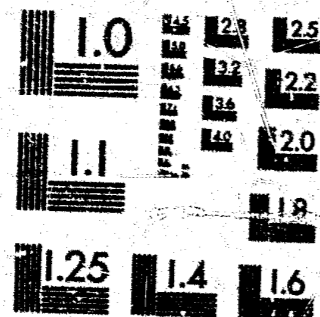


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THE IMPACT OF RESTITUTION ON RECIDIVISM OF  
JUVENILE OFFENDERS:  
AN EXPERIMENT IN CLAYTON COUNTY GEORGIA

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February, 1984

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Funding for this research was provided by Grant Nos. NI-89-0005, 79-JN-AX-0009, and 82-JS-AX-0025 from the Office of Justice Administration and Research, National Institute of Juvenile Justice, Department of Justice, Washington D.C. to the Institute of Policy Analysis, Eugene, Oregon. Points of view or opinions stated in this document are those of the authors, and do not necessarily represent the official position or policies of the Department of Justice.

ABSTRACT

Juvenile courts have increasingly been interested in using restitution as a sanction for juvenile offenders but until recently, very little information has been available on the effects of restitution. To assess the impact of restitution on recidivism rates of juveniles, a series of experiments was undertaken as part of the national evaluation of the OJJDP-funded Juvenile Restitution Initiative. This report contains the results from one of those experiments.

The findings from the Clayton county, Georgia, experiment indicate that youths required to make restitution to their victims either through community service or monetary payments generally had lower recidivism rates than those given the more traditional juvenile court dispositions. Furthermore, the results clearly suggest that restitution works quite well on its own, and does not need to be combined with mental health counselling.

In contrast with many other types of delinquency programs, the restitution intervention not only had a positive impact when contrasted with traditional dispositions, but actually slowed the delinquency rate of the group. The overall offense rate of the restitution-only group, for example, dropped from approximately one offense per youth, per year, to .74 offenses, per youth for a one-year time period.

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INTRODUCTION

Prior to the planned experiments conducted as part of the National Juvenile Restitution Program Evaluation, only scanty information was available about the impact of restitution on recidivism (1). Empirical studies of restitution have been reported only since the late 1970s and most of these defined the effectiveness of restitution in terms of its impact on victims (Galaway and Hudson, 1978; Hudson and Galaway, 1977; Schneider, 1975; Sutton, 1976). The amount of loss returned, the number or proportion of victims provided with restitution, victim satisfaction with the outcome of the case, and victim perceptions of the fairness or "justice" of the sentence were the common performance indicators included in the early empirical studies.

The first two studies which sought to link restitution with reduced recidivism were both conducted with adult parolees after their release from prison. Heinz, Hudson and Galaway in 1976 reported that the restitution group had fewer convictions after release than a matched group of incarcerated offenders. Similar results were found by Hudson and Chesney (1978) in their two-year followup of adult offenders released from the Minnesota Restitution Center.

In a study conducted by Bonta, et. al. (1983), adult offenders in a restitution program had higher recidivism rates than those in a control group, although the differences

were not statistically significant. Both groups were housed in a community resource center. The control program permitted offenders to maintain employment by serving their sentences in the community resource center. The authors point out that the restitution group was a higher-risk group than the others prior to the intervention and that this could have diminished the true impact of the program.

Both of the first two tests of restitution's effect on recidivism of juvenile offenders were undertaken by doctoral candidates. In one of these, conducted by M. L. Wax at Washington State, juveniles were randomly assigned into one of three groups: monetary restitution (with the victim present at sentencing), community service restitution, and a control group which had no contact with victims and paid no restitution. No differences in recidivism rates were found to be statistically significant although restitution was observed to have positive effects on some of the psychological tests (Wax, 1977). The size of the sample in this study, however, was so small (36 total) that the possibility of finding an impact, even if one existed, was exceptionally low.

The second doctoral study examined recidivism rates of approximately 250 offenders in the Tulsa county juvenile restitution program (Guedalia, 1979). Variables found to be significantly related to reduced recidivism were victim contact and restitution orders of less than \$100. The latter, of course, could simply be a reflection of a less

serious immediate offense (hence the lower amount of the restitution order).

Two recent studies of recidivism rates among juvenile delinquents sentenced to restitution reported positive effects. Cannon and Stanford (1981) found a 19 percent rearrest rate among restitution cases over a six month time period compared with a 24 percent rates for the nonrestitution groups. Hofford (1981) reported an 18 percent recidivism rate for youths in the juvenile restitution program compared with a 30 percent rate for those on regular probation.

The results from these studies are instructive and encouraging although they are far from being definitive. As is the case with virtually all field research, serious methodological problems confound most of the studies making it necessary to rely more heavily on replication of findings than on any single study. With the exception of Wax's study and the adult study by Heinz, et. al., none achieved a satisfactory degree of equivalence between the comparison group and the recidivism group. In the Bonta study, the persons in the restitution group were more serious offenders than those in the control--a factor which clearly could have produced the negative effect on recidivism. In the other juvenile studies, little information was provided on whether the groups were equivalent and multivariate analysis was not conducted in an attempt to hold constant the differences that could have confused the results.

The purpose of this paper is to report on the results of an experiment in the use of restitution for juvenile offenders which was conducted in Clayton county, Georgia as part of the National Juvenile Restitution Evaluation (2).

#### THE PROGRAM AND THE DESIGN

The restitution experiment in Clayton county (a suburb near Atlanta) was designed to compare four distinct treatment strategies: restitution, counseling, restitution and counseling combined, and a control condition which consisted of the normal disposition which could be either probation or incarceration.

Cases were randomly assigned into the four conditions through a multi-tiered process. Following adjudication, all cases were screened by probation during the pre-sentence investigation for eligibility to be considered for the experiment. Juveniles were eligible for the experiment if they were 13 or older, had been convicted of an offense with a demonstrable loss, and had not been convicted of murder, attempted murder, rape, or attempted rape. Youths also were screened out as ineligible if they had a serious drug or alcohol problem, were mentally retarded, or were emotionally disturbed. Eligible cases were then randomly assigned by an on-site evaluator in accordance with a formula that had been devised which would permit the program to meet its programmatic case-flow goals and, simultaneously, would

insure that each group was large enough to support the study.

The actual placement of the youths into the groups was done by the judge at disposition. The judge could, of course, overrule the random assignment but this was seldom done. Of the cases which were included in the study, seven percent received an actual sentence that differed from the randomly assigned one.

The treatments associated with the four groups can be summarized as follows:

**Restitution.** Youths in this group were ordered at disposition to pay monetary restitution and/or to do community service restitution. Service restitution was more common, involving 60 percent of the youths. Of the 40 percent who paid monetary restitution, slightly more than half found their own jobs and the rest obtained employment through the efforts of the restitution program.

The youths kept some of their earnings--on the average, about 40 percent. There were no program subsidies in Clayton county and youths generally were not permitted to pay the restitution from their savings or to have family members assist in the payment. Restitution cases were monitored by restitution case workers who also were responsible for insuring their compliance with normal probation requirements. The average period of supervision was 3.5 months.

**Counseling.** Juveniles with a counseling disposition were assigned to a mental health therapist on the county social service staff. The counseling consisted of a

diagnostic session followed by assignment to one of several special kinds of therapy: recreational, family, and so forth. The probation requirements for these youths were, at first, handled by the restitution program (to increase the equivalence with the restitution group) but this practice had to be abandoned after the first year of operation because the program did not have sufficient staff to monitor the cases. Thereafter, probation monitored the probationary requirements. The average supervision period was 5.6 months.

**Restitution and Counseling.** For this group, both restitution and mental health therapy were ordered at disposition. Restitution and probation requirements were handled by the restitution counsellors. The restitution requirements were quite similar to those for the restitution-only group: 63 percent were ordered to do community service and 44 percent had monetary restitution requirements. Families were not permitted to pay and most of the youths found employment in private or public sector jobs. These youths were under supervision for an average of 5.8 months.

**Control.** Any court-approved disposition was considered appropriate for this group and most were placed on probation (78 percent). Only five percent were incarcerated and the remainder either received some other disposition or were dismissed with no sanction.

## METHODOLOGY

The evaluative criteria covered in this report are successful completion of the restitution requirements and recidivism. Each of the groups is crossed with the others in such a way as to identify the unique and combined effects of restitution and counselling.

### Measuring Successful Completion

Five different indicators of successful completion were used. One of these was the program definition of whether the case was closed "successfully" or not. Although some element of subjectivity may be involved in this variable, the data indicate that unsuccessful closures were those which either did not pay all of the restitution or which reoffended while under program jurisdiction even if they eventually did repay all of the loss.

The second measure was the percentage of the restitution order which was paid (or worked) by the youths and the third was the percentage of youths who paid 100 percent of the amount ordered. The final measure was the proportion of juveniles whose restitution actually covered all of the outstanding victim loss. This measure turned out to be of less value than initially hoped because of the fact that many cases involved co-offenders. Thus, the amount paid by one offender did not necessarily cover the total victim loss.

### Measuring Recidivism

Recidivism was defined as recontacts with the Clayton

county juvenile or adult court. A complete search of all juvenile and adult court records was undertaken by a team of trained individuals from the national evaluation group at the Institute of Policy Analysis. On the average, there were three years of risk time included in the follow-up period. Because of different lengths of time in the various treatments, the at-risk time period was measured from program referral rather than from program exit. Thus, the recontacts include any that were made while the youth was under program supervision.

Multiple measures of recidivism were used to incorporate both the seriousness and frequency of reoffending as well as to minimize possible misinterpretations based on single-variable analysis. The measures used were:

**Overall Recidivism.** Overall recidivism was a composite score including all recontacts with the court for delinquent acts during the follow-up period. Frequency was used as one measure of overall recidivism (i.e., the total number of recontacts) and the overall rate of recidivism was calculated by dividing the number of reoffenses committed by the youth by the amount of time the youth had been at risk. Juveniles with no reoffenses had differing follow-up periods, however, because they entered the programs at different points in time. A simple delinquency rate found for these youths involves dividing zero reoffenses by the risk time which, of course, produces a score of zero regardless of whether the youth had six months of time at risk or four years. To

distinguish among the non-recidivists so that those with longer periods of time at risk have lower scores, a small constant (.01) was added to the numerator of this measure (Sutton, 1980).

**Crime Specific Recidivism.** The frequency and rate of recidivism for each of six different categories of crimes were also calculated. The categories were violent offenses (Table 2 contains a complete listing of the crimes in each category), serious property offenses (burglary and arson), other felony property offenses, minor property offenses, minor personal offenses, and trivial offenses.

**Seriousness Indices.** Three variables representing seriousness indices were used. One of these was an ordinally-coded variable representing the most serious offense committed by the juvenile. Violent personal offenses were coded "6" followed by serious property offenses "5", other felony property offenses "4", minor personal offenses "3", minor property offenses "2", and trivial offenses, "1".

A second variable representing seriousness was created by scoring each reoffense in terms of its seriousness and then summing these to obtain an overall measure of frequency and seriousness of reoffenses. The final variable seriousness indicator a rate in which the overall score for each youth was divided by the amount of time at risk thereby taking into account that youths with longer follow-up periods would be expected to have more reoffenses.

**Establishing Causality**

Because the juveniles were randomly assigned into the groups, the bivariate relationship between the type of program and the dependent variable should be sufficient to establish the magnitude of program impact. Nevertheless, multivariate analyses also were conducted because--apparently due to sampling variation--there were some differences among the four groups. The restitution only group, for example, had a substantially higher pre-intervention delinquency record. On the whole, as is shown below, the multivariate results and the bivariate results were the same.

Another problem was that not all the youths actually received the treatment to which they had been randomly assigned. The crossover problem was handled by analyzing the data with each case treated as if it were in the group to which it had been randomly assigned. These results were compared with analyses in which each case was coded in accordance with actual treatment and there were no differences between the analyses. Thus, only the former are reported here.

## FINDINGS

Clayton county juvenile delinquents eligible for the experiment were overwhelmingly white (as is the population as a whole), approximately 15 years of age, and predominately male (see Table 1). Juveniles in the restitution-only group had more priors, on the average, than did youths in the other three treatment categories.

Table 2 shows the types of immediate offenses for which the youths were referred to the court. Between one-fourth and one-half of the juveniles were referred for felony offenses and most of the others had been involved in minor property offenses such as shoplifting, vandalism, or other theft. There were no status offenses and only a few of the extremely minor "trivial" offenses such as trespass and fighting.

### Successful Completion

The restitution-only group was compared with the restitution-counseling group to determine whether the latter produced any improvement in the successful completion rates. As shown in Table 3, the successful completion rates were very high and there were no important differences between the groups. The restitution-only group had slightly better completion rates, as defined by the program, although the restitution and counseling group had slightly more of its youths repaying the entire amount ordered.

TABLE 1. PROFILE OF REFERRALS TO THE EVALUATION GROUPS  
IN CLAYTON COUNTY

	Restitution Restn. R&C		Nonrestitution C Control	
<b>SCHOOL STATUS</b> (# of Cases)	(71)	(74)	(55)	(55)
Full Time	76%	82%	75%	86%
Not in School	24	18	25	14
<b>RACE</b> (# of Cases)	(72)	(72)	(55)	(54)
White	94%	96%	96%	100%
Black	6	4	4	0
<b>AGE</b> (# of Cases)	(73)	(74)	(55)	(55)
13 and Under	12%	11%	18%	18%
14	16	11	13	13
15	26	28	29	38
16	34	46	35	15
17	11	4	6	15
18 and Over	0	0	0	2
<b>PRIOR OFFENSES</b> (# of Cases)	(73)	(74)	(55)	(56)
None	43%	57%	44%	46%
One	19	19	33	25
Two to Four	26	8	18	20
Five or More	15	1	5	9
<b>SEX</b> (# of Cases)	(73)	(74)	(55)	(56)
Male	86%	90%	78%	90%
Female	14	20	22	20

TABLE 2. TYPES OF REFERRAL OFFENSES  
IN CLAYTON COUNTY

	Restitution Restn. R&C		Nonrestitution C Control	
<b>VIOLENT</b>				
Armed Robbery	0	1	0	0
Aggravated Assault	0	1	1	0
% of Group Total	0%	3%	2%	0%
<b>SERIOUS PROPERTY</b>				
Burglary	9	22	22	14
% of Group Total	12%	30%	40%	25%
<b>OTHER FELONY PROPERTY</b>				
Motor Vehicle Theft	8	4	3	3
Forgery, Fraud, Embezl.	1	1	1	0
% of Group Total	1%	7%	7%	5%
<b>MINOR PERSONAL</b>				
Simple Assault	4	0	2	3
Assault and Battery	1	1	0	0
Intimidation	0	0	0	1
% of Group Total	7%	1%	4%	7%
<b>MINOR PROPERTY</b>				
Shoplifting	10	12	8	8
Vandalism	10	9	6	12
Theft from Motor Vehc.	6	4	1	9
Stolen Property (Buying, Receiving, Selling)	4	1	1	1
Bicycle Theft	1	3	1	4
Purse/Satch & Pickpckt.	0	0	3	0
Criminal Mischief	0	1	0	0
Other Theft	13	12	6	1
% of Group Total	60%	57%	47%	63%
<b>TRIVIAL OFFENSES</b>				
Driving Under the Infl.	1	1	0	0
Trespass	5	0	0	0
Fighting	0	1	0	0
% of Group Total	8%	3%	0%	0%



TABLE 3. SUCCESSFUL COMPLETION OF RESTITUTION ORDERS IN CLAYTON COUNTY

	Restitution Only	Restitution and Counselling
(# of Cases)	73	74
Successful Completion (as Defined by Programs)	86%	82%
<b>MONETARY RESTITUTION</b>		
(# of Cases)	26	27
Restitution Payments as Proportion of Restitution Order (Average, per youth)	92%	96%
Percentage of Youths Paying 100% of Restitution Ordered	85%	96%
Percentage of Youths Paying all of the Outstanding Victim Loss (1)	24%	26%
<b>COMMUNITY SERVICE</b>		
(# of cases)	45	42
Percentage of Youths Working all the Hours Ordered	98%	95%

(1) Some incidents involved co-offenders and the full payment may have been made to the victim when the amounts from all offenders are combined.

### Recidivize

Table 4 contains a considerable amount of descriptive information regarding the reoffense patterns of youths in all four groups.

The restitution groups were somewhat less likely to commit subsequent offenses during the three-year followup period as 51 percent of the restitution-only group did not reoffend and 54 percent of the restitution-counselling group also did not commit another offense. These figures compare with a 40 percent and 48 percent for the counselling-only group and the controls. Table 4 also shows the proportion committing each type of offense. About two-thirds of the subsequent offenses were in the minor property and trivial categories with about one-fourth to one-third in the felony categories. Again, the restitution groups tended to have less serious reoffenses than the others.

Group offense rates have been calculated and also are displayed in Table 4. These rates permit a more refined judgment about the subsequent behavior of youths in each group since the total number of offenses committed by all of the youths in the group can be summarized in a single figure. The overall group reoffense rates should be interpreted as the number of offenses committed by the group, per 100 youths, per year. Again, the restitution groups have better scores with the restitution-only group committing 64 new offenses per 100 youths, per year, compared with 47 for the restitution-counselling group, 84 for the counselling only

TABLE 4. REOFFENSE PATTERNS OF JUVENILE OFFENDERS IN CLAYTON COUNTY

	Restitution Restn. R&C		Nonrestitution C Control	
# of Cases	73	74	55	56
<b>OVERALL RECIDIVISM</b>				
% with 0 Reoffenses	51%	54%	40%	48%
% with 1 Reoffense	10	11	26	20
% with 2 Reoffenses	8	14	7	7
% with 3 Reoffenses	11	8	6	7
% with 4-6 Reoffenses	12	11	15	7
% with 7+ Reoffenses	8	3	7	11
<b>VIOLENT SUBSEQUENT</b>				
% With 0	97	97	96	98
% with 1 or more	3	3	4	2
<b>SERIOUS PROPERTY (BURGS)</b>				
% with 0	88	88	82	86
% with 1 or more	12	12	18	14
<b>OTHER FELONY PROPERTY</b>				
% with 0	99	100	86	91
% with 1 or more	1	0	14	9
<b>MINOR PERSONAL</b>				
% with 0	92	89	80	93
% with 1 or more	8	11	20	7
<b>MINOR PROPERTY</b>				
% with 0	69	77	71	66
% with 1 or more	31	23	29	34
<b>TRIVIAL</b>				
% with 0	58	72	62	68
% with 1 or more	42	28	38	32

TABLE 4. [CONTINUED]

	Restitution Restn. R&C		Nonrestitution C Control	
<b>GROUP REOFFENSE RATES</b>				
# of Cases	73	74	55	56
# Of Subsequent Offenses for group	136	101	139	129
Months of Risk Time for group	2548	2626	1976	2066
Avg. Risk Time per Youth (in months)	35	35	36	37
Avg. No. of Offenses Per Year	1.86	1.36	2.53	2.30
Overall Reoffense Rate, per 100 Youths, per Year	64	47	84	75
<b>CRIME SPECIFIC RATES (Per 100 youths, per year)</b>				
Violent	1	1	1	1
Serious Property (Burglary and Arson)	6	8	16	8
Other Felony Property	0	0	5	3
Minor Personal	6	6	7	3
Minor Property Offenses	21	14	27	36
Trivial Offenses	30	17	27	24

and 75 for the controls.

The types of subsequent offenses for the group rates are clustered in the minor and trivial categories rather than the felonies.

Additional descriptive information about the reoffending patterns is shown in Table 5. Here, the group reoffense rates prior to the intervention and after the intervention are shown for comparative purposes. For the restitution-only group, the pre-program rate, per 100 youths per year, was 101 offenses (i.e., about one per juvenile during a year's time). After the intervention, this had dropped to 74 per year, per 100 youths. Since the pre-intervention records search extended back for two years prior to program referral, these data show that the restitution-only group committed about one offense per year between the ages of 13 and 15 (on the average) and about .75 per year between the ages of 15 and 18—a decline large enough to be of some interest.

Drops in the post-intervention rates of similar magnitudes were not observed for any of the other three groups. The restitution and counselling group had an offense rate, pre-program, of 55—only about half that of the restitution-only group. This rate also declined (from 55 per 100 youths per year to 47). The counselling-only group showed an increase after the intervention (from 64 to 84) and the controls had exactly the same group offense rate before and after the intervention.

TABLE 5. PRE POST COMPARISONS OF GROUP OFFENSE RATES

	Restitution Restn.		R&C		Nonrestitution Counsl.		Control	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
OVERALL RATES (Per 100 youths, per year)	101	74	55	47	64	84	75	75
Violent	2	1	3	1	2	1	1	1
Serious Property (Burg & Arson)	14	6	13	8	11	16	7	8
Other Felony Property	1	0	3	0	11	5	11	3
Minor Personal	7	6	5	6	6	7	3	3
Minor Property	51	21	21	14	21	27	44	36
Trivial	26	30	11	17	13	27	10	24

Figures in the cells for the "pre" period show the rate of offenses per year committed by each 100 youths during the pre-intervention time period which covered two years. For the post time period, similarly computed yearly rates are displayed based on approximately 36 months of data. Both figures, of course, are corrected to show the offense rate, per year, for a group of 100 youths.

### Causal Analysis

Bivariate and multiple regression analyses were conducted to assist in the determination of whether the differences observed among the four groups were produced by the differences in programs or whether distinctions of the size observed might have been the result of chance covariance or other variables.

The first comparison (see Table 6) is between both of the restitution groups and the two nonrestitution groups. (The restitution-only and the restitution-counseling groups were combined for this analysis as were the counseling-only and the control groups). The bivariate analysis (zero-order correlations) show that the restitution groups did somewhat better ( $r=.11$  for both the frequency and rate of reoffending). The significance levels of .05 and .04, respectively, indicate only a small probability that the differences were produced by chance.

In a similar way, the multivariate analysis indicates that the restitution program had a positive effect of reducing recidivism even when prior offenses, age, race, school status, and sex were controlled in the equation.

The positive effect of restitution was observed for most of the different types of property crimes but no difference appears between the groups for personal crimes--whether violent or minor. This could be at least partially attributable to the small number of cases in the personal crime categories. The positive effect of restitution also

TABLE 6. COMPARISON OF RECIDIVISM RATES OF YOUTHS WITH RESTITUTION AND WITHOUT RESTITUTION

	Zero-Order r	osl	Partial b	s.e.	Partial beta	osl	R sq
<b>OVERALL RECIDIVISM</b>							
Frequency	.11	.05	.83	.45	.11	.07	.14
Rate	.11	.04	.29	.14	.13	.04	.11
<b>VIOLENT OFFENSES</b>							
Frequency	-.03	.31	-.01	.03	-.02	.76	.05
Rate	-.03	.31	-.00	.01	-.02	.79	.05
<b>SERIOUS PROPERTY</b>							
Frequency	.07	.13	.14	.14	.06	.33	.04
Rate	.06	.15	.05	.05	.06	.32	.03
<b>OTHER FELONY PROPERTY</b>							
Frequency	.23	.01	.13	.03	.24	.00	.12
Rate	.23	.01	.04	.01	.24	.00	.12
<b>MINOR PROPERTY</b>							
Frequency	.10	.05	.47	.26	.11	.08	.12
Rate	.11	.04	.16	.08	.13	.04	.12
<b>MINOR PERSONAL</b>							
Frequency	-.01	.44	-.02	.07	-.02	.72	.04
Rate	-.01	.47	-.01	.02	-.01	.82	.03
<b>TRIVIAL</b>							
Frequency	.03	.32	.11	.18	.04	.54	.09
Rate	.03	.34	.04	.06	.04	.48	.05
<b>SERIOUSNESS INDICES</b>							
Most Serious Seriousness Score	.09	.08	.29	.24	.07	.23	.12
Seriousness Rate	.09	.08	.93	.71	.08	.19	.09
Rate	.08	.09	.32	.23	.09	.16	.07

Positive values (for r, b, and beta) indicate that the restitution group recidivated less. OSL refers to observed significance level for a two-tailed test.

was observed in all three tests involving the seriousness indices.

A similar analysis was done to determine whether counselling had an impact on recidivism when contrasted with the non-counselling dispositions. For this analysis, the two counselling groups (restitution-counselling and counselling only) were combined and tested against the combination of the other two groups (control and restitution-only). The data (see Table 7) show that there was no impact attributable to counselling. Positive signs on the correlation coefficient or regression coefficients means that the counselling group did better.

In the bivariate analysis, the two measures of overall recidivism show a very small positive effect for counselling but the significance test indicates a substantial likelihood that the effect was actually produced by chance. Also, the multivariate test results in negative correlations—also very tiny and probably attributable to chance covariation. The tests of the seriousness indices indicate negative effects for counselling—especially in the multivariate analysis—but the significance tests suggest that this, too, may be a chance finding.

The final comparison is between restitution-only and restitution-counselling to determine if counselling contributes to the overall effectiveness of restitution. As shown in Table 8, there is no evidence that counselling is needed. Negative relationships, in fact, indicate that the

TABLE 7. COMPARISON OF RECIDIVISM RATES OF YOUTHS IN COUNSELLING PROGRAMS WITH YOUTHS NOT IN COUNSELLING

	Zero-Order r	cs1	Partial b	s.e.	Partial beta	osl	R sq
<b>OVERALL RECIDIVISM</b>							
Frequency Rate	.03	.34	-.13	.45	-.02	.77	.13
	.02	.39	-.06	.14	-.03	.69	.10
<b>VIOLENT OFFENSES</b>							
Frequency Rate	-.02	.39	-.00	.03	-.00	.95	.05
	-.03	.29	-.00	.01	-.02	.73	.05
<b>SERIOUS PROPERTY</b>							
Frequency Rate	-.07	.13	-.19	.14	-.09	.18	.04
	-.08	.10	-.07	.05	-.09	.14	.04
<b>OTHER FELONY PROPERTY</b>							
Frequency Rate	-.03	.32	-.03	.03	-.06	.32	.07
	-.02	.37	-.01	.01	-.05	.38	.07
<b>MINOR PROPERTY</b>							
Frequency Rate	.06	.18	.07	.26	.02	.79	.11
	.16	.16	.03	.08	.02	.71	.11
<b>MINOR PERSONAL</b>							
Frequency Rate	-.05	.20	-.08	.07	-.08	.23	.04
	-.08	.10	-.04	.02	-.10	.10	.05
<b>TRIVIAL OFFENSES</b>							
Frequency Rate	.07	.14	.11	.18	.04	.53	.09
	.06	.19	.03	.06	.03	.62	.05
<b>SERIOUSNESS INDICES</b>							
Most Serious Seriousness Score	-.02	.37	-.25	.24	-.07	.29	.12
Seriousness Rate	-.07	.15	-1.08	.70	-.10	.13	.09
	-.09	.08	-.42	.23	-.12	.06	.08

Negative values for r, b, and beta mean that the counselling group did worse. OSL refers to the observed significance level, two-tailed test.

was observed in all three tests involving the seriousness indices.

A similar analysis was done to determine whether counselling had an impact on recidivism when contrasted with the non-counselling dispositions. For this analysis, the two counselling groups (restitution-counselling and counselling only) were combined and tested against the combination of the other two groups (control and restitution-only). The data (see Table 7) show that there was no impact attributable to counselling. Positive signs on the correlation coefficient or regression coefficients means that the counselling group did better.

In the bivariate analysis, the two measures of overall recidivism show a very small positive effect for counselling but the significance test indicates a substantial likelihood that the effect was actually produced by chance. Also, the multivariate test results in negative correlations—also very tiny and probably attributable to chance covariation. The tests of the seriousness indices indicate negative effects for counselling—especially in the multivariate analysis—but the significance tests suggest that this, too, may be a chance finding.

The final comparison is between restitution-only and restitution-counselling to determine if counselling contributes to the overall effectiveness of restitution. As shown in Table 8, there is no evidence that counselling is needed. Negative relationships, in fact, indicate that the

TABLE 7. COMPARISON OF RECIDIVISM RATES OF YOUTHS IN COUNSELLING PROGRAMS WITH YOUTHS NOT IN COUNSELLING

	Zero-Order r	cs1	Partial b	s.e.	Partial beta	osl	R sq
<b>OVERALL RECIDIVISM</b>							
Frequency Rate	.03	.34	-.13	.45	-.02	.77	.13
	.02	.39	-.06	.14	-.03	.69	.10
<b>VIOLENT OFFENSES</b>							
Frequency Rate	-.02	.39	-.00	.03	-.00	.95	.05
	-.03	.29	-.00	.01	-.02	.73	.05
<b>SERIOUS PROPERTY</b>							
Frequency Rate	-.07	.13	-.19	.14	-.09	.18	.04
	-.08	.10	-.07	.05	-.09	.14	.04
<b>OTHER FELONY PROPERTY</b>							
Frequency Rate	-.03	.32	-.03	.03	-.06	.32	.07
	-.02	.37	-.01	.01	-.05	.38	.07
<b>MINOR PROPERTY</b>							
Frequency Rate	.06	.18	.07	.26	.02	.79	.11
	.16	.16	.03	.08	.02	.71	.11
<b>MINOR PERSONAL</b>							
Frequency Rate	-.05	.20	-.08	.07	-.08	.23	.04
	-.08	.10	-.04	.02	-.10	.10	.05
<b>TRIVIAL OFFENSES</b>							
Frequency Rate	.07	.14	.11	.18	.04	.53	.09
	.06	.19	.03	.06	.03	.62	.05
<b>SERIOUSNESS INDICES</b>							
Most Serious Seriousness Score	-.02	.37	-.25	.24	-.07	.29	.12
Seriousness Rate	-.07	.15	-1.08	.70	-.10	.13	.09
	-.09	.08	-.42	.23	-.12	.06	.08

Negative values for r, b, and beta mean that the counselling group did worse. OSL refers to the observed significance level, two-tailed test.

TABLE 8. COMPARISON OF RECIDIVISM RATES OF YOUTHS IN RESTITUTION PROGRAMS WITH YOUTHS RECEIVING BOTH RESTITUTION AND COUNSELLING

	Zero-Order r	osl	Partial b	s.e.	Partial beta	osl	R sq
<b>OVERALL RECIDIVISM</b>							
Frequency	-.10	.11	-.36	.40	-.07	.38	.14
Rate	-.09	.14	-.07	.13	-.05	.60	.18
<b>VIOLENT OFFENSES</b>							
Frequency	-.00	.50	.00	.05	.00	.97	.07
Rate	.01	.43	.00	.02	.02	.80	.07
<b>SERIOUS PROPERTY</b>							
Frequency	.06	.24	.14	.12	.10	.25	.06
Rate	.07	.19	.05	.04	.12	.18	.06
<b>OTHER FELONY PROPERTY</b>							
Frequency	-.08	.16	-.01	.01	-.04	.65	.05
Rate	-.03	.16	-.00	.01	-.04	.63	.05
<b>MINOR PROPERTY</b>							
Frequency	-.09	.15	-.18	.18	-.08	.31	.13
Rate	-.10	.11	-.06	.06	-.09	.32	.09
<b>MINOR PERSONAL</b>							
Frequency	-.00	.49	.02	.11	.01	.87	.04
Rate	.02	.42	.02	.03	.04	.65	.03
<b>TRIVIAL OFFENSES</b>							
Frequency	-.16	.03	-.33	.20	-.14	.11	.12
Rate	-.14	.05	-.08	.07	-.11	.22	.07
<b>SERIOUSNESS INDICES</b>							
Most Serious Seriousness Score	-.02	.41	.14	.31	.04	.65	.14
Seriousness Rate	-.01	.44	.28	.76	.03	.71	.09
Seriousness Rate	.01	.43	.20	.25	.07	.42	.07

Positive scores mean that restitution was better without counselling; negative means that restitution was worse without counselling. OSL refers to the observed significance level.

restitution-only sanction worked better than restitution combined with counselling. The differences, however, are extremely small and the observed significance levels, especially in the multivariate analysis, indicate that there were no true differences between the groups.

#### Recidivism Models

Table 9 displays the results of the multiple regression analysis for four of the recidivism variables. The restitution groups were combined and compared against the nonrestitution groups in this analysis and, additionally, the relationship between each of several other predictor variables is shown.

The results indicate—as already pointed out—that the restitution groups generally did better although the pattern of relationships is somewhat uneven. The beta weights for restitution with the overall delinquency index, controlling for risk time, is .11 with a two-tailed significance level of .07; with the subsequent rate (in which the offenses are divided by the risk time rather than controlling the latter in the equation), the coefficient is .13 with a significance level of .04. For the adjusted seriousness rate, which incorporates both frequency and seriousness, the beta weight is of about the same magnitude (.09) but the significance level is .53. The beta weight for the ordinally-coded seriousness score of the most serious recidivist offense is .07 with an observed significance level of .23. On the whole, it appears reasonable to conclude that the restitution

TABLE 9. MULTIPLE REGRESSION MODELS FOR SELECTED MEASURES OF RECIDIVISM IN CLAYTON COUNTY

	Total Subsequents		Subsequent Rate		Adjusted Seriousness Rate		Most Serious Reoffense	
	b	OSL	b	OSL	b	OSL	b	OSL
Restitution vs. Nonrestn.	.11	.07	.13	.04	.09	.55	.07	.23
Age	.00	.95	-.01	.92	-.05	.51	-.09	.18
Sex (1=male, 2=female)	-.04	.53	-.05	.45	-.12	.07	-.17	.01
Number of Priors	.28	.00	.29	.00	.10	.11	.18	.00
School (1=in school; 2=not in school)	.07	.27	.07	.31	.19	.01	.10	.15
Race (1=minority, 2=white)	-.02	.69	-.02	.75	-.01	.94	-.03	.61
Risk Time	.17	.00	N/A		N/A		.20	.00
Multiple R <sup>2</sup>	.14		.11		.07		.12	

Positive values for the restitution variable mean that the restitution youths did better. The probability of t is based on a two-tailed test. Variables which had a (p)t below .05 were not in the equation for the calculation of the multiple R square.

2. In Clayton county, particular recognition and thanks should go to Judge Martha Glaze for her cooperation throughout the study and to Francis Brown who served, first, as the on-site evaluator and later as project director. Gordon Bazemore of the IPA staff was largely responsible for the design and for maintaining the integrity and quality of the work.



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**END**