAL REFERRALS OFFENSE SERIOUSNESS SCORES
BY STUDY GROUP

TRANSITION REFERRAL OFFENSE SERIOUSNESS SCORES	CMCS	CONTROL	TOTAL
0-75.00	95%	98%	185
75.01-100.00	1%	0	2
100.01-125.00	1%	0	2
125 + higher	2%	2%	4
TOTAL	147	46	193

$\chi^2 = 1.28$ d of f = 3 ns
Cramer's V = .08

TABLE 15

ANALYSIS OF VARIANCE SUMMARY TABLE OF BASELINE SERIOUSNESS BY SEX

SOURCE OF VARIATION	SUM OF SQUARES	MEAN SQUARE	D OF F	F
Between groups	378.8750	378.8750	1	0.2026 ns
Within groups	355234.1250	1869.6531	190	
TOTAL	355613.0000		191	

Females mean score 112.973 SD = 40.241
 Males mean score 118.385 SD = 43.452
 t = 0.4502 NS

TABLE 16

BASELINE SERIOUSNESS BY ETHNICITY FOR BOTH STUDY
GROUPS COMBINED

SERIOUSNESS SCORE	WHITE	MINORITY STATUS	TOTAL
0-75.00	26 21%	9 13%	35
75.01-100	21 17%	10 15%	31
100.01-125	25 20%	11 16%	36
125.01 plus	53 42%	37 55%	90
TOTAL	125	67	192

$\chi^2 = 3.22$ 3 degrees of freedom ns

TABLE 17

ANALYSIS OF VARIANCE FOR BASELINE OFFENSE SERIOUSNESS
 SCORES BY ETHNICITY - BOTH STUDY GROUPS COMBINED

	SUM OF SQUARES	MEAN SQUARE	DEGREES OF FREEDOM	F
Between groups	6252.00	6252.00	1	3.40 NS
Within groups	349,376.00	1838.82	190	
TOTAL	355,628.00		191	

Minority Status Mean score 125.77 N = 67
 White Mean score 113.81 N = 125

TABLE 18

SERIOUSNESS BY AGE FOR BOTH STUDY GROUPS

SERIOUSNESS SCORE	Age						TOTAL
	13 & YOUNGER	14	15	16	17	18 & up	
0-75.00	7 21%	7 23%	5 15%	5 15%	4 15%	7 23%	35
75.01-100.00	4 12%	6 20%	6 18%	4 12%	5 18%	4 13%	29
100.01-125.00	3 9%	6 20%	7 21%	7 21%	8 30%	3 10%	34
125.01 and up	19 58%	11 37%	15 46%	17 52%	10 37%	17 55%	89
TOTAL	33	30	33	33	27	31	187

$\chi^2 = 10.31$ 15 degrees of freedom
 ns Contingency coefficient = .23

TABLE 19

MEAN SERIOUSNESS SCORE BY AGE FOR EACH STUDY GROUP

AGE	MEAN SCORE		N
	CMCS	CONTROL	
11 years	109.56	94.77	4
12 years	119.47	98.28	7
13 years	128.82	58.51	22
14 years	120.00	84.07	30
15 years	117.21	116.11	33
16 years	112.82	138.51	33
17 years	119.19	106.78	27
18 years	110.95	147.50	22
19 years	129.02	--	1
TOTAL N	146	46	192

TABLE 20

DISPOSITION BY STUDY GROUP FOR CLIENTS' ENTRY REFERRALS

Mean No. of Referrals Receiving a Given Disposition

DISPOSITION	STUDY GROUP		F	t	LEVEL OF SIGNIFI- CANCE
	CMCS	CONTROL			
No hearing	.50	.58	.41	.64	ns
No direct supervision by court	.14	.27	3.49	1.87	ns
Formal probation	.48	.31	4.44	2.11	<.05
Commit to MacLaren/Hillcrest	0	.02	3.01	1.73	ns
Continued supervision no status change	.08	.02	1.50	1.22	ns
No. of referrals	155	52			

TABLE 21

DISPOSITION BY STUDY GROUP FOR CLIENTS' REFERRALS OCCURRING
DURING TRANSITION
(after entry referral but before end of baseline)

Mean no. of referrals receiving a given disposition

DISPOSITION	STUDY GROUP		F	t	LEVEL OF SIGNIFI- CANCE
	CMCS	CONTROL			
No hearing	.53	.64	.22	.47	ns
No direct supervision by court	.18	.18	.00	.02	ns
Formal Probation	.13	.27	1.22	1.11	ns
Commit to MacLaren/ Hillcrest	.03	0	.29	.53	ns
Continued supervision no status change	.21	0	2.81	1.68	ns
Number of referrals	38	11			

TABLE 22

LENGTH OF VARIOUS STUDY PERIODS BY STUDY GROUP

MEAN NO. OF MONTHS

STUDY PERIOD	CMCS	CONTROL	F	t	LEVEL OF SIGNIFICANCE
Active supervision	Mean 9.53 SD 3.39	Mean 3.20 SD 3.07	127.65	11.29	<.001
Closure-after a period of active supervision	Mean 1.47 SD 2.90	Mean 2.22 SD 2.81	2.37	1.54	ns
Total time in project since assignment to a study group	Mean 11.00 SD 3.12	Mean 5.41 SD 4.09	96.12	9.80	<.001

TABLE 23

MONTHS OF ACTIVE SERVICE BY NO. OF OFFENSES COMMITTED DURING
ACTIVE SERVICE FOR BOTH STUDY GROUPS COMBINED

MONTHS OF SERVICE	No. of Offenses				TOTAL
	NONE	1	2	3 OR MORE	
1-3	75%	11%	6%	8%	36
4-6	52%	15%	18%	15%	27
7-9	57%	19%	11%	13%	37
10-12	53%	10%	17%	20%	59
13-15	29%	21%	4%	46%	28
TOTAL	101	27	22	37	187

The likelihood of committing an offense increases with time under supervision after one year.

TABLE 24

BASELINE TO SERVICE PERIOD COMPARISONS -
 SERVICE PERIOD SCORES ADJUSTED TO A 12 MO. PERIOD

TYPE OF OFFENSE	CMCS N = 147		CONTROL N = 46	
	BASELINE	SERVICE	BASELINE	SERVICE
Target	190 Mean (1.30) SD 0.842	93 Mean (0.63) SD 1.38	68 Mean (1.48) SD 1.049	52 Mean (1.13) SD 2.88
Status	58 Mean (.40)	96 Mean (.65)	21 Mean (.46)	104 Mean (2.26)
Other	92 Mean (.63)	108 Mean (.73)	41 Mean (.89)	76 Mean (1.65)
TOTAL	340 Mean (2.33)	297 Mean (2.02)	130 Mean (2.83)	232 Mean (5.04)

Target offenses CMCS $t = 4.99$ d of $f = 145$ $p = < .001$
 Target offenses Control $t = .76$ d of $f = 45$ N.S.

TABLE 25

NO. OF OFFENSES COMMITTED BY MONTHS OF SUPERVISION BY STUDY GROUP

NO. OF OFFENSES	Months of Supervision								TOTAL		
	1-3		4-6		7-9		10 & UP				
	CMCS	CONTROL	CMCS	CONTROL	CMCS	CONTROL	CMCS	CONTROL			
None	64%	80%	65%	30%	54%	100%	46%	0	76	25	101
									52%	61%	
One	18%	8%	18%	10%	20%	0	14%	0	22	5	27
									15%	12%	
Two	0	8%	12%	30%	11%	0	12%	33%	16	6	22
									11%	15%	
Three or more	18%	4%	10%	30%	15%	0	27%	67%	32	5	37
									22%	12%	
Subtotal	11	25	17	10	35	2	84	3	147	41	187
TOTAL	36		27		37		87		187		

TABLE 26

MEAN NO. OF OFFENSES BY OFFENSE TYPE BY STUDY GROUP
 OCCURRING DURING ACTIVE SUPERVISION BASED ON A 9 MO. SERVICE PERIOD

OFFENSE TYPE	CMCS	CONTROL	t	DEGREES OF FREEDOM	LEVEL OF SIGN. (ONE TAIL)
Target	Mean .476 SD 1.036	Mean .8478 SD 2.16	-2.44	51	<.01
Status	Mean .490 SD 1.246	Mean 1.6956 SD 4.227	-1.89	48	<.05
Other	Mean .551 SD 0.945	Mean 1.239 SD 3.072	-1.49	48	NS
TOTAL	Mean 1.517 SD 2.345	Mean 3.78 SD 7.986	-1.88	48	<.05

Number of
Clients

147

46

TABLE 27

MEAN NO. OF OFFENSES BY TYPE OF STUDY GROUP OCCURRING
DURING CLOSURE AFTER A PERIOD OF ACTIVE SUPERVISION
BASED ON 2 MONTH TIME PERIOD

OFFENSE TYPE	STUDY GROUP		F	t	LEVEL OF SIGNIFICANCE
	CMCS	CONTROL			
Target	Mean .007 SD 0.082	Mean 0.174 SD 0.902	4.97	2.23	<.05
Status	Mean 0.000 SD 0	Mean 0.065 SD 0.327	5.92	2.43	<.05
Other	Mean 0.000 SD 0	Mean 0.196 SD 0.542	19.35	4.39	<.001
TOTAL	Mean 0.007 SD 0.082	Mean 0.435 SD 1.328	15.26	3.91	<.001

No. of
Clients

147

46

TABLE 28

OFFENSE SERIOUSNESS SCORES FOR OFFENSE COMMITTED DURING ACTIVE SUPERVISION BY STUDY GROUP BY LENGTH OF SERVICE PERIOD

SERVICE SERIOUSNESS SCORES	Time Under Supervision					
	One to three months		Four to six months		Seven months & up	
	CMCS	CONTROL	CMCS	CONTROL	CMCS	CONTROL
0-75.00	91%	92%	100%	70%	73%	80%
75.01-100.00	0	0	0	0	1%	20%
100.01-125.00	0	4%	0	0	3%	—
125.01 & Up	9%	4%	0	30%	23%	—
TOTAL	11	25	17	10	127	5 195

No significant X^2 in any time interval

TABLE 29

OFFENSE SERIOUSNESS SCORES FOR OFFENSES COMMITTED SINCE
 ASSIGNMENT TO STUDY GROUP BY STUDY GROUP BY LENGTH OF
 TIME SINCE ASSIGNMENT TO STUDY GROUP

SERIOUSNESS SCORE	1-3 months		4-6 months		7-9 months		10-12 months		TOTAL
	CMCS	CONTROL	CMCS	CONTROL	CMCS	CONTROL	CMCS	CONTROL	
0-75.00	6 100%	10 77%	5 83%	8 89%	18 85%	7 100%	89 79%	7 64%	150
75.01-100.0	0	1 8%	0	0	0	0	1 1%	1 9%	3
100.01-125.00	0	0	1 17%	0	1 5%	0	3 3%	0	5
125.01 & up	0	2 15%	0	1 11%	2 10%	0	19 17%	3 27%	27
TOTAL	6	13	6	9	21	7	112	11	185

TABLE 30

DISPOSITION BY STUDY GROUP FOR CLIENTS' REREFERRALS OCCURRING
WHILE UNDER ACTIVE SUPERVISION

Mean No. of Referrals Receiving A Given Disposition

DISPOSITION	Study Group		F	t	LEVEL OF SIGNIFICANCE
	CMCS	CONTROLS			
No hearing held	.651	.744	.65	.81	NS
No direct supervision by the court	.195	.16	.23	.48	NS
Formal Probation	.09	.05	.82	.91	NS
Commit to MacLaren/Hillcrest	.05	.19	8.44	2.91	<.01
Continued supervision No status change	.17	0	6.31	2.51	<.05

No. of rereferrals

169

43

TABLE 31

COMMITMENT BY STUDY GROUP (NOT ADJUSTED FOR LENGTH OF
TIME SINCE ASSIGNED TO PROJECT)

COMMITTED	CMCS	CONTROL	TOTAL
Yes	8% (12)	3% (1)	13
No	92% (134)	97% (38)	172
TOTAL	146	39	185

χ^2 (corrected) = 0.77 d of f = 1

NS

Phi ϕ = .06

TABLE 32

OUT OF HOME PLACEMENTS BY STUDY GROUP

	Study Group		F	t	LEVEL OF SIGNIFICANCE
	CMCS	CONTROL			
Mean no. of placements	.177	.152	.10	.31	NS
No. of clients	147	46			

Analysis of variance & tabular analysis - not significant

Range 0-3 $\chi^2 = 3.15$ with 3 d of f NS

TABLE 33

COUNSELOR CHANGES BY STUDY GROUP UNADJUSTED FOR
DIFFERENCES IN LENGTH OF SUPERVISION

NO. OF CHANGES	CMCS	CONTROL	TOTAL
None	86%	72%	159
1 change	14%	15%	28
2 changes	0	2%	1
3 changes	0	7%	3
4 changes	0	4%	2
TOTAL	147	46	193

$$\chi^2 = 20.02$$

$$d \text{ of } f = 4$$

$$\text{Sign. } < .001$$

TABLE 34

COUNSELOR CHANGES BY STUDY GROUP
NOT ADJUSTED FOR LENGTH OF SUPERVISION

	CMCS	CONTROL	F	t	LEVEL OF SIGNIFICANCE
Mean no. of counselor changes	.143	.565	16.2850	4.04	<.001
Counselor changes per 3 month interval	.948	.565	-	-	-
Counselor changes per 12 month interval	1.33	2.26	-	-	-
TOTAL	7	26	-	-	-

ERRATA*

Case Management Corrections Services Project
Preliminary Outcome Assessment
Evaluation Report No. 3

Introduction

Originally offense scores were adjusted to make comparisons between the two study groups using the following logic:

The mean length of service for CMCS clients was 9.53 months compared to 3.19 months for the control clients. Multiplying the control service period by three brought their service period to 9.57, comparable to that of CMCS. Each control client's offense score during active supervision was multiplied by three to adjust it to the 9.5 month service base to make the comparisons in Table 26 in the original report. To make the baseline to service period comparisons in Table 24 the control scores were multiplied by four and the CMCS scores were multiplied by 1.33.

Upon reconsideration of the data it was decided a more accurate projection of the offense data could be obtained if each individual client's offense scores were adjusted on the basis of that client's actual months of service rather than on the basis of the group's mean months of service. Tables 24 and 26 have been revised and are attached using this procedure.

The recomputation made little difference for the Case Management clients but it did considerably alter the scores of the control group. As a result of the recomputation, the findings of statistical significance in the first report have not been supported. Specific corrections to that original report are outlined below.

1. Summary of Findings, item no. 5.

"5. Baseline offense scores compared to service period offense scores (adjusted to a 12 month service period base) for each study group examined separately show no statistically significant reduction or increase in number of offenses for any offense category. Comparison of change scores (baseline to service period) between the two study groups for each offense category was also not statistically significant. (See corrected Table 24 and new Table 24a attached). These data indicate that the Case Management Correction Services Project has not been any more successful than the regular juvenile court probation program in the reduction of client offense behavior during the project's early implementation phase."

*Thanks to Dr. Joseph Sasfy of Mitre Corporation who raised the issue as to how offense scores were adjusted to compute the tests of statistical significance between the two study groups.

2. Summary of Findings, item no. 6.

"6. Comparison of offenses committed during active supervision adjusted to a 9 month service period base reveal that although CMCS clients commit fewer target, status, other and total offenses than control clients, these differences are not statistically significant and could have occurred due to chance alone." (See corrected Table 26, attached.)

3. Summary of Findings, item no. 8.

"8. Cost effectiveness comparisons, taking into account field service supervision costs, indicate that it costs approximately \$247.33 more per client per year to keep a youth under Case Management supervision. This client will return to court an average of two times while the control client will return to court three times."

4. Page 12, beginning at top of page.

"Table 24 gives the baseline to service period (using adjusted offense scores) for each study group. For Case Management clients, there was a 51 percent decrease in the number of target offenses committed, (well over the 2 percent goal in the project proposal), a 72 percent increase in status offenses, an 18 percent increase in other offenses, and an 11 percent decrease in total offenses committed. None of these changes in offenses from baseline to service for the Case Management group are statistically significant. (A "Z score" was employed as the test of statistical significance.)

"For control clients there was also a decrease in target offenses (38 percent) and an increase of 161 percent in status offenses. There was a 29 percent increase in other offenses with a 15 percent increase in total offenses. None of these changes from baseline to service period offense scores for the control group were statistically significant based on Z scores."

5. Page 12, Comparisons of offense behavior for CMCS versus control clients during active supervision, second paragraph.

"Using offense scores adjusted to a nine month service period base, the answer to the above question is that the Case Management clients commit less target, status, other and total offenses during nine months of supervision than did the juvenile court clients although these differences are not statistically significant and could be due to chance alone. These preliminary data indicate, then, that the Case Management Project was not any more successful in significantly reducing client offenses than was the regular juvenile court program during the initial implementation stage of Case Management. (Table 26 here.)"

TABLE 24

BASELINE TO SERVICE PERIOD COMPARISONS -
SERVICE PERIOD SCORES ADJUSTED TO A 12 MO. PERIOD*

TYPE OF OFFENSE	CMCS N = 146		CONTROL N = 46	
	BASELINE	SERVICE	BASELINE	SERVICE
Target	190 Mean (1.30) SD (0.84)	92 Mean (.62) SD (1.72)	68 Mean (1.48) SD (1.05)	42 Mean (.91) SD (2.42)
Status	58 Mean (.40) SD (.83)	100 Mean (.68) SD (1.74)	21 Mean (.46) SD (.66)	55 Mean (1.20) SD (3.20)
Other	92 Mean (.63) SD (.95)	109 Mean (.74) SD (1.38)	41 Mean (.89) SD (1.27)	53 Mean (1.16) SD (3.00)
TOTAL	340 Mean (2.33) SD (1.79)	301 Mean (2.05) SD (3.58)	130 Mean (2.83) SD (2.08)	150 Mean (3.27) SD (6.88)

*Scores were computed by multiplying the service period offense score by 12 months divided by the actual number of months the client was under supervision. Thus a client with 2 offenses committed during 6 months of supervision would have an adjusted score of $(2)(12/6)$ or an adjusted score of 4.

Changes in scores from baseline to service for each offense category for each study group separately are not statistically significant as computed by Z scores.

TABLE 24a

Change Scores: Baseline to Service Period
between Study Groups

Type of Offense	CMCS	Control	Z*
Target	$M_{b-s} = .68$ $\sigma_{b-s} = 1.93$	$M_{b-s} = .57$ $\sigma_{b-s} = 2.64$.03 n.s.
Status	$M_{b-s} = .28$ $\sigma_{b-s} = 1.93$	$M_{b-s} = -.74$ $\sigma_{b-s} = 3.27$.12 n.s.
Other	$M_{b-s} = -.11$ $\sigma_{b-s} = 1.68$	$M_{b-s} = -.27$ $\sigma_{b-s} = 3.26$.04 n.s.
Total	$M_{b-s} = .28$ $\sigma_{b-s} = 4.00$	$M_{b-s} = -.44$ $\sigma_{b-s} = 7.19$.02 n.s.

M_{b-s} Baseline mean minus service period mean

σ_{b-s} Standard error for mean change $\sigma_{b-s} = \sqrt{\sigma_b^2 + \sigma_s^2}$

$$Z = \frac{M_b - M_s}{\sigma_{b-s}}$$

*Guilford, J.P., Fundamental Statistics in Psychology and Education, 4th ed., New York: McGraw-Hill, 1965, pp. 194-197.

TABLE 26

MEAN NO. OF OFFENSES BY OFFENSE TYPE BY STUDY GROUP
OCCURRING DURING ACTIVE SUPERVISION BASED ON A 9 MO. SERVICE PERIOD*

OFFENSE TYPE	CMCS		CONTROL		t	DEGREES OF FREEDOM	LEVEL OF SIGNIFICANCE
Target	Mean SD	.468 1.289	Mean SD	.685 1.816	-.8956	192	NS
Status	Mean SD	.509 1.305	Mean SD	.902 2.400	-1.4232	192	NS
Other	Mean SD	.559 1.031	Mean SD	.867 2.252	-1.2881	192	NS
TOTAL	Mean SD	1.537 2.686	Mean SD	2.454 5.158	-1.5812	192	NS

Number of Clients 147

46

* Scores were computed by multiplying the service period offense score by 9 months divided by the actual number of months the client was under supervision. Thus a client with 2 offenses committed during 6 months of supervision would have an adjusted score of $(2) (9/6)$ or an adjusted offense score of 3.

END

7. 11/15/1964