# THE CLARK COUNTY, WASHINGTON, DEINSTITUTIONALIZATION OF STATUS OFFENDERS EVALUATION REPORT

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## ABSTRACT

The Vancouver (Clark County, Washington) de-institutionalization program consisted of two major components: the provision of crisis intervention counselling immediately after court intake and the provision of family crisis counselling. These procedures differed from those used in the past primarily in the ability of the court, after DSO, to have a probation officer available for immediate counselling with the youth (and family, when possible) rather than holding the youth in detention awaiting an appointment with a probation officer or DSHS counsellor within a few days.

The evaluation indicates that DSO had a substantial and positive impact on the Clark County juvenile court and on status offenders. The number of youths detained dropped from an average of 56 per month to 37 per month; The number of status offender referrals against whom petitions were filed dropped from 23 per month to 17 per month, and the number institutionalized declined from 1.4 per month to zero after DSO started. The time series and multiple regression analysis indicate that the DSO initiative was directly or indirectly responsible for almost all the change in detention and petitions being filed, but the rate of institutionalization probably would have declined to zero even without the DSO funds.

Analysis of recidivism rates (measures as re-contact with the court for a status or delinquent offense) revealed that the DSO strategy of crisis counselling resulted in a significant difference when the experimental group was compared with the control group and when the entire post-DSO referrals were compared with the 30 months of pre-DSO referrals. These differences were on the magnitude of about three to five percent for up to three months of time "at risk" and increased to eight percent or beyond for four to eight months of time "at risk."

Although DSO had a substantial and positive impact, it should be noted that many status offenders were not eligible (47 percent); many are still detained (48 percent), one-fourth of the youths can be expected to have a subsequent court referral within three months; one-third within six months; and almost 40 percent within eight months.

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## INTRODUCTION

With a $50,000 two-year grant from the Office of Juvenile Justice and Delinquency Prevention (OJJDP), the Vancouver (Clark County), Washington juvenile court began a program to deinstitutionalize status offenders (DSO) in July 1976. The Vancouver project was the smallest of the national DSO grants and most of the funds were used for direct service delivery. The major components of the project were crisis intervention counseling provided by two newly-hired juvenile court probation officers and family crisis intervention counseling provided by volunteers trained and directed by the project probation officers. The purposes of the program were to:

1. Reduce the penetration of status offenders into the juvenile court system by reducing the number detained, reducing commitments for incarceration to the Department of Social and Health Services, and reducing the number of status offenders on whom formal petitions were filed; and

2. Reduce the recidivism of status offenders.

## DESCRIPTION OF THE PROJECT

The Vancouver DSO program is operated as a part of the probation unit of the juvenile court. Prior to implementing the deinstitutionalization project, the common practice was for status offenders to be held in detention before being seen by a probation officer, and they were sometimes held in detention

for several days after that time awaiting a counselor from the Department of Social and Health Services (DSHS). The two additional probation officers hired with the federal funds counsel status offenders immediately after court intake in an effort to return them to their homes or to find community-based alternatives to detention. A second component of the DSO program in Vancouver is the development of a group of volunteers who, under the guidance of a probation officer, can provide family crisis counseling. The goal of this portion of the DSO program is to return youths to their homes, thereby making available the extremely limited community bedspace to other youths who are unwilling or unable to return to their homes. In conjunction with DSHS, the Vancouver juvenile court has been attempting to increase the availability of community-based alternatives for status offenders who cannot (or will not) return home. This effort has resulted in twelve additional overnight places reserved for status offenders. The total number of places (other than detention) for short-term care of all juveniles is 78; twelve of these are reserved exclusively for status offenders.

At the time the DSO counselors were hired, the two probation officers who had previously been responsible for status offenders retained their responsibilities by providing counseling to status offenders who were not eligible for the DSO project and those who were in the control group. Thus, the open case load for status offender probation officers was reduced simultaneously with the implementation of the project.

During the time that the DSO project was operative in Clark County, the juvenile court system had several key decision points that could result in the case being continued on through court processing or terminated. A flow chart of the court procedures, a description of who did what, the criteria upon which decisions were based, and an analysis of the number of cases flowing through various parts of the system are contained in Appendix A. In general,

status offenders could be referred to the court from eight different law enforcement agencies, schools, parents, and other jurisdictions. The referrals could be in person (e.g., the youth appears at court intake), or they could be paper referrals. For the personal referrals, the court intake officer conducted an initial screening of the case and, if a probation officer was available to talk with the youth and/or family, the case would be referred immediately to probation. The probation officer, in this situation, could determine whether a detention hearing would be needed and had three options for disposal of the case: (1) informal adjustment whereby the youth and probation officer reached agreement concerning the youth's activities (this normally involved no followup or only very limited followup by the probation officer); (2) informal probation whereby the parents, youth, and probation officer reached agreement on the youth's activities (this normally was accompanied by limited followup); and (3) the filing of a status offense petition against the youth, which would be followed by a fact-finding and disposition hearing.

In the event that no probation officer was available to talk with the youth at intake, the intake officer would determine whether the youth should be detained or not and, if the youth was not to be detained, he or she was asked to return the next day (or within a few days) to talk with a probation officer. If the youth was detained, an appointment with a probation officer would be made for the next day.

Paper referrals to the court on status offenders were sent directly to the head of the status offender probation unit. The probation officer would then attempt to contact the youth and family involved in the offense. If contact was made, an appointment would be set for the youth and family to discuss the situation with a probation officer. Not all paper referrals, of course, resulted in contact with anyone at the court.

With the implementation of the crisis intervention DSO project, it was expected that the number of status offenders detained would decline because of the fact that the DSO counselors would be on duty for weekends and for longer hours during the week (8:00 AM through 11:00 PM) rather than the normal daytime shift, and because of their efforts to be available for immediate counseling of the youth and family rather than having their calendars full of prescheduled appointments. The crisis intervention counseling, family counseling, and decline in detention were expected to reduce the need to file petitions against the youths because they expected to be able to resolve a larger proportion of the disputes, enabling the youths to return home or to an acceptable community alternative.

Incarceration in Clark County was not, technically, done by the juvenile court. Rather, the court could commit status offenders to the Department of Social and Health Services (DSHS), with the stipulation that the youth needed foster care or with the stipulation that the youth might need to be institutionalized.

The reduction in recidivism of status offenders was expected to result from the reduced penetration of the youths into the system and/or from the nature of the counseling. Underlying the expectation that reduced penetration would in turn reduce recidivism is the idea that youths who come into contact with the juvenile court and who remain in contact with it for a longer period of time are labelled by themselves and others as problem youths, which tends to produce more problem behavior in subsequent months.[1] One could argue, from a deterrence perspective, however, that the lack of penalty for running away, curfew violations, truancy, or incorrigible behavior would result in a youth believing that these types of problem behavior would evoke no official penalty and therefore could be continued.

## EVALUATION OF THE CLARK COUNTY DSO PROJECT

The Vancouver project was included in the national evaluation of DSO projects funded by the National Institute of Juvenile Justice and Delinquency Prevention (NIJJDP) and conducted by the University of Southern California. The Institute of Policy Analysis was separately funded, also from NIJJDP, for the purposes of (1) implementing the USC evaluation in Vancouver, (2) overseeing the collection of data required for it, and (3) conducting a separate local evaluation of the project. Because the national evaluation focuses on comparing the effectiveness of different types of deinstitutionalization projects, the local evaluation needed to concentrate on the effects of the DSO project within the Clark County juvenile court and on the clients of that program. The two key questions originally proposed for the local evaluation were:

1. To what extent did the DSO project reduce the penetration of status offenders into the juvenile justice system? This includes a reduction in institutionalization, detention, and petitions filed on status offenders.

2. To what extent did the DSO project reduce the recidivism of status offenders, as measured by subsequent court contacts?

### Evaluation Design

The local evaluation was originally planned so that propositions concerning effects of the project on clients could be tested with an experimental design involving random assignment of eligible status offenders into a DSO experimental group and a non-DSO control group. Propositions concerning the impact of the project on the juvenile court processing of cases (such as detention rates, incarceration rates, and so on) were to be tested with an interrupted time series design.

It became clear shortly after data began to be received that there were

problems with the random assignment procedure.[2] One problem was that 15 of the control group youths who later recidivated were assigned incorrectly to the experimental group for the recidivist offense and three of the experimental group youths who recidivated were placed in the control group upon their return to the court. There is no good solution to this problem. The procedure that seems to introduce the least bias in the data is to count the youths in the control group for the time period prior to when they entered the experimental group and to count them in the latter thereafter. (There were no triple assignments.) The same would be done for the experimental group switches.

The group that "switched" should not be eliminated from the analysis. If that were done, the control group would lose 15 cases (12 percent of the total) and would lose a substantial proportion of its cases that recidivated, thus reducing the overall recidivism rate for the control group. Because there were only three switches from experimental to control, the experimental group would lose a much smaller proportion of its recidivators than would the control group. It should be noted that we are not using a pre-post change score to measure recidivism and then comparing the change across experimental and control groups. Although this method commonly is employed in recidivism studies, it introduces more error into the analysis than is present when making a direct comparison of subsequent contacts across the two groups. Change scores, calculated for each individual, contain twice the error of the post score only or the pre score only.[3] This, in turn, makes the measure less reliable which depresses the value of the significance test and makes it more difficult to find statistically significant differences.

The second problem with the random assignment is that there are clear differences between the control and experimental groups in terms of sex of

the offender (see Table 1). Furthermore, there are differences that approach statistical significance in terms of the total number of prior status offenses and the total number of any type of prior offense (Table 1). These differences are of particular concern if the variables on which the groups differ are related to detention, petitions, or recidivism rates of the youths and if the bias consistently favors either the experimental or the control group. There were no differences between the groups in terms of family income, parental stability, age, total prior delinquent offenses, or race.

As a result of these differences between the control and experimental groups, the analysis of data cannot be a straightforward comparison of the two groups, but instead will involve the use of a multiple regression quasi-experimental design in an effort to winnow out the pre-program differences that could influence the recidivism rates of the two groups.

A quasi-experimental design, as we define the term, refers to an analysis in which one develops a reliable estimate of what the expected value of the dependent variable for the experimental (treatment) group would have been if the treatment had not been received. In experimental designs, the randomization process insures (within sampling error) that the expected value of recidivism for the treatment group is equivalent to the observed recidivism rate of the control group. In quasi-experimental designs, some alternative method has to be developed to generate this expected value.

One procedure that has been used is a multiple regression prediction model specified in such a way that the effect of the DSO treatment should be ascertainable independent of (1) socio-economic variables that differed across the experimental and control groups, (2) number of priors, and (3) general linear trend in the pre through post time period. For some parts of the analysis, the model has been developed so that the impact

TABLE 1

CHARACTERISTICS OF EXPERIMENTAL & CONTROL GROUP STATUS OFFENDERS[1]

| Characteristic | Exper | Contr | F | Sig |
|---|---|---|---|---|
| N~ | 420 | 127 | | |
| SEX | | | 16 | .001 |
| Male | 37% | 24% | | |
| Female | 63% | 76% | | |
| RACE | | | .27 | .60 |
| White | 99% | 99% | | |
| Non-white | 1% | 1% | | |
| LIVING SITUATION | | | .43 | .62 |
| both nat. parents | 39% | 40% | | |
| 2 parents one step | 21% | 21% | | |
| 1 parent | 34% | 34% | | |
| other[2] | 5% | 6% | | |
| AGE | 14.57 | 14.65 | .247 | .62 |
| PRIOR STATUS OFFENSES | | | 2.38 | .12 |
| none | 71% | 69% | | |
| one | 20% | 15% | | |
| two | 6% | 8% | | |
| three+ | 3% | 8% | | |

| Characteristic | Exper | Contr | F | sig |
|---|---|---|---|---|
| N~ | 420 | 127 | | |
| PRIOR DELINQUENT OFFENSES | | | .22 | .64 |
| none | 81% | 80% | | |
| one | 17% | 11% | | |
| two | 2% | 5% | | |
| three+ | .3% | .8% | | |
| PRIOR OFFENSES [DELINQ OR STATUS) | | | 2.6 | .11 |
| none | 57% | 57% | | |
| one | 28% | 20% | | |
| two | 10% | 14% | | |
| three+ | 5% | 9% | | |
| INCOME | | | .06 | .80 |

[1]The analysis was conducted on raw (computerized) data provided to IPA by the Clark County juvenile court. The time period is July 1976 through June 1977. The designation of a youth as experimental or control was done from data collected by IPA for the USC national evaluation and this code was added to the court data.

of the intervention on the entire population of status offenders (not just those in the experimental group) can be measured.

The interrupted time series design is based on an analysis of 42 months of aggregated data (January 1974 through June 1977) in order to identify changes in detention rates and petitions which might be attributed to the implementation of the DSO program. Twelve months of post-program data are included in the evaluation.

There are two major approaches one can take to interrupted time series analysis: (1) A trend-based "deterministic" approach using analysis of covariance (ANCOVA), or (2) the ARIMA (auto-regressive integrated moving average) approach which does not assume a deterministic trend but instead assumes that the value of an observation at any point in time is based on one or more prior observations.[4] Because the ARIMA approach requires a maximum likelihood estimation procedure rather than ordinary least squares, we utilized the analysis of covariance model with successive least squares approximations to correct for auto-correlation. This approximation is needed if the observations are not independent but instead are auto-correlated across time. When auto-correlation is present, the tests of significance generated by the ANCOVA model will be inflated. If the usual tests are employed when the observations are not independent, the researcher could conclude that a statistically significant change has occurred when, in fact, it has not. The Durbin-Watson test for auto-correlation, which was used in our analysis, estimates whether the auto-correlation is significant. If the residuals from the equation contained auto-correlation, another analysis was conducted using a procedure in which an estimate is made of the auto-regressive function and this is statistically controlled in the subsequent analysis. (see Appendix B)

The ANCOVA approach to interrupted time series involves the testing of

several propositions concerning whether (and how) the program altered the pre-program trends in detention, petitions, or recidivism. Basically, the idea is to measure the pattern during the pre-program time period and to compare this with the pattern in the post time period. The types of changes of interest include:

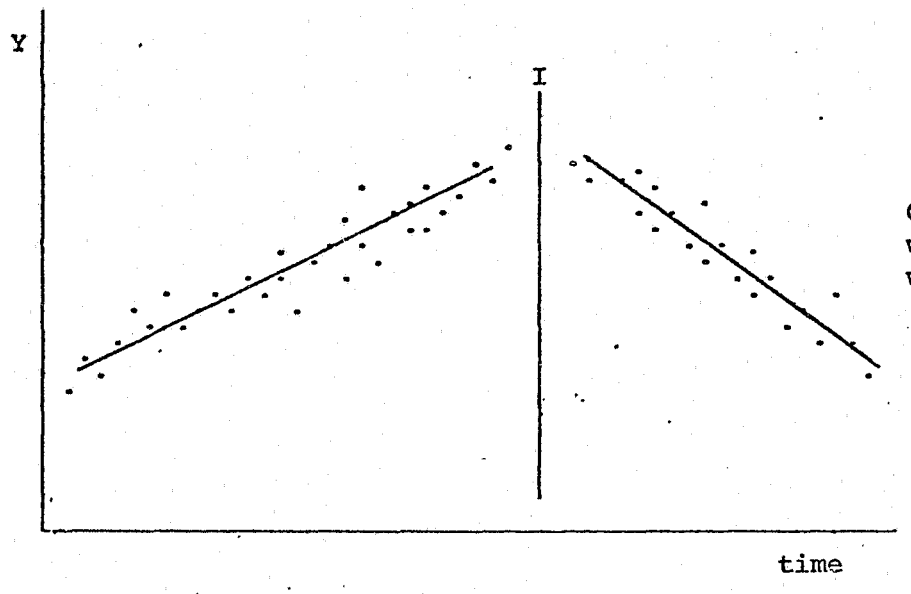
1. A change in the trend (slope) of the observations.
2. A change in the level (intercept) of the series.

If the change is similar to that pictured in Figure 1 and if the significance test shows the change to be statistically significant, then the implication is that the intervention of the program altered the trend that had been occurring during the pre-program time period. If the change is similar to that pictured in Figure 2 and if the tests indicate statistical significance, then the implication is that the intervention altered the level (intercept) of the series, but did not change the basic upward trend.

Data and Measurement

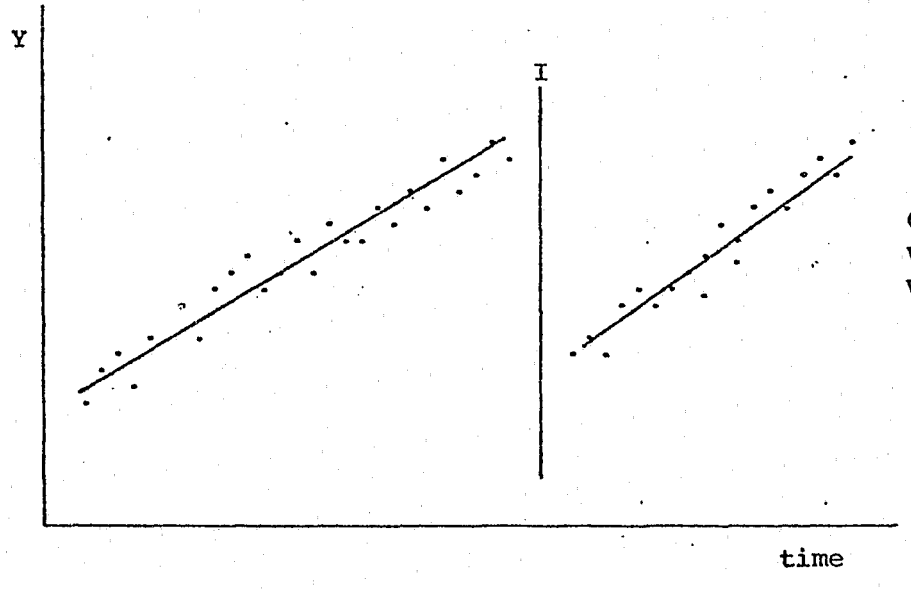
Data upon which the analysis rests were obtained from the Clark County juvenile court. Most of the data are from the computerized, case-by-case information provided to IPA by the court on magnetic tapes. Some of the information was collected as part of the national evaluation. This information was computerized by IPA and incorporated into the juvenile court data file. All of the tables and charts were developed from analysis done by IPA on the raw court data. The case-by-case data obtained from the court begins with 1972 and ends in June 1977. The 1972 data contained several problems that were not present in later years and were not used in most of the analysis. Because much of the analysis requires knowledge of prior offenses, we began with the 1974 data (providing at least 12 months of prior risk time for all cases).

FIGURE 1




Change in trend when program was implemented (I)

FIGURE 2




Change in level when the program was implemented (I)

The major dependent variables in the analysis are detention, petitions, and recidivism. Detention was coded on the court statistical forms as either YES or NO. There is no indication of how long a youth is detained. The definition of detention used by court personnel is that the youth is booked into the juvenile hall. This generally means that the youth will spend the night at juvenile hall. If a juvenile is to spend only a few daytime hours in detention (awaiting an appointment with a probation officer, for example), s/he would not be counted as having been detained.

Petitions are filed on status offenders at the discretion of the probation officer or the court. If a petition is filed, a fact-finding hearing always is held and this hearing is followed by a dispositional hearing.

Recidivism is defined and measured in this report as a subsequent referral to the juvenile court. In much of the analysis a three or six month followup period is used. Although a longer followup period would be preferred, this would eliminate too many of the control and experimental cases, since data on only 12 months of post-DSO status offenders were available. Furthermore, much of the problem in short followup is that the proportion recidivating is so low that it is difficult to distinguish between chance variation and "true" differences between groups. In Vancouver, however, the proportion recidivating within three months generally is 30 percent or higher.

The independent variables of particular interest are the differences in treatment received by the experimental and the control groups, as well as differences in treatment of all status offenders between the pre and post time periods. As noted previously, during the pre-program time periods status offenders were handled mainly by two probation officers in the juvenile court who continued to provide services (to control group and

ineligible youths) after the program began. Two newly-hired counselors were assigned all the experimental youths.

Although the major question is whether the experimental DSO strategy (crisis intervention counseling and family therapy) reduced penetration into the system and reduced recidivism, there were simultaneous changes in case load and other differences among the probation officers that make it difficult to determine whether any apparent effects of the project are attributable to the strategy being used rather than to other factors. The case load in the post period differed between the experimental and control groups (30 to 56, respectively). Differences between experimental and control also could be attributed to differences in personal characteristics of the probation officers. The experimental and control probation officers differed in terms of age, experience, and sex. The two experimental officers were much younger than the officers handling the control (and ineligible) cases, had far less experience, and one of the two was a man whereas both of the control ineligible counselors were female.

In addition to differences in treatment, there are other independent variables used in the analysis, mainly for the purpose of statistically adjusting for differences attributable to variables other than the treatment. These include several soci-economic or demographic characteristics of the clients: age, race, sex, parental status (living with both parents, with one parent, with relatives, in a foster or group home), and source of family income (regular salary, welfare/unemployed, none).

For the interrupted time series analysis, time (measured in months) is included as an independent variable in order to measure trends since January 1974. Substantively, the trend represents any type of change attributable to variables that are not measured. The purpose of the analysis is to determine whether the intervention of the program altered the trend

that was apparent in the pre-program time period and/or whether it altered the level of the series.

## OVERVIEW OF PROGRAM ACTIVITIES & CLIENT CHARACTERISTICS

From July 1976 through June 1977 there were 479 status offenders eligible for the deinstitutionalization program and 433 other status offenders who were not eligible. Table 2 shows the monthly totals of status offenders in the pre-program group, the randomly selected experimental program, the randomly selected control group, and the ineligible group. During the post DSO time period, the juvenile court handled an average of 76 status offenders per month, compared with 74 per month during the January 1974 through June 1976 pre-program phase.

The major questions of interest in this section are:

1. What are the characteristics of the status offenders who were ineligible for the program and why were they ineligible?

2. Has there been any change in the characteristics of status offenders or delinquent offenders from the pre to post time periods?

3. Has there been any increase in the total number of status offenders that could be attributed to a "widening of the net" produced directly or indirectly by the DSO project?

### Eligible and Ineligible Status Offenders

All youths admitted to court intake charged with incorrigibility, runaway, truancy, or curfew violation who had three or fewer prior offenses and who were within the jurisdiction of the Clark County juvenile court were to be eligible for the DSO program. During the time that data were collected from the court (one year after DSO was started), 46.5 percent of

TABLE 2

MONTHLY TOTALS, STATUS OFFENDERS, CLARK COUNTY JUVENILE COURT[1]

| 1974 | | 1975 | | 1976 | | | | 1977 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MONTH | #SOs | MONTH | #SOs | MONTH | TOTAL SOs | Inelig | Exper | Control | MONTH | TOTAL SOs | Inelig | Exper | Control |
| JAN | 95 | JAN | 94 | JAN | 76 | | | | JAN | 77 | 26 | 30 | 21 |
| FEB | 65 | FEB | 78 | FEB | 71 | | | | FEB[3] | 109 | 28 | 61 | 20 |
| MARCH | 95 | MARCH | 76 | MARCH | 77 | | | | MARCH | 78 | 25 | 46 | 7 |
| APRIL | 80 | APRIL | 78 | APRIL | 84 | | | | APRIL | 78 | 40 | 34 | 4 |
| MAY | 62 | MAY | 89 | MAY | 96 | | | | MAY | 51 | 18 | 33 | 0 |
| JUNE | 68 | JUNE | 78 | JUNE | 65 | | | | JUNE | 54 | 22 | 32 | 0 |
| JULY | 73 | JULY | 79 | JULY[2] | 83 | 63 | 10 | 10 | | | | | |
| AUG | 82 | AUG | 62 | AUG | 79 | 59 | 14 | 6 | | | | | |
| SEPT | 85 | SEPT | 68 | SEPT | 99 | 65 | 23 | 11 | | | | | |
| OCT | 105 | OCT | 93 | OCT | 88 | 39 | 29 | 21 | | | | | |
| NOV | 63 | NOV | 68 | NOV | 67 | 29 | 29 | 10 | | | | | |
| DEC | 58 | DEC | 64 | DEC | 49 | 19 | 14 | 16 | | | | | |
| TOTAL | 931 | TOTAL | 927 | TOTAL | 934 | 274 | 119 | 74 | TOTAL | 447 | 159 | 236 | 52 |
| AVG | 77.6 | AVG | 77.3 | AVG | 77.8 | 45.7 | 19.8 | 12.3 | AVG | 74.5 | 26.5 | 39.3 | - |

[1]Status offenses include runaways, incorrigibles (ungovernables), curfew violations, and truants. Dependency A cases and review hearings are excluded from the counts.

[2]Program startup occurred in July 1976.

[3]Random assignment ended in mid-February and, thereafter, all new cases were in the experimental group.

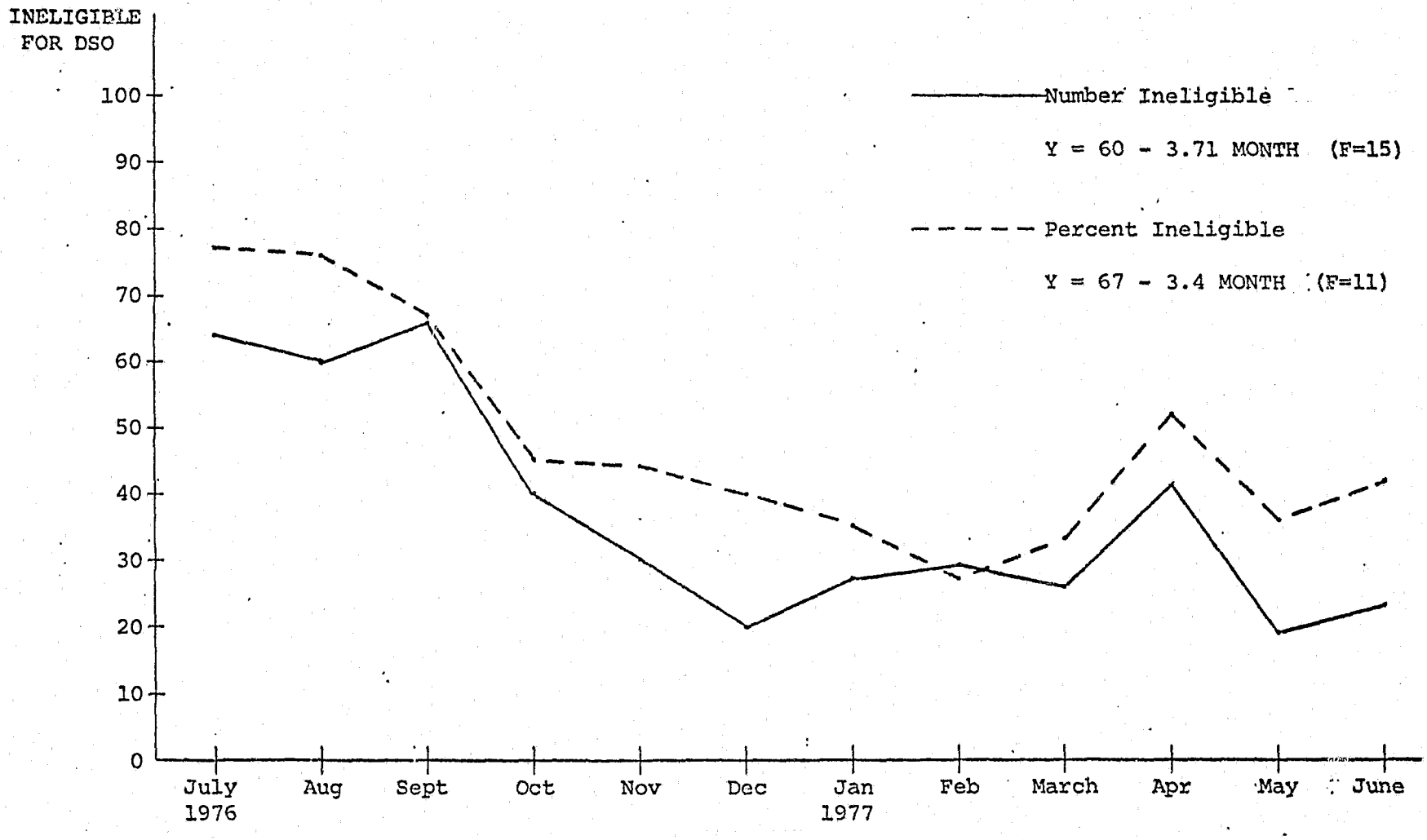
the status offenders admitted to intake were not eligible for DSO. Of the 433 post-program youths identified (from the court computerized data) as ineligible, 94 had four or more prior offenses and 77 were being held for another jurisdiction. This leaves a total of 154 presumably eligible youths who were considered ineligible (17 percent of the total status offenders). Of these, some may have had an offense prior to January 1972 which would have increased their number of priors to four or more even though the data available since 1972 indicated three or fewer priors. Some of the ineligibles could have been paper referrals with whom no contact was ever made and, since they did not show up in either experimental or control group data, they would have been counted as ineligible. Still others might have been open case referrals. If so, a new statistical sheet could have been filled out (making it appear that the youth was eligible for referrals to experimental or control conditions), but, in fact, the youth was already under the jurisdiction of some probation officer other than those handling the experimental or control cases.

Analysis of variance tests indicate that the ineligibles were more likely than the eligibles (experimental and control) to be in an unstable living situation ($p=.002$), to have had one or more prior status offenses ($p=.02$), to have had one or more prior delinquent offenses ($p=.001$), and were more likely to be male than were the eligibles ($p=.005$).

Both the number and proportion of status offenders considered ineligible for DSO declined substantially during the post-DSO months (see Figure 3). The solid line shows that the number of status offense referrals considered ineligible was near 60 or higher for the first three months and then dropped to less than 30 within five months of program implementation and tended to stay below 30 for most of the remaining months. The proportion judged to be ineligible also declined. These data suggest that as the court gained

FIGURE 3

NUMBER & PERCENTAGE OF STATUS OFFENDERS CONSIDERED INELIGIBLE FOR DSO DURING THE POST-DSO TIME PERIOD




[1]The equation for number ineligible indicates a statistically significant (beyond .05) decline of 3.7 percent per month. The equation for percentage ineligible shows a decline of 3.4 percent per month.

confidence in the DSO approach, it was inclined to permit more of the status offenders to be included among the eligible group.

Characteristics of Status Offenders

One of the potential side effects of projects such as the deinstitutionalization of status offenders would be a shift in the classification of offenses (either from status to delinquent, in order to avoid assigning youths to the project, or from delinquent to status, in order to assign more youths to the project). Another potential side effect could be a shift in the patterns of referral to the court, such that the characteristics of the youths changed. Any changes of these types could alter the characteristics of youths considered to be status offenders and, if so, could alter the pattern of detention, petition filing, and/or recidivism. In order to examine whether these types of changes occurred as indirect effects of the DSO project, the characteristics of status offenders during the pre and post time periods were examined. To ascertain whether there is any evidence of shifts in classification from status to delinquent or vice versa, the characteristics of delinquents also were examined for the pre and post time periods.

The data in Table 3, for status offenders, show that there were very few changes in characteristics of the youths between the pre and post time periods. Status offenders are more likely to have been female than male in both time periods; are predominately white (as is the population of Clark County); most attend school regularly; and most are slightly less than 15 years of age. Less than half of the status offenders live with both natural parents and the proportion in this category declined between the pre and post time periods.

Characteristics of delinquent offenders did not change much either

TABLE 3

CHARACTERISTICS OF JUVENILE OFFENDERS, PRE AND POST[1]

| Variable | Status Offenders | | Delinquent Offenders | |
|---|---|---|---|---|
| | Pre Program | Post Program | Pre Program | Post Program |
| | N~2,328 | N~914 | N~5,259 | N~2,602 |
| TYPE OF OFFENSE | | | | |
| Curfew | 8% | 8% | | |
| Runaway | 47% | 48% | | |
| Incorrigible | 35% | 30% | | |
| Truant | 5% | 10% | | |
| Other | 5% | 4% | | |
| SEX | | | | |
| Male | 42% | 43% | 83% | 79% |
| Female | 58% | 57% | 17% | 21% |
| RACE | | | | |
| White | 99% | 99% | 99% | 99% |
| Non-white | 1% | 1% | 1% | 1% |
| SCHOOL STATUS | | | | |
| Regular Attendance | 86% | 84% | 88% | 89% |
| Dropped Out | 9% | 9% | 9% | 9% |
| Expelled | 5% | 7% | 3% | 2% |
| AGE, AVERAGE | 14.7 | 14.6 | 15 | 14.9 |
| LIVING SITUATION | | | | |
| Both Natural Parents | 43% | 38% | 61% | 57% |
| Two parents, one step | 15% | 20% | 10% | 11% |
| One Parent | 27% | 29% | 22% | 24% |
| Relatives | 3% | 2% | 2% | 2% |
| Foster Home | 5% | 4% | 1% | 1% |
| Group Home or Institution | 8% | 7% | 4% | 5% |

CONTINUED ON NEXT PAGE

TABLE 3 (continued)

CHARACTERISTICS OF JUVENILE OFFENDERS, PRE AND POST

| Variable | Status Offenders | | Delinquent Offenders | |
|---|---|---|---|---|
| | Pre Program | Post Program | Pre Program | Post Program |
| PRIOR OFFENSES (fixed risk period) | | | | |
| No prior delinquent offenses in last 12 mos | 74% | 73% | 65% | 58% |
| One or more delinquent offenses in past 12 mos | 21% | 20@ | 28% | 32% |
| No prior status offenses in past 12 mos | 59% | 65% | 85% | 82% |
| One or more status offenses in past 12 mos | 20% | 16% | 11% | 10% |
| PRIOR OFFENSES (variable risk period) | | | | |
| Average months at risk since January 1972 | 40 | 60 | 40 | 60 |
| One or more delinquent offenses since 1972, but none in past 12 mos | 6% | 7% | 7% | 10% |
| One or more status offenses since 1972, but none in past 12 mos | 4% | 4% | 4% | 8% |

[1]The analysis was conducted on raw (computerized) data provided to IPA by the Clark County juvenile court. The pre-program time period is from January 1974 through June 1976. The post-program time period is from July 1976 through June 1977.

from pre to post. It should be noted, however, that a greater proportion of the delinquent offenders in the post time period were females than in the pre-program period and, as with status offenders, there was a slight drop in the proportion who live with both natural parents.

A time series analysis was conducted on the characteristics that changed (sex of delinquents and proportion of both status offenders and delinquents living with both natural parents). The results show that neither change occurred at the time the project was implemented, but instead represented gradual shifts throughout the 42 months. Thus it appears that there was no change in the characteristics of status offenders associated with implementation of the DSO project which would confound interpretations of pre-post changes in detention, petitions, or recidivism.

A method of examining whether there were shifts in classification or referral that accompanied the implementation of the program is to examine the proportion of all juvenile referrals who are status offenders and who are delinquents. If a shift in classification occurred from status offender to delinquent, one would expect the proportion of all referrals classified as delinquent to increase at the time the project was implemented or shortly thereafter. If a shift occurred in the other direction (delinquency to status offender classification), one would expect the proportion of all referrals who are status offenders to rise as a function of program implemention.

The data show that there was a steady decline throughout the entire time period in the proportion of referrals who were classified as status offenders, but there was no shift in the trend or level of the series that can be attributed to implementation of the project. The equation [Y=.35 - .0024 MONTH] means that the best prediction of the proportion of referrals who are status offenders would begin in January 1974 with 35

percent as status offenders and decline each month by slightly less than one-fourth of one percent. The DSO intervention in July 1976 did not alter this trend, nor did it change the level of the pre-program percentage.

The third question posed at the beginning of this section was whether the DSO project had the effect of "widening the net" and thereby bringing into the system more status offenders than before. This phenomenon has been observed with certain types of diversion programs. In the effort to reduce penetration into the system or to avoid incarceration of offenders, some diversion projects have inadvertently attracted even more juveniles into the system. Widening the net could be produced by any one of several organizational factors:

1. In communities that have had a high level of unmet needs for youth services available for status offenders, the presence of a less severe juvenile justice response to the offenses could result in increased referrals by parents, relatives, schools, or the youths themselves in an effort to obtain the services of the court for resolution of conflicts.

2. In communities where the police traditionally have served as "crisis intervention counselors," the introduction of this service by the court could increase the proportion of status offense cases referred by the police to the court rather than handled by the officer without a court referral.

3. If juvenile court personnel perceive that the introduction of the project within the court would reduce the case load of probation officers, there could be an incentive to increase the number of status offenders in order to provide sufficient work to justify the positions of the new and old probation officers.

The DSO project in Clark County is a part of the probation section of

the juvenile court and it is reasonable to believe that this organizational arrangement is less likely to "widen the net" than one in which the project is completely separate from the court. Nevertheless, a test was conducted to determine whether the number of status offenders increased when the project was implemented or whether the project altered the pre-program trend in number of status offender referrals.

As shown in Figure 4, the number of status offender referrals to the court shows no obvious or statistically significant trend between January 1974 and June 1977. Furthermore, the implementation of the project clearly did not have the effect of increasing the number of status offenders. The graph shows a slight decline in status offenders, especially in the later months, but these differences are not statistically significant at the .05 level based on an F test.

Discussion

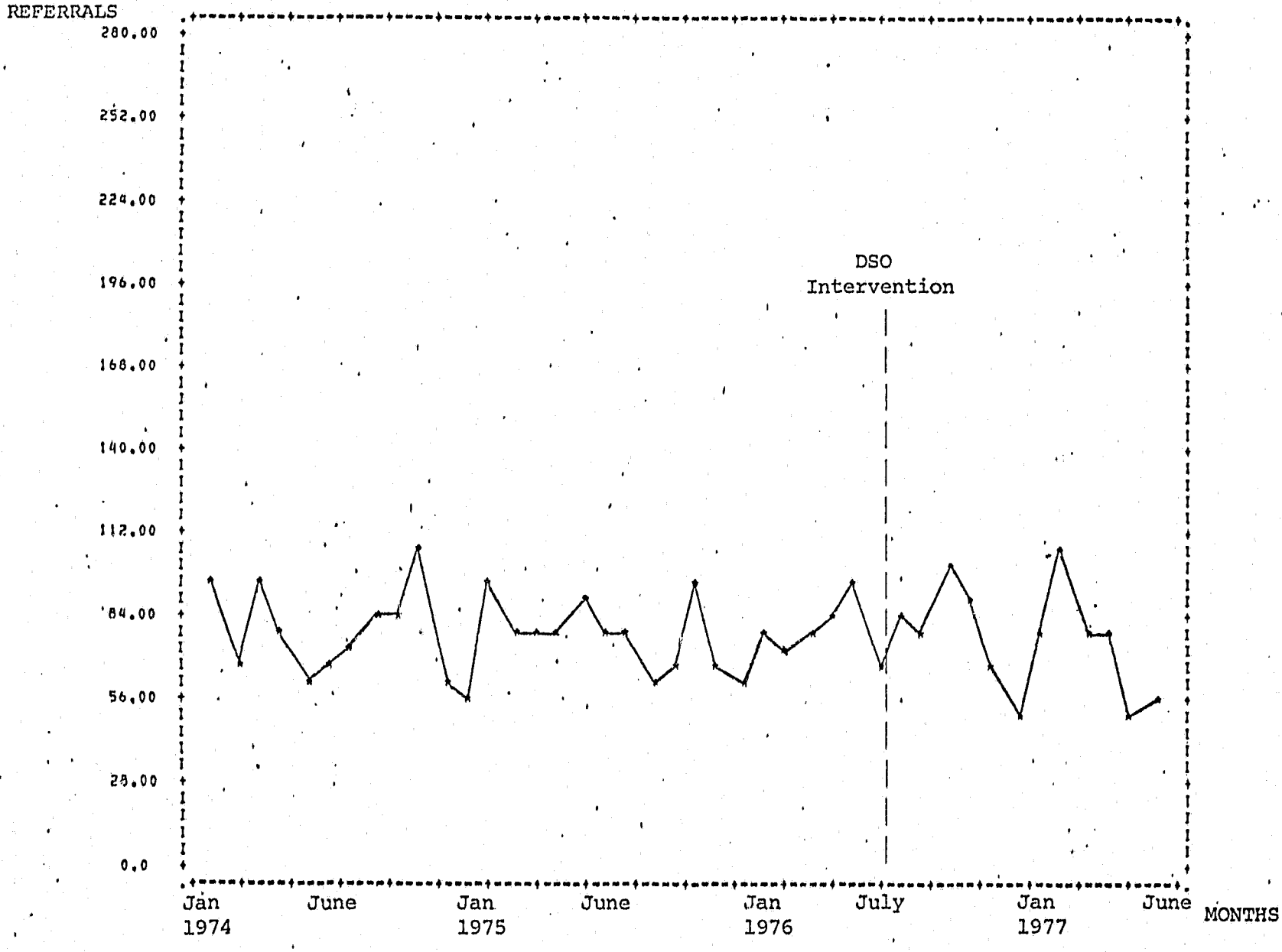
The major conclusions from this section are:

1. A considerable number (and proportion) of status offender referrals to the juvenile court were not eligible for the deinstitutionalization program even though the criteria for eligibility do not seem to be particularly restrictive. Of those referred to the court for status offenses, 47 percent were not eligible. Eliminating those who had four or more offenses or were from places other than Clark County (The official criteria of ineligibility), there were still 154 youths (17 percent of the total status offenders) who were "ineligible" even though they apparently met the technical criteria.

2. The number and proportion of youths considered ineligible declined steadily during the first 12 months of project operation, indicating that the court may have gained confidence in the operation of the project and permitted more of the status offenders to be eligible for the program.

FIGURE 4

NUMBER OF STATUS OFFENDER REFERRALS TO VANCOUVER JUVENILE COURT BY MONTH[1]




[1]The results indicate that DSO did not increase the number of status offender referrals to the court (see Appendix B for the full equation).

4. There was no evidence of any kind that the DSO project had the effect of "widening the net" to bring more status offenders into the juvenile justice system.

5. There was no evidence of any kind that shifts in classification either from delinquent to status offenses or vice versa occurred as a result of the project.

## IMPACT OF THE DSO PROJECT ON INCARCERATION OF STATUS OFFENDERS

Clark County court records show that 41 of the 2,326 status offenders (1.76 percent) appearing at court intake between January 1974 and June 1976 were institutionalized by the Department of Social and Health Services (DSHS) (see Table 4). The data received from DSHS records show that 30 status offenders from Clark County were institutionalized during this period of time. The court records show that in the post DSO time period, none of the 914 status offenders were institutionalized by DSHS, whereas DSHS records indicate that two status offenders from Clark County were institutionalized.

The change in proportion being sent to institutions is statistically significant beyond the .05 level regardless of which data are used. It should be noted, however, that the court had not generally followed a practice of incarcerating status offenders before the project intervention and the decline might have occurred anyway. This possibility is given some credence by the fact that court records show no incarcerations for the status offenders in the control, ineligible, or experimental groups during the post DSO time period.

It does not appear, however, that there was any general change in court policy concerning incarceration that extended to all juvenile

TABLE 4

PROPORTION OF STATUS & DELINQUENT OFFENDERS

INSTITUTIONALIZED, PRE & POST[1]

| | Number Institutionalized | Total Number | Percent Institutionalized | Average Per Month | Z Value (Test of Proportions) |
|---|---|---|---|---|---|
| COURT DATA ON STATUS OFFENDERS | | | | | |
| Pre-DSO | 41 | 2,327 | 1.76 | 1.4 | 4.03 |
| Post-DSO | 0 | 912 | 0 | 0 | |
| DSHS RECORDS ON STATUS OFFENDERS | | | | | |
| Pre-DSO | 30 | 2,327 | 1.29 | 1.0 | 3.18 |
| Post-DSO | 2 | 912 | .002 | .16 | |
| COURT DATA ON DELINQUENTS | | | | | |
| Pre-DSO | 77 | 5,259 | 1.46 | 2.6 | 2.26 |
| Post-DSO | 56 | 2,595 | 2.16 | 4.7 | |

[1]The juvenile court data are from the computerized files. The DSHS information was provided to IPA in tabular form by DSHS personnel. The pre-program time period covered 30 months (January 1974 through June 1976) and the post-program time period of 12 months begins with July 1976 and continues through June 1977.

offenders. As shown in Table 4, the proportion of delinquent youths institutionalized increased between the pre and post time periods.

Because of the small number of cases institutionalized per month, it is not possible to use interrupted time series analysis to establish pre and post program trends. Thus, the results are somewhat inconclusive. The incarceration of status offenders was reduced to zero or close to zero, but this occurred not only for the experimental DSO youths, but also for the control and ineligible groups. No similar change occurred for delinquent offenders. The most appropriate conclusion is that the court's policy about institutionalizing status offenders changed and the change might have occurred without the DSO project.

## IMPACT OF THE DSO PROJECT ON DETENTION OF STATUS OFFENDERS

A major purpose of the federal DSO initiative was to prevent status offenders from having to spend time in detention and, hence, to reduce the length of their contact with the juvenile justice system.

In order to determine whether the Clark County project reduced the proportion of status offenders in detention, a statistically significant change should occur from the pre to post time periods and this change must be attributable to DSO rather than to other factors which might have produced it. As noted previously, the random assignment procedure was not imeplemented nor adhered to properly and biases were introduced into the control and experimental groups. Thus, straightforward comparisons of these groups in terms of detention proportions cannot be used to draw conclusions about the effectiveness of DSO. Instead, two types of quasi-experimental procedures will be used to judge the evidence about the effect of the project on detention: interrupted time series analysis of proportion detained per month and

a multiple regression prediction technique that will statistically adjust for differences attributable to factors other than the project in order to isolate the independent impact of DSO on detention.

Change in the Pre-Post Detention Patterns

Figures 5 and 6 (and Appendix B) contain the information from the time series analysis of detention. Several observations can be made:

First, the proportion of all status offenders who were detained in juvenile hall increased rapidly from January 1974 to circa July 1975, with the average being approximately 2.6 percent more of the status offenders detained per month (see Figure 5). At this point, a statistically significant change in detention occurred. From July 1975, the proportion detained declined steadily at a rate of about .74 percent of the total status offenders per month. When the DSO project began in July 1976, an additional decline (significant beyond the .05 level) in the proportion detained is observed. (The post DSO data shown in Figure 5 include all status offenders at the court: experimental, control, and ineligible.)

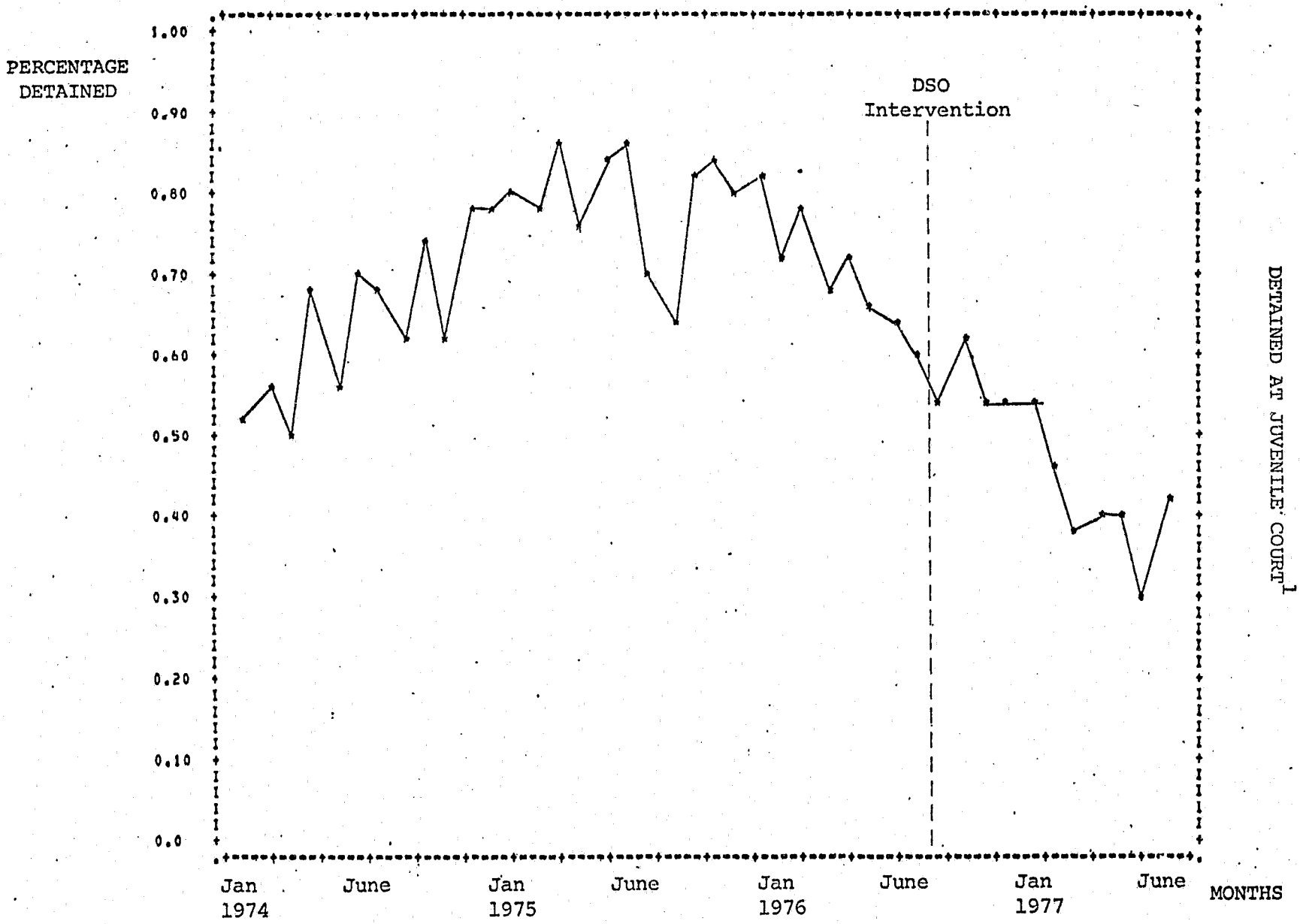
Second, the actual number of status offenders detained shows a similar pattern (see Figure 6). There is an increase from January 1974 through about July 1975, followed by a decrease that apparently is accellerated when the DSO project began in July 1976.

These results suggest the need to identify the event or change around July 1975 that produced the significant downturn in the percent of status offenders being detained.

The change in proportion of total status offender referrals detained could be explained either by a change in the criteria used in making detention decisions or by a change during the summer of 1975 in the characteristics of status offenders such that detention would be appropriate for a smaller proportion of the referrals.

FIGURE 5

PERCENTAGE OF STATUS OFFENDER REFERRALS DETAINED AT JUVENILE COURT[1]




[1]The results (see Appendix B) show that a statistically significant change occurred in the summer of 1975 when the DSO application was approved (locally) and when DSO was implemented in July 1976.

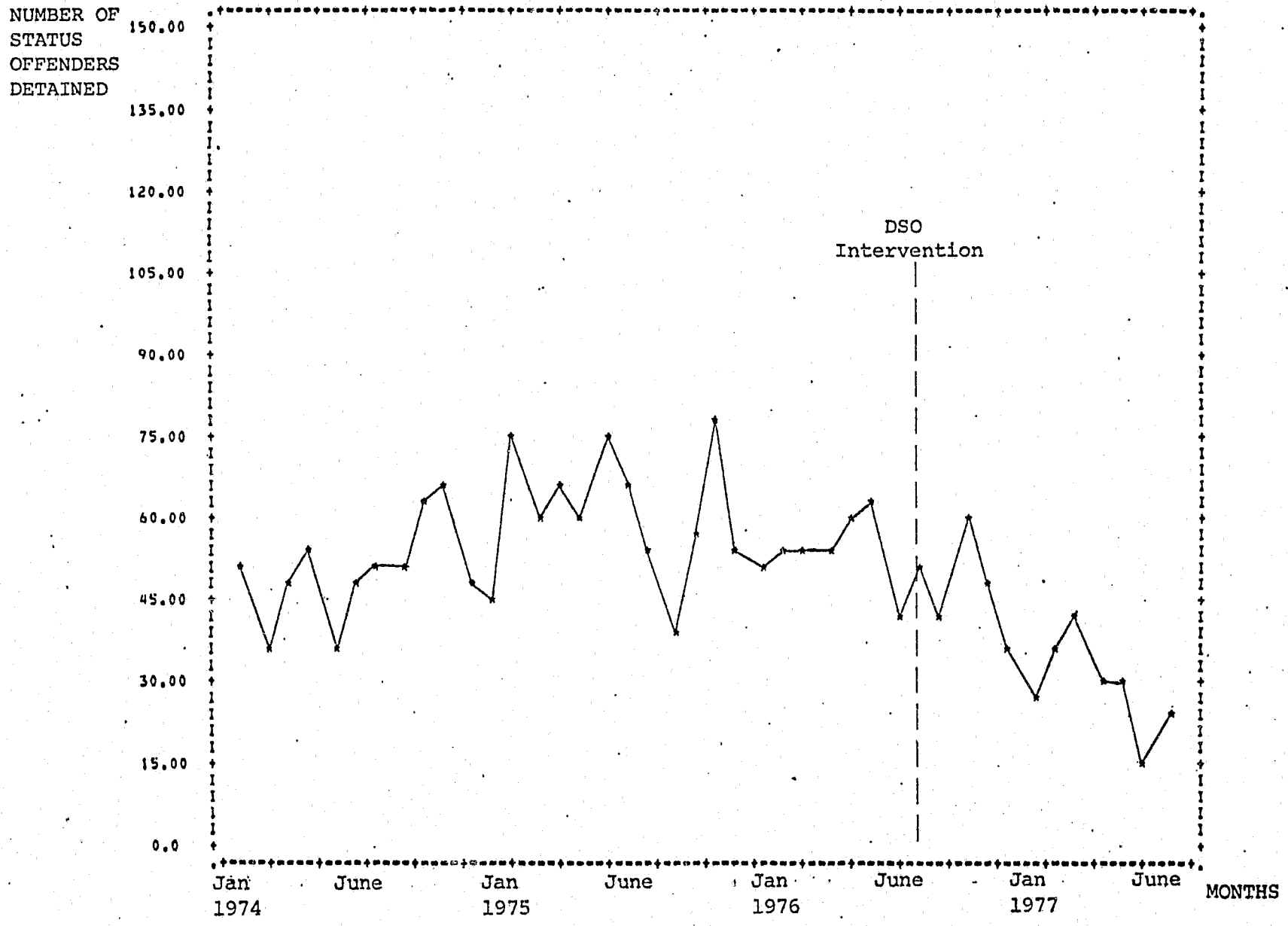



FIGURE 6

NUMBER OF STATUS OFFENDER REFERRALS DETAINED AT JUVENILE COURT[1]

[1]The results (see Appendix B) show that a statistically significant change occurred in the summer of 1975 when the DSO application was approved (locally) and when DSO was implemented in July 1976.

Analysis of status offender characteristics, discussed previously, indicates no change of the type observed in Figures 5 and 6 in any of the social, economic, or demographic characteristics of the status offenders. Cross-offender regressions on status offender referrals indicate that detention decisions are significantly related to parental status, age, month of referral, introduction of the DSO program, sex, the total number of prior status offenses, the total number of prior delinquent offenses, the total number of all types of offenses combined, and the type of offense for which the referral was made. Even so, all these variables together account for only 11 percent of the variance in detention decisions. Therefore, even if there had been changes in the criteria used in making detention decisions (rather than a change in the general policy about detention of status offenders), the shift would not have accounted for the marked downturn in the proportion detained that occurred in the summer of 1975.

It is more likely that some exogenous event produced the mid-summer change in detention proportion during 1975. Information from the Vancouver court is that there was no legislative change in the summer of 1975 that could have had any impact on the court (including House Bill 371). Bob Axlund, court administrator, noted that the application for the DSO grant was being considered in the summer of 1975 by the juvenile judges and key members of the court staff. It was during this time period that key personnel, including the judges, agreed to support an application for funds under the federal DSO initiative. It appears that the most likely explanation for the obvious shift in status offender detention rates that occurred in mid-summer 1975 is that it was produced by the anticipation of participating in the federal initiative. This suggests that when court staff and judges became sensitive to the issues of labelling and the plight of the status offenders, they began immediately to respond with actions that were

desired by the national program itself. In this sense, the OJJDP initiative might have served as a "consciousness raising" experience for those having contact with status offenders.

Comparing Experimental and Control Groups

The next question to be considered is whether the accentuated drop in detention after the DSO intervention in Clark County was attributable to the crisis intervention and multiple impact therapy strategy used as part of the DSO project or whether the shift observed in Figures 5 and 6 after DSO began is attributable to a generalized policy that influenced all probation officers handling status offenders (including the control and ineligible groups).

The data in Table 5 show the pre-program proportion of status offenders detained, along with the proportion detained within the experimental, control, and ineligible groups of the post-DSO time period. As noted previously, direct comparisons should not be made between experimental and control groups because of the fact that these groups differed in terms of number of prior status offenses, total number of priors, and sex. Thus, the apparent differences (28 percent for the experimental group and 54 percent for the control) could have been produced by differences in the characteristics of the youths in the two groups. Nevertheless, the data indicate a sharp difference between experimental and control groups and even more difference between experimental and the ineligibles.

One method of examining whether the experimental strategy produced a reduction in detention is to compare detention proportions within categories of those characteristics of the youths which differed across the

TABLE 5

STATUS OFFENDER DETENTION RATES[1]

| GROUP | Total Number | Number Detained | Percent Detained |
|---|---|---|---|
| STATUS OFFENDERS | | | |
| Pre-DSO | 2,317 | 1,668 | 72% |
| Post-DSO (total) | 914 | 439 | 48% |
| Experimental | 362 | 101 | 28% |
| Control | 127 | 69 | 54% |
| Ineligible | 425 | 268 | 63% |

[1]The analysis is based on the Clark County juvenile court computerized data file provided by the court to IPA. The pre-DSO period is from January 1974 through June 1976. The post-DSO time period is from July 1976 through June 1977.

groups. These data are shown in Table 6. The results indicate that statistically significant differences exist between the control and experimental groups within virtually every category of prior offenses, type of current offense, sex, and living situation.

A multiple regression analysis substantiates the conclusion that the detention rates for experimental youths were lower than for control group cases (Table 7). According to the regression analysis, the experimental group detention rate is about 32 percent below the rate of the control group when the other variables are statistically controlled ($F=45$, $p<.001$).

The question still remains, however, of whether the experimental group produced a significant drop in detention greater than that which would have occurred given the markedly downward trend in detention rates for all status offenders that began in July 1975 (the time when the court decided to apply for the grant). Multiple regression analysis, using both pre and post data, clearly suggests that the experimental group was less likely to be detained than the control group and that the experimental group (not the control group) was responsible for the statistically significant drop that occurred at the time the DSO program began. This decline was greater than the decrease which had been occurring between July 1975 and June 1976. The results of this multiple regression analysis are presented in Table 8.

The negative value of the standardized partial regression coefficient (column two of Table 7) for the experimental group means that youths in this group were less likely to be detained than would have been expected, given the pre-program trend, number of priors, and their socio-economic characteristics. The very small but statistically significant value of the partial standardized regression coefficient for the control group means they were a fraction more likely to be detained when the pre-program trend, priors, and socio-economic characteristics are controlled.

TABLE 6

STATUS OFFENDER DETENTION RATES FOR EXPERIMENTAL, CONTROL & INELIGIBLE GROUPS BY SELECTED CHARACTERISTICS OF THE YOUTHS[1]

| CHARACTERISTICS | PERCENT DETAINED | | | NUMBER OF CASES | | |
|---|---|---|---|---|---|---|
| | Exper | Control | Inelig | Exper | Control | Inelig |
| SEX | | | | | | |
| Male | 32% | 57%* | 64% | 156 | 30 | 204 |
| Female | 25% | 58%* | 62% | 264 | 97 | 221 |
| LIVING SITUATION | | | | | | |
| Both natural parents | 27% | 74%* | 66% | 141 | 49 | 142 |
| Two parents, one step | 22% | 54%* | 59% | 76 | 26 | 76 |
| One parent | 27% | 41%* | 64% | 121 | 42 | 97 |
| Other[2] | 47% | 57%* | 82% | 19 | 7 | 90 |
| TYPE OF OFFENSE | | | | | | |
| Curfew | 27% | 78% | 66% | 11 | 9 | 56 |
| Runaway | 36% | 65%* | 71% | 171 | 51 | 217 |
| Incorrigible | 23% | 57%* | 56% | 130 | 53 | 89 |
| Truant | 0 | 0 | 3% | 44 | 14 | 35 |
| PRIOR OFFENSES | | | | | | |
| No prior delinq. offense in last 12 months | 27% | 56%* | 63% | 296 | 106 | 266 |
| No prior status offense in last 12 months | 25% | 52%* | 61% | 257 | 86 | 248 |
| One delinquency in last 12 mos. | 30% | 56%* | 54% | 40 | 9 | 48 |
| One prior status offense in last 12 months | 34% | 58%* | 63% | 67 | 19 | 51 |

[1]The analysis is based on Clark County computerized data, July 1976 through June 1977. Whether a youth was in the experimental, control, or ineligible group was determined from the data IPA collected for the USC national evaluation and this designation was added to the raw court data file.

[2]"Other" includes relatives, group homes, foster homes, or institutions.

*$p < .05$

TABLE 7

MULTIPLE REGRESSION ANALYSIS

OF DETENTION PROBABILITY FOR EXPERIMENTAL & CONTROL GROUPS[1]

No. of cases = 465

| INDEPENDENT VARIABLE | DEPENDENT VARIABLE: DETENTION (NO=0; YES=1) Zero Order Correlation | B | Beta | F Value | Prob |
|---|---|---|---|---|---|
| TREATMENT<br>experimental=1<br>control=0 | -.30 | -.32 | -.29 | 45 | .001 |
| NUMBER OF PRIOR STATUS OFFENSES | .15 | .08 | .15 | 11.6 | .001 |
| NUMBER OF PRIOR DELINQUENT OFFENSES | .09 | .08 | .09 | 4.0 | .01 |
| (constant) | | .54 | | | |
| $R^2$ = .12 | | | | | |

[1]Other variables examined but too insignificant to include in the equation were age, sex, living situation, school status, and income. The zero-order correlation shows the relationship of each variable on the left with detention when no other variables are controlled. B is the unstandardized partial (e.g., all other variables in the equation are controlled) regression coefficient and beta is the standardized partial regression coefficient.

The analysis was conducted on the juvenile court computerized data base.

TABLE 8

MULTIPLE REGRESSION ANALYSIS OF DSO EFFECT

ON PROBABILITY OF DETENTION FOR STATUS OFFENDERS[1]

No. of cases=2,540

| INDEPENDENT VARIABLE | DEPENDENT VARIABLE: PROBABILITY OF BEING DETAINED (0=not detained; 1=detained) Zero Order Correlation | B | Beta | F Value[1] | Prob |
|---|---|---|---|---|---|
| Experimental Group | -.30 | -.21 | -.15 | 32.3 | <.001 |
| Control Group | -.01 | .08 | .04 | 3.03 | <.01 |
| Change in trend, DSO startup (D2MONTH) | -.28 | -.03 | -1.00 | 32.7 | <.001 |
| Overall trend, January 1974 - June 1977 | -.18 | .02 | .42 | 40.8 | <.001 |
| No. of prior offenses | .14 | .02 | .09 | 20 | <.001 |
| Less stable living situation | .10 | .003 | .08 | 18.5 | <.001 |
| Older | .06 | .02 | .05 | 7.6 | <.001 |
| Not regularly enrolled in school | -.03 | .04 | -.04 | 3.7 | <.001 |
| Sex (0=male; 1=female) | .01 | .01 | -- | n.s. | <.001 |
| $R^2$=.14 | | | | | |

[1] The bivariate correlation (r) shows the relationship of each independent variable to detention without controlling for the effects of the other independent variables. B is the unstandardized partial regression coefficient for an independent variable when all the other variables are statistically controlled. Beta is the standardized partial regression coefficient.

The results in Table 7 substantiate the conclusions drawn earlier concerning the impact of DSO on detention for all status offenders. There is a statistically significant downward shift to the trend after the court decided to apply for the grant and the downward trend is accelerated when the DSO project began in July 1976.

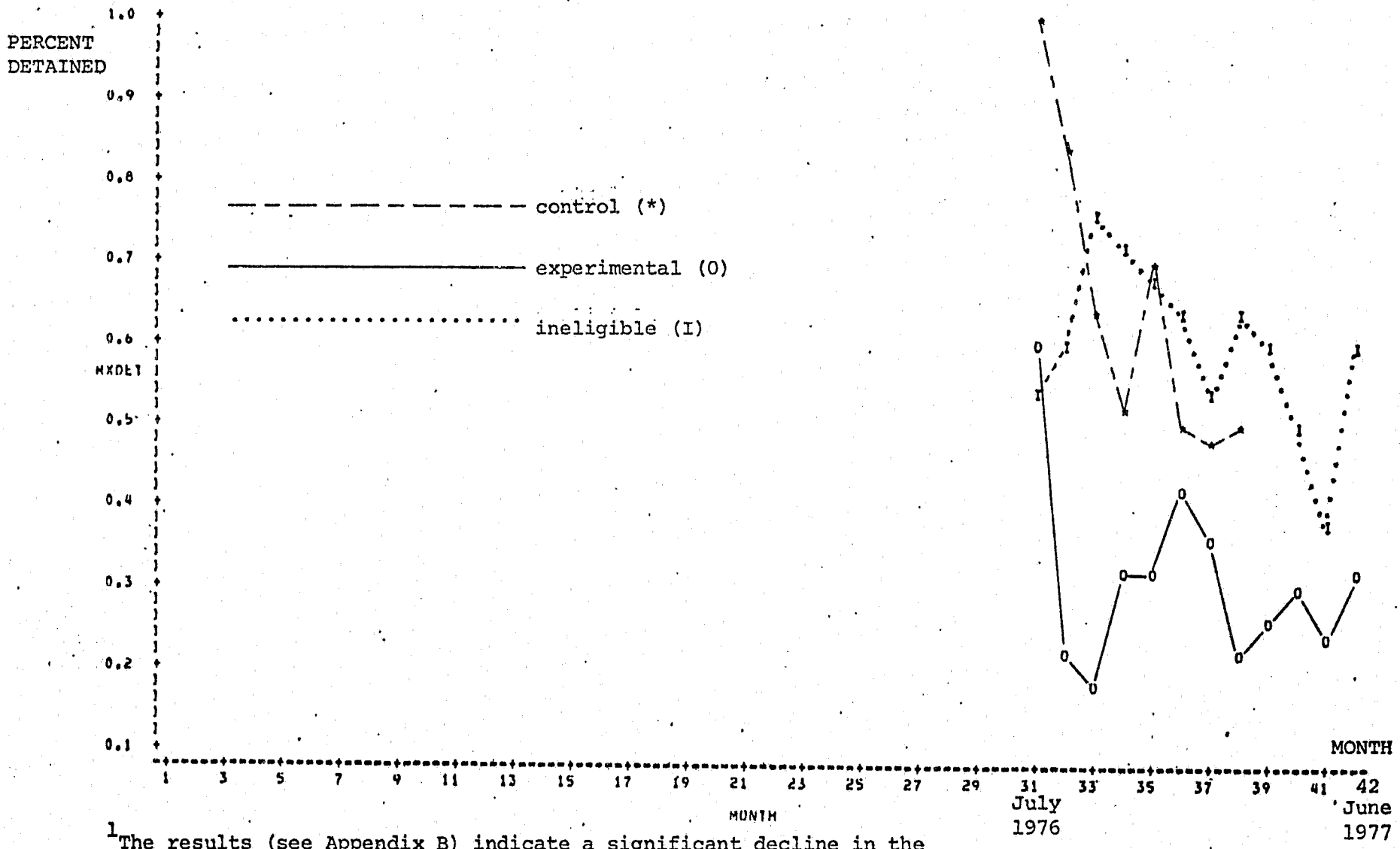
Although the experimental group differed from control in terms of detention, a time series analysis of the post-program trends in detention for each group indicates that the detention pattern within both the control and ineligible groups tended to converge toward that of the experimental group. The monthly trends, beginning with program startup in July 1976 and ending in February 1977 (for the control group) and in June 1977 (for the experimental and ineligible groups) are shown in Figure 7. The detention rate for the experimental group was relatively high the first month (they handled only ten cases), but thereafter it was low and varied from about 20 percent to a high of about 40 percent. The control group, in contrast, detained 82 percent of the cases during the first three months of the program, but were down to 49 percent in the last three months. The pattern for ineligibles is generally downward as well. These results indicate a convergence in the handling of status offenders with the DSO approach of non-detention gradually spreading to the other groups.

Comparison of Status Offenders and Delinquents

It is also of interest to compare the detention of status offenders and delinquents. The data (Table 9) show that status offenders were far more likely to be detained than were delinquents prior to DSO, but had about the same probability as delinquents of being detained in the post time period. Female status offenders had a higher probability of being detained than males in the pre-DSO months, but a lower probability after DSO.

FIGURE 7

PROPOSITION OF CONTROL, EXPERIMENTAL, & INELIGIBLE STATUS OFFENDERS DETAINED IN POST-DSO TIME PERIODS[1]




[1]The results (see Appendix B) indicate a significant decline in the proportion of control and ineligible youths who were detained.

TABLE 9

PROPORTION OF STATUS OFFENDERS & DELINQUENTS DETAINED PRE & POST BY SELECTED CHARACTERISTICS OF THE YOUTHS[1]

| | STATUS OFFENDERS | | DELINQUENTS | | NUMBER OF CASES | | | |
|---|---|---|---|---|---|---|---|---|
| | Percent Detained | | Percent Detained | | Status Offenders | | Delinquents | |
| CHARACTERISTIC | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| TOTALS | 72% | 48% | 42% | 49% | 2,317 | 914 | 5,242 | 2,594 |
| SEX | | | | | | | | |
| Male | 70% | 50% | 43% | 50% | 975 | 390 | 4,353 | 2,048 |
| Female | 73% | 47% | 38% | 46% | 1,353 | 522 | 906 | 552 |
| LIVING SITUATION | | | | | | | | |
| Both natural parents | 67% | 46% | 36% | 45% | 941 | 332 | 2,969 | 1,399 |
| Two parents, one step | 75% | 43% | 49% | 55% | 327 | 178 | 500 | 267 |
| One parent | 72% | 43% | 49% | 52% | 589 | 260 | 1,053 | 594 |
| Other[2] | 85% | 75% | 63% | 69% | 345 | 116 | 354 | 196 |
| TYPE OF OFFENSE | | | | | | | | |
| Curfew | 69% | 61% | -- | -- | 176 | 76 | -- | -- |
| Runaway | 80% | 57% | -- | -- | 1,093 | 439 | -- | -- |
| Incorrigible | 67% | 40% | -- | -- | 824 | 272 | -- | -- |
| Truant | 2% | 1% | -- | -- | 120 | 93 | -- | -- |
| Other Status Offense | 71% | 53% | -- | -- | 115 | 34 | -- | -- |
| Personal Delinquency[3] | -- | -- | 47% | 51% | -- | -- | 197 | 132 |
| Property Delinquency[3] | -- | -- | 40% | 44% | -- | -- | 2,732 | 1,242 |
| Non-Victim Delinquency[3] | -- | -- | 49% | 58% | -- | -- | 1,680 | 906 |
| Other Delinquency | -- | -- | 29% | 42% | -- | -- | 650 | 322 |

CONTINUED ON NEXT PAGE

TABLE 9 (continued)

| CHARACTERISTIC | STATUS OFFENDERS Percent Detained Pre | STATUS OFFENDERS Percent Detained Post | DELINQUENTS Percent Detained Pre | DELINQUENTS Percent Detained Post | NUMBER OF CASES Status Offenders Pre | NUMBER OF CASES Status Offenders Post | NUMBER OF CASES Delinquents Pre | NUMBER OF CASES Delinquents Post |
|---|---|---|---|---|---|---|---|---|
| PRIOR DELINQUENT OFFENSES | | | | | | | | |
| No prior delinquent offenses in last 12 mos. | 71% | 46% | 37% | 44% | 1,715 | 668 | 3,405 | 1,494 |
| One prior delinquent offense in past 12 mos. | 77% | 44% | 43% | 52% | 295 | 97 | 759 | 321 |
| PRIOR STATUS OFFENSES | | | | | | | | |
| No prior status offenses in last 12 months | 70% | 44% | 39% | 46% | 1,383 | 591 | 4,454 | 2,138 |
| One status offense in past 12 months | 70% | 48% | 54% | 57% | 385 | 137 | 301 | 147 |

[1]The analysis was conducted from raw (computerized) data provided to IPA by the Clark County juvenile court. The pre-program time period is January 1974 through June 1976. The post-program time period is from July 1976 through June 1977.

[2]"Other" includes relatives, group homes, foster homes, and institutions.

[3]Personal delinquency includes murder, rape, robbery, assault, and public indecencies. Property offenses are forgery, theft, stolen property, malicious mischief, larceny, shoplifting, and vandalism. Non-victim offenses are possession/use of drugs or alcohol, disorderly conduct, prostitution, and disturbing the peace. Other delinquency includes other misdemeanors and delinquent probation violations.

Discussion

The major conclusion of this section is that the DSO project in Clark County reduced the detention of status offenders both directly and indirectly. First, the decision to apply for a grant under the federal DSO initiative and the corresponding change in court policy about detention produced a statistically significant downturn in what had been a steadily increasing proportion of status offenders detained. Second, the implementation of the DSO project produced a statistically significant accentuation of the downward trend in detention of status offenders. Third, the experimental group was primarily responsible for the reduction in proportion of status offenders detained, although both the control group and the ineligibles gradually converged toward a much lower detention rate than what had existed in the pre-program period. Fourth, even though there were differences in client characteristics between the experimental and control groups, there is strong evidence that the difference in detention is attributable to the probation officer strategy and/or personal characteristics of the counselor rather than to differences in client characteristics. We have no way of determining whether differences were due to the strategy used or to the younger age and lesser experience of the DSO counselors and the fact that one of the DSO counselors was a man (whereas both of the control counselors were women). It seems plausible, however, that the philosophy of DSO, the crisis intervention counseling, and the longer hours of availability, combined with (perhaps) a philosophy held by the DSO counselors concerning how status offenders should be handled, produced the change. The fact that the other probation officers gradually converged toward the experimental group in terms of detention rates for status offenders would argue strongly for the notion that failure to detain youths is not

a function of age, experience, or sex of the probation officer.

Fifth, the pre-program pattern in which status offenders had a much higher probability of being detained than did delinquents was changed so that the likelihood of detention was about equal.

In general, it is appropriate to say that the decrease in detention rates for status offenders was partially due to a pre-program change in court policy--probably sparked by the decision to apply for DSO funds--and to the treatment strategy used in the experimental group, which made it less necessary to detain status offenders.

## IMPACT OF THE DSO PROJECT ON THE FILING OF PETITIONS AGAINST STATUS OFFENDERS

Another indication of whether DSO reduced the penetration of status offenders into the juvenile justice system can be found by examining changes in the proportion of status offenders on whom petitions were filed. When a petition is filed in Clark County, a fact-finding hearing and disposition hearing follow. Except for cases dismissed, the youths usually are placed on formal probation. It was expected that DSO would reduce the need to file petitions if the crisis counseling and/or family crisis counseling were effective in reconciling intra-family conflicts, thereby permitting the youths to return home without official court action. It also is possible, however, that the DSO initiative directly or indirectly altered the court policy and philosophy concerning the need to file petitions on status offenders and that this policy change affected all status offenders. In other words, changes in the proportion of youths on whom petitions are filed, if they exist, could be attributed either to the strategy of the DSO project per se or to a general change in the court policy.

Changes in Petitions

The proportion of status offenders on whom petitions were filed from January 1974 through July 1976 declined at a rate of about .77 percent per month and the decline accellerated after the startup of DSO to about a 3.1 percent drop per month (see Figure 8 and Appendix B). The accentuation of the downward trend that began in July 1976 (DSO startup) is statistically significant beyond the .05 level.

Furthermore, there are statistically significant downward trends in the proportion of status offenders on whom petitions were filed within both the experimental and control groups during the post-DSO time period (Figure 9 and Appendix B). This suggests that the idea of handling status offenders informally, rather than with petitions and hearings, gradually was applied to a larger percentage of the eligible youths regardless of which group they were in.

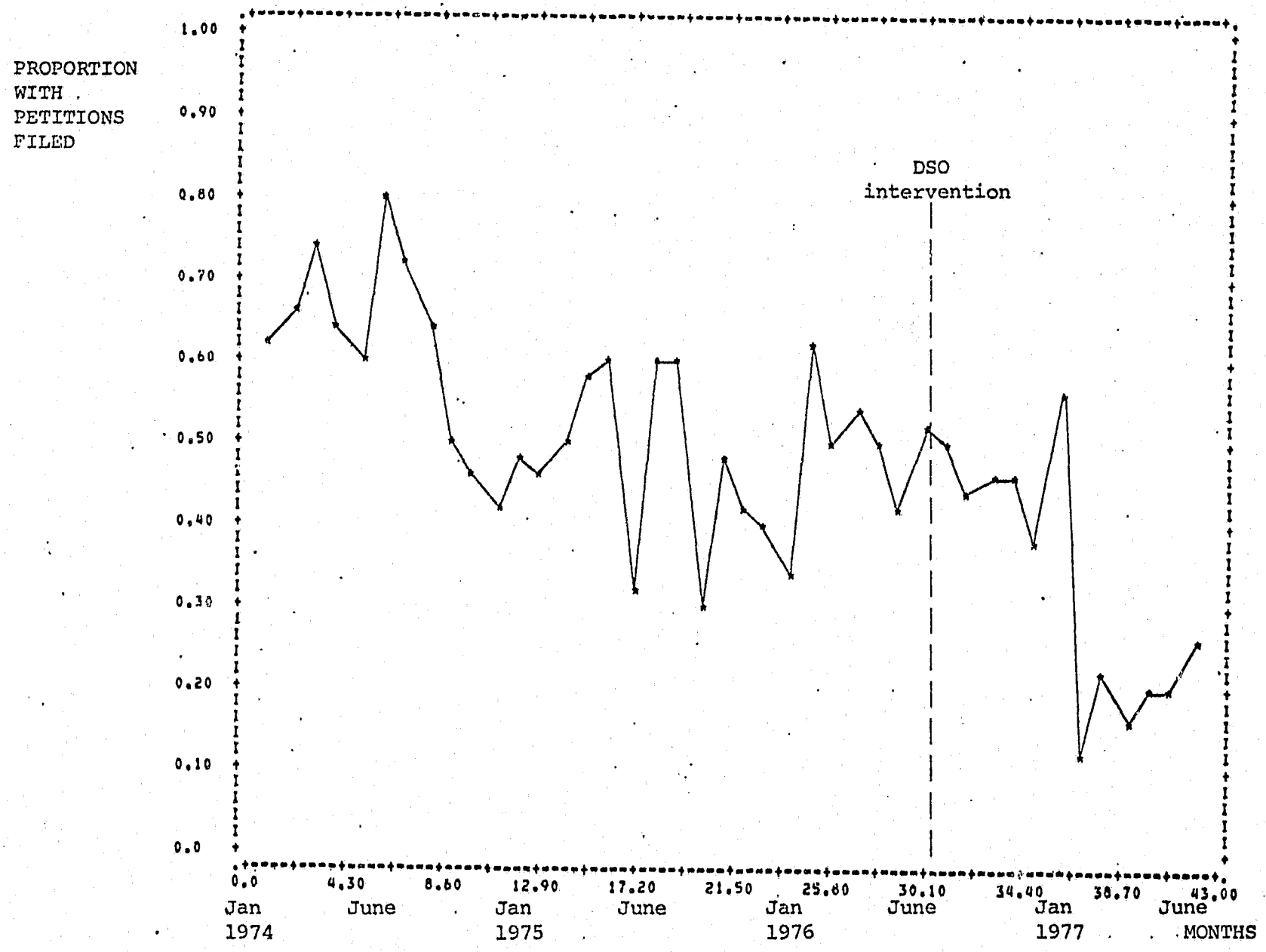
Comparing the Experimental and Control Groups

As noted previously, a decline in petitions filed on status offenders could occur because of a change in court policy affecting all status offenders or because of the particular strategy of handling status offenders used by the experimental (but not the control) group counselors. The experimental strategy could make it less necessary to file petitions if (a) petitions tend to be filed because the youth and parents are not able or willing to resolve their conflicts and (b) the crisis and family counseling were effective in resolving these conflicts.

Comparisons of the experimental, control, and ineligible groups (Table 10) shows that the former filed petitions on seven percent of the status offenders compared with 14 percent in the control group and 41 percent in the ineligible group. Within the various characteristics of the

FIGURE 8

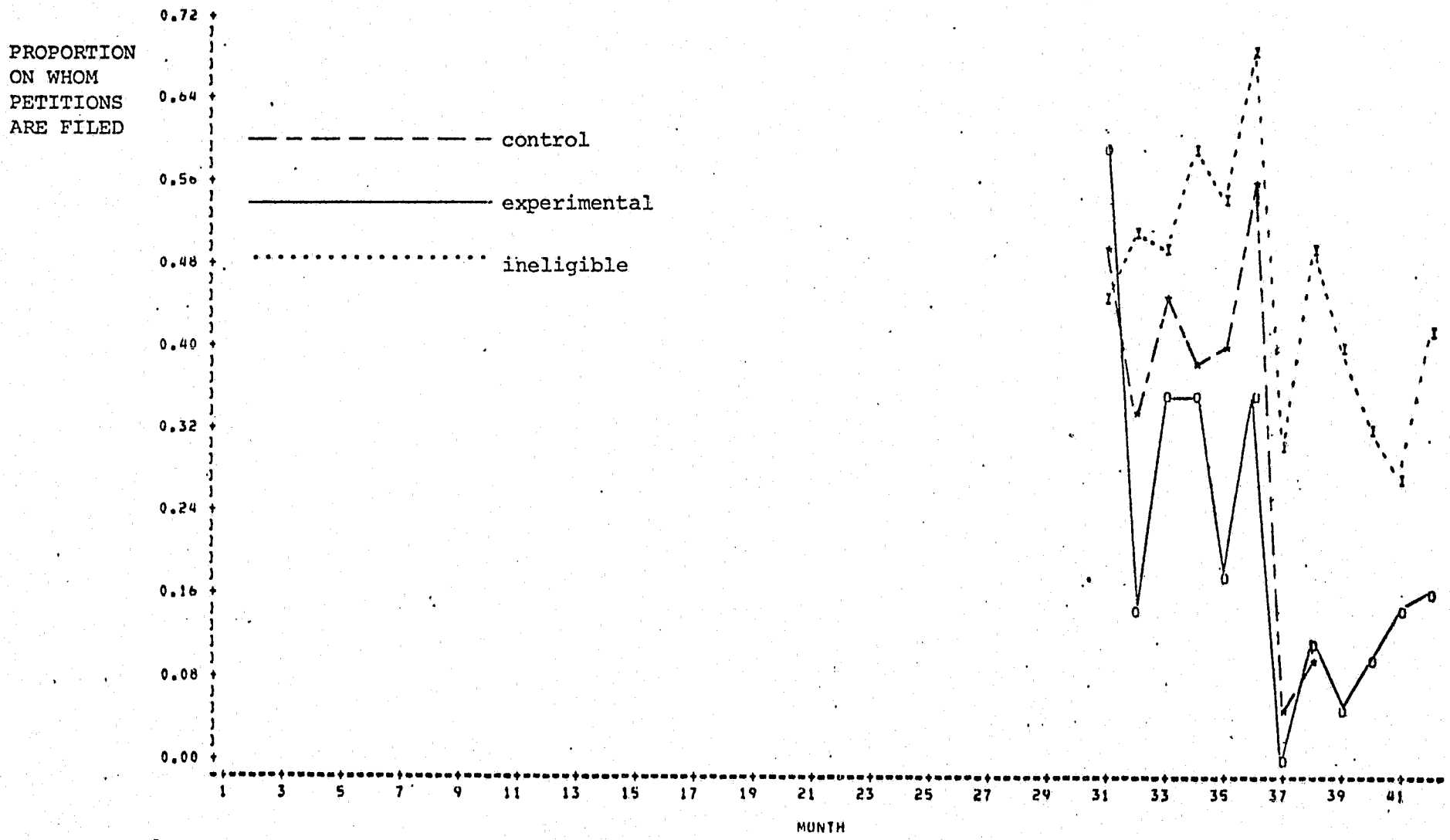
PROPORTION OF STATUS OFFENDERS ON WHOM PETITIONS ARE FILED, PRE & POST DSO[1]




[1]The results (see Appendix B) show a delayed but statistically significant decline in the proportion of status offenders on whom petitions are filed.

FIGURE 9

PROPORTION OF EXPERIMENTAL, CONTROL, & INELIGIBLE YOUTHS ON WHOM PETITIONS ARE FILED, POST-DSO[1]




[1]The results show a decline in the proportion of status offenders on whom petitions were filed within each of the post-DSO groups (see Appendix B).

TABLE 10

PROPORTION OF STATUS OFFENDERS ON WHOM PETITIONS WERE FILED FOR EXPERIMENTAL, CONTROL, & INELIGIBLE GROUPS BY SELECTED CHARACTERISTICS OF THE YOUTHS[1]

| CHARACTERISTICS | PERCENT WITH PETITIONS FILED | | | NUMBER OF CASES | | |
|---|---|---|---|---|---|---|
| | Exper | Control | Inelig | Exper | Control | Inelig |
| TOTAL | 7% | 14% | 41% | 360 | 127 | 425 |
| SEX | | | | | | |
| Male | 8% | 3% | 36.3% | 156 | 30 | 204 |
| Female | 7% | 12% | 45% | 204 | 97 | 221 |
| LIVING SITUATION | | | | | | |
| Both parents | 3% | 10% | 32% | 141 | 49 | 142 |
| Two parents, one step | 7% | 8% | 40% | 76 | 26 | 76 |
| One parent | 8% | 7% | 38% | 121 | 42 | 97 |
| Other[2] | 26% | 29% | 61% | 19 | 7 | 90 |
| TYPE OF OFFENSE | | | | | | |
| Curfew | 0 | 0 | 20% | 11 | 9 | 56 |
| Runaway | 9% | 2% | 50% | 171 | 51 | 217 |
| Incorrigible | 8% | 26% | 46% | 130 | 53 | 89 |
| Truant | 2% | 0 | 6% | 44 | 14 | 35 |
| Other[2] | 0 | 0 | 36% | 6 | 0 | 28 |
| PRIOR OFFENSES | | | | | | |
| No prior delinq offense in last 12 months | 7% | 9% | 43% | 296 | 106 | 266 |
| No prior status offense in last 12 months | 7% | 8% | 43% | 257 | 86 | 248 |
| One delinquency in last 12 mos | 18% | 11% | 52% | 40 | 9 | 48 |
| One status offense in last 12 months | 12% | 10% | 35% | 67 | 19 | 51 |

[1] The analysis is based on the court computerized data.

[2] "Other" includes group homes, foster homes, relatives, and institutions.

youths, however, the differences in petitions filed by experimental and control group counselors are not particularly marked except for incorrigibles. Only 8 percent of the youths entering the court as incorrigibles in the experimental group had petitions filed compared with 26 percent in the control group. This result lends some credence to the notion that the treatment strategy of crisis counseling and family therapy used by the experimental group had little impact on petitions being filed for status offenders except (possibly) for youths entering as incorrigibles.

Another appropriate (although imperfect) way to isolate the independent effects of the experimental and control treatments on eligible status offenders is to examine the impact of each group controlling for pre-program trend and other factors that could produce differences. The multiple regression analysis is shown in Table 11 and the following conclusions are in order:

1. Both the experimental and control groups were less likely to have a petition filed than were the pre-program groups.

2. The experimental group does not differ significantly from the control group in terms of proportion of petitions filed on status offenders.

3. Regardless of the group the youth is in, the chance of a petition being filed is greater if the family situation is less stable, if the youth was detained, if the youth had one or more prior status offenses, or if the youth is younger. The sex of the youth is not a relevant factor in filing a petition.

To further examine whether the experimental group differed from the controls, a multiple regression was performed only on these two groups (eliminating pre-program youths and the post-DSO ineligibles). As shown in Table 12, the treatment variable does not have a statistically significant effect on petitions being filed when the other variables are

TABLE 11

MULTIPLE REGRESSION ANALYSIS OF PROBABILITY OF FILING PETITIONS ON STATUS OFFENDERS, PRE AND POST[1]

| INDEPENDENT VARIABLE | DEPENDENT VARIABLE: PETITIONS (0=NO; 1=YES) Zero Order Correlation | B | Beta | F Value | Probability |
|---|---|---|---|---|---|
| Experimental Group | -.17 | -.27 | -.20 | 71 | <.001 |
| Control Group | -.08 | -.29 | -.13 | 42 | <.001 |
| Pre-Program Trend | -.05 | .01 | .02 | .799 | n.s. |
| Change in Trend at DSO Startup | -.06 | -.005 | -.19 | 1.18 | n.s. |
| Unstable Family | .22 | .01 | .18 | 99 | <.001 |
| Not Regularly Enrolled in School | .14 | .11 | .13 | 55 | <.001 |
| Detained | .14 | .07 | .07 | 16 | <.001 |
| Prior Status Offender | .14 | .03 | .10 | 8.6 | <.001 |
| Older | -.01 | -.01 | -.03 | 2.5 | <.01 |
| Total Priors | .14 | -.01 | -.05 | 1.96 | <.01 |
| [not in equation:] | | | | | |
| Sex | -.01 | -.01 | -.01 | .59 | <.01 |
| $R^2$=.12 | | | | | |
| F=35.30 | | | | | |
| N=2,540 | | | | | |

[1]The zero order correlation shows the relationship of each variable on the left with detention when no other variables are controlled. B is the unstandardized partial (e.g., all other variables in the equation are controlled) regression coefficient and beta is the standardized partial regression coefficient. The analysis was conducted on the juvenile court computerized data base.

TABLE 12

MULTIPLE REGRESSION OF PROBABILITY PETITION WILL BE FILED FOR EXPERIMENTAL & CONTROL GROUP STATUS OFFENDERS[1]

| | DEPENDENT VARIABLE: PETITIONS (0=NO; 1=YES) | | | | |
|---|---|---|---|---|---|
| INDEPENDENT VARIABLE | Zero Order Correlation | B | Beta | F Value | Probability |
| Treatment (exper=1; control=0) | -.05 | -.02 | -.04 | .57 | n.s. |
| Number Prior Status Offenses | .08 | .02 | .08 | 2.1 | <.10 |
| Number Prior Delinquent Offenses | .05 | .03 | .05 | .82 | n.s. |
| Living Situation | .05 | .000 | .04 | .51 | n.s. |
| Sex (female=1; male=0) | -.01 | -.003 | -.007 | .015 | n.s. |
| Age | -.02 | -.003 | -.02 | .13 | n.s. |
| $R^2$=.04 | | | | | |
| N=454 | | | | | |

[1]The zero order correlation shows the relationship of each variable on the left with detention when no other variables are controlled. B is the unstandardized partial regression coefficient and beta is the standardized partial regression coefficient. The analysis was conducted on the juvenile court computerized data base.

controlled.

Comparison of Status Offenders and Delinquents

Prior to the beginning of DSO, status offenders were slightly more likely to have had a petition filed against them (30 percent versus 27 percent), but this pattern was reversed after the program began in that 23 percent of the status offenders and 29 percent of the delinquents had petitions filed. Other data from which comparisons can be made (by characteristics of the youths) are contained in Table 13.

Discussion

The major conclusions from this section are:

1. The statistically significant change in proportion of status offenders on whom petitions were filed that occurred when DSO was implemented probably was the result of a general change in court policy prompted by the DSO philosophy rather than the result of the specific treatment strategy (crisis counseling/family therapy) used by the experimental group probation officers.

2. The experimental and control groups did not differ much, if at all, in proportion of petitions filed when client characteristics were controlled. The single exception of interest is that the experimental group counselors filed petitions on a much smaller proportion of the incorrigibles.

## IMPACT OF DSO ON RECIDIVISM RATES OF STATUS OFFENDERS

The major question to be discussed in this section is whether the DSO intervention brought about a change in the recidivism rates of status offenders. The project could result in reduced recidivism if it is the case, as labelling theorists believe, that youths who experience less penetration

TABLE 13

PROPORTION OF STATUS OFFENDERS & DELINQUENTS ON WHOM PETITIONS FILED

PRE & POST BY SELECTED CHARACTERISTICS OF THE JUVENILES

| CHARACTERISTICS | STATUS OFFENDERS % with Petitions | | DELINQUENTS % with Petitions | | NUMBER OF CASES Status Offenders | | Delinquents | |
|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| TOTALS | 30% | 23% | 27% | 29% | 2,328 | 912 | 5,259 | 2,600 |
| SEX | | | | | | | | |
| Male | 32% | 22% | 29% | 32% | 975 | 390 | 4,353 | 2,048 |
| Female | 29% | 24% | 18% | 19% | 1,353 | 522 | 906 | 552 |
| LIVING SITUATION | | | | | | | | |
| Both natural parents | 22% | 16% | 18% | 18% | 941 | 332 | 2,969 | 1,399 |
| Both parents, one step | 30% | 21% | 36% | 35% | 327 | 178 | 500 | 267 |
| One parent | 30% | 19% | 34% | 35% | 589 | 260 | 1,053 | 594 |
| Other[2] | 48% | 53% | 60% | 71% | 345 | 116 | 354 | 196 |
| TYPE OF OFFENSE | | | | | | | | |
| Curfew | 22% | 14% | | | 176 | 76 | | |
| Runaway | 32% | 28% | | | 1,093 | 439 | | |
| Incorrigible | 36% | 23% | | | 824 | 272 | | |
| Truant | 21% | 3% | | | 120 | 93 | | |
| Other | 17% | 29% | | | 115 | 34 | | |
| Personal Delinquency[3] | | | 36% | 48% | | | 197 | 132 |
| Property Delinquency[3] | | | 29% | 29% | | | 2,732 | 1,242 |
| Non-Victim Delinquency[3] | | | 15% | 15% | | | 1,680 | 906 |
| Other Delinquency | | | 43% | 58% | | | 650 | 322 |

CONTINUED ON NEXT PAGE

TABLE 13 (continued)

| CHARACTERISTICS | STATUS OFFENDERS % with Petitions Pre | STATUS OFFENDERS % with Petitions Post | DELINQUENTS % with Petitions Pre | DELINQUENTS % with Petitions Post | NUMBER OF CASES Status Offenders Pre | NUMBER OF CASES Status Offenders Post | NUMBER OF CASES Delinquents Pre | NUMBER OF CASES Delinquents Post |
|---|---|---|---|---|---|---|---|---|
| PRIOR OFFENSES | | | | | | | | |
| No prior delinquency in past 12 months | 30% | 24% | 21% | 21% | 1,715 | 668 | 3,405 | 1,494 |
| No prior status offenses in past 12 months | 80% | 21% | 24% | 25% | 1,383 | 591 | 4,454 | 2,138 |
| One prior delinquency in past 12 months | 29% | 34% | 31% | 34% | 295 | 97 | 759 | 321 |
| One prior status offense in past 12 months | 30% | 19% | 35% | 51% | 385 | 137 | 301 | 147 |

[1]The analysis was conducted from raw (computerized) data provided to IPA by the Clark County juvenile court. The pre-program time period is January 1974 through June 1976. The post-program time period is from July 1976 through June 1977.

[2]"Other" includes relatives, group homes, foster homes, and institutions.

[3]Personal delinquency includes murder, rape, robbery, assault, and public indecencies. Property offenses are forgery, theft, stolen property, malicious mischief, larceny, shoplifting, and vandalism. Non-victim offenses are possession/use of drugs or alcohol, disorderly conduct, prostitution, and disturbing the peace. Other delinquency includes other misdemeanors and delinquent probation violations.

into the juvenile justice system are less likely to recidivate. Thus, since the DSO intervention reduced the proportion of youths detained and reduced the proportion of status offenders on whom petitions were filed, it is possible that it also reduced recidivism. The project could, of course, have an effect on recidivism independent of its impact on detention and petitions because of the different counseling and therapy strategies that were used.

As has been done in the previous sections, the analysis will proceed by first examining the impact of the DSO intervention on all status offenders (experimental, control, and ineligible) in order to test the effectiveness of the project on the entire system. In addition, since the post-DSO status offenders are relatively comparable to the pre-DSO youths who committed similar offenses, this provides some assurance that observed differences are not due to changes in the characteristics of the youths. Following these analyses, a comparison will be made between the experimental DSO and control youths in order to ascertain whether the experimental strategy in handling status offenders was more effective, in terms of recidivism, than the control strategy, for youths eligible for the program.

Measurement of Recidivism

Recidivism has been measured in terms of recontact with the juvenile court for either a status or delinquent offense. There are several problems in measurement of recidivism, some of which will be discussed below along with the procedure used in this report to deal with them.

1. The purpose of the DSO project was not simply to reduce the number of subsequent court contacts, but also to reduce the frequency of commission of offenses. And, since youths often commit status or delinquent offenses without being caught or referred to the court, the recontact measure is an underestimate of the actual number of offenses committed.

We have no reason to believe, however, that the proportion of youths referred to the court differed between the experimental and control groups or differed from the pre to post time periods. Thus, even though the recontact measure contains considerable error, the nature of the error is the same for the pre and post time periods and for the experimental, control, and ineligible groups within the post time period. Thus, the major effect of this type of error is that the tests of significance will tend to underestimate the true differences between pre and post, as well as the true differences between experimental and control groups.

2. The number of youths referred to the court for a subsequent offense depends on the number of months the youths were "at risk" after the instant offense. The pre-program youths had far more months in which to commit a subsequent offense than the post-program group. In addition, since the probation officers who handled the control group discontinued their work with eligible status offenders in February 1978, the control group has more months "at risk" than does the experimental group. The best solution to this problem is to select a specific followup time (such as three or six months from the end of the month in which the instant offense was committed). Any instant offenses for which there were not enough months at risk to meet the followup time (three months or six months) are removed from the analysis. This procedure was used here and most of the analysis was based on a three-month followup period. Because data collection ended after the first 12 months of the project, there is a severe reduction of cases in the post period when six or more months of followup data are included.

3. Another problem is what to do with offenses that were committed after the followup time period. One solution is to place the youth who committed the instant offense into the "non-recidivism" category if s/he committed a subsequent offense but it was <u>after</u> the fixed risk period of

three (or six) months. The problem with this approach is that it places youths who we know are going to recidivate into the non-recidivist category and this category already contains many youths who eventually will recidivate. This is particularly true of the pre-program group, in comparison with the post, since the former had longer times at risk. This approach will yield a conservative estimate (underestimate) of the effect of the project unless the full impact of the project occurs during the fixed "at risk" time and the project youths do not differ from the others in terms of the proportion recidivating after the fixed risk time. Nevertheless, in the subsequent analysis those persons recidivating after the fixed risk time are counted as non-recidivators.

Change from Pre to Post

One method of assessing the impact of the DSO intervention on the recidivism rates of post-DSO status offenders is to examine the proportion of status offenders (pre and post) who had a subsequent delinquent or status offense within the same month as the instant offense, within two months of the instant offense, within three months of the instant offense, and so on. The results of this analysis are shown in Table 14.

Data in the first row include all of the pre and post cases (since all of them had at least a followup period that extended to the end of the same month in which the instant offense occurred). Within that month, 9 percent of the pre-program status offenders had a subsequent offense compared with 6.3 percent of the post-program status offenders. This difference is significant beyond the .01 level (Z test for significance in proportions). The third column of Table 14 shows the difference between pre and post and the last two columns show the number of cases upon which the analysis is based.

Examination of the first two columns of Table 14 shows that the

TABLE 14

PROPORTION OF STATUS OFFENDERS RECIDIVATING

WITHIN SPECIFIED FOLLOWUP PERIODS, PRE & POST[1]

| Number of Months "At Risk" | % with subsequent offense within risk period | | Z Value | Difference Pre/Post | Number of Cases[3] | |
|---|---|---|---|---|---|---|
| | Pre | Post[2] | | | Pre | Post |
| 0 MONTH (same month) | 9% | 6.3% | 2.53 | 2.7% | 2,330 | 914 |
| 1 MONTH | 18.9% | 16.6% | 1.49 | 2.3% | 2,330 | 860 |
| 2 MONTHS | 26.8% | 21.9% | 2.75 | 4.9% | 2,330 | 807 |
| 3 MONTHS | 33.1% | 25.2% | 4.02 | 7.9% | 2,330 | 729 |
| 4 MONTHS | 37.2% | 29.9% | 3.44 | 7.3% | 2,330 | 651 |
| 5 MONTHS | 40.1% | 32.6% | 3.22 | 7.5% | 2,330 | 542 |
| 6 MONTHS | 43.7% | 35.0% | 3.46 | 8.7% | 2,330 | 465 |
| 7 MONTHS | 45.7% | 37.9% | 2.94 | 7.8% | 2,330 | 416 |
| 8 MONTHS | 47.6% | 39.8% | 2.72 | 7.8% | 2,330 | 349 |

[1]Recidivism is measured as a subsequent court contact for a delinquent or status offense after the instant status offense. Those who had no subsequent offense within the risk period shown on the left are included as "non-recidivators" when calculating the percentage. The percentages are cumulative across the risk periods. Thus, 18.9 percent of pre-program status offenders had a subsequent offense during the same month or within one month of the end of the month in which the instant offense occurred; 26.8 percent had a subsequent offense in the same month or by the end of the first month or by the end of the second month.

[2]The post time period includes all status offenders, not just those who were eligible for the DSO project.

[3]The number of cases in the post time period drops as months "at risk" increase because all youths entering the court too late to have the full follow-up period (1 month, 2 months,...8 months) were excluded when calculating the recidivism rate for that particular follow-up period. Thus, for each of the months at risk, all youths included in that analysis had at least that many months of follow-up data.

proportion recidivating increases as expected as the time "at risk" increases. It should be noted that the percentage recidivating indicates those who had a subsequent offense at any time during the risk period, not just those recidivating within a particular month. Thus, the data for three months means that 33 percent of the pre-program status offenders had a subsequent offense within a followup period that extended for three months after the beginning of the month in which the instant offense occurred. It does not mean that 33 percent recidivated during the third month after the instant offense.

The difference between pre and post recidivism rates (column four of Table 14) increases from 2.7 percent in the same month to about 8 percent within three months and stabilizes at about 8 percent difference between pre and post as the risk period increases to eight months.

Although the differences observed would indicate that DSO had the effect of reducing recidivism, there are several other potential explanations of why recidivism was lower in the post time period. One possibility is that there was a downward trend in recidivism rates during the pre-program time period which simply continued after DSO began. Another alternative explanation is that the characteristics of status offenders were changing, over time or at the time that DSO began, and the difference in recidivism is attributable to the fact that the status offenders during the post time period did not have the same characteristics as status offenders during the pre-program phase.

The multiple regression analysis of pre and post data indicates that neither of these explanations accounts for the change in recidivism during the post time period. In Table 15 are the results of a multiple regression analysis using all pre and post cases that had at least three months of "at risk" time. The results show that the project intervention had a statistically

TABLE 15

MULTIPLE REGRESSION ANALYSIS OF DSO IMPACT ON 3-MONTH RECIDIVISM OF STATUS OFFENDERS, PRE AND POST[1]

No. of cases=2,285

| INDEPENDENT VARIABLE[3] | DEPENDENT VARIABLE: RECIDIVISM WITHIN 3 MONTHS OF INSTANT OFFENSE[2] Zero Order Correlation | B | Beta | F Value | Probability |
|---|---|---|---|---|---|
| DSO Startup | -.14 | -.08 | -.08 | 6.3 | <.001 |
| Monthly Trend | -.14 | -.004 | -.10 | 10.4 | <.001 |
| Number of Prior Status Offenses | .22 | .07 | .20 | 90 | <.001 |
| Number of Prior Delinquent Offenses | .16 | .07 | .14 | 42 | <.001 |
| Age (older) | -.08 | -.03 | -.11 | 28.5 | <.001 |
| Sex (female) | -.007 | -.007 | .00 | .10 | n.s. |

$R^2$=.10

F=30.7

[1]The zero order correlation shows the relationship of each variable on the left with recidivism when no other variables are controlled. B is the unstandardized partial regression coefficient and beta is the standardized partial regression coefficient. The analysis was conducted on the juvenile court computerized data base.

[2]Cases which did not have at least a three month risk period were excluded. Otherwise, all status offenders in the post period, not just the DSO project youths, were included.

[3]DSO start-up is a dummy variable with pre-project cases having a score of zero and post-DSO status offenders a score of one. The interaction term (DSO times month) was not significant. Other characteristics of status offenders (family stability, school status) were not significant and were omitted from the equation.

significant effect in reducing recidivism, controlling for age, sex, number of status offense priors, number of delinquent priors, and the family stiuation of the youth. The change attributable to DSO was a shift in the level of recidivism rather than a shift in the trend. The trend, for the entire time period, was statistically significant but of very minor magnitude. Recidivism, on the average, declined by less than one-half of one percent per month. The average recidivism rate for the three-month followup, however, dropped by about seven percent when DSO began, even with the other variables held constant.

It has been shown previously in this report that the proportion of youths detained declined as a result of the DSO project and the proportion of status offenders on whom petitions were filed also dropped. A multiple regression analysis of the effect of petitions and detention on recidivism is shown in Table 16. The results indicate that youths who are detained are more inclined to recidivate than those who are not, even when prior offenses have been controlled along with age, sex, and so on. In contrast, youths on whom petitions are filed tend to recidivate at a lower rate than others, when priors and socio-economic characteristics have been controlled. (Somewhat different results are obtained in the post only analysis, however.) More important, as shown at the bottom of Table 16, the DSO intervention had a statistically significant impact on recidivism independent of its effect on detention and petitions.

The results of the multiple regression analysis are substantiated by an examination of recidivism (pre and post) for youths with different characteristics (Table 17). Regardless of whether a three or six month "at risk" time is used, the results show that recidivism rates within selected characteristics of the status offenders are uniformly lower during the post-program time period.

TABLE 16

EFFECT OF DETENTION & PETITIONS ON 3-MONTH RECIDIVISM

OF STATUS OFFENDERS, PRE & POST[1]

N=2,285

| INDEPENDENT VARIABLE | DEPENDENT VARIABLE: RECIDIVISM WITHIN 2-MONTHS OF INSTANT OFFENSE | | | | |
|---|---|---|---|---|---|
| | Zero Order Correlation | B | Beta | F Value | Probability |
| Petitions | -.02 | -.05 | -.05 | 5.6 | <.001 |
| Detention | .07 | .06 | .06 | 8.8 | <.001 |
| Number Prior Status Offenses | .22 | .07 | .20 | 87 | <.001 |
| Number Prior Delinquent Offenses | .16 | .07 | .12 | 33 | <.001 |
| Age | -.08 | -.03 | -.10 | 26 | <.001 |
| $R^2$=.07 | | | | | |
| F=26 | | | | | |
| DSO Intervention[2] | -.14 | -.07 | -.07 | 4.7 | <.001 |
| Trend[2] | -.14 | -.004 | -.10 | 11 | <.001 |

[1]The zero order correlation shows the relationship of each variable on the left with recidivism when no other variables are controlled. B is the unstandardized partial regression coefficient and beta is the standardized partial regression coefficient. The analysis was conducted on the juvenile court computerized data base.

[2]The effect of DSO is estimated with all the other variables in the equation. The effect of petitions and detention (upper part of table) are estimated without the intervention variables being in the equation. Cases without at least a three-month risk period were excluded.

TABLE 17

THREE AND SIX MONTH RECIDIVISM RATES

OF STATUS OFFENDERS, PRE AND POST[1]

| CHARACTERISTIC | Three Month Recidivism Rates | | Six Month Recidivism Rates | | NUMBER OF CASES | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Three Months | | Six Months | |
| | PRE | POST | PRE | POST | PRE | POST | PRE | POST |
| SEX | | | | | | | | |
| Male | 31 | 26.2 | 42 | 37 | 976 | 305 | 976 | 200 |
| Female | 32.1 | 24.6 | 42 | 33 | 1,354 | 422 | 1,354 | 263 |
| LIVING SITUATION | | | | | | | | |
| both natural parents | 30.5 | 22.2 | 42 | 38 | 941 | 266 | 941 | 162 |
| two parents, one step | 36.7 | 21.9 | 46 | 32 | 327 | 137 | 327 | 79 |
| one parent | 31.0 | 29 | 41 | 25 | 591 | 209 | 591 | 134 |
| other[2] | 35.9 | 31 | 46 | 35 | 345 | 96 | 345 | 71 |
| AGE | | | | | | | | |
| 12-13 | 32.5 | 19 | 45 | 26 | 379 | 108 | 379 | 66 |
| 14-15 | 36.7 | 30 | 46 | 41 | 1,147 | 380 | 1,147 | 242 |
| 16-17 | 24 | 22 | 35 | 29 | 738 | 219 | 738 | 146 |
| OFFENSE | | | | | | | | |
| Curfew | 24.1 | 20 | 33 | 23 | 177 | 66 | 177 | 52 |
| Runaway | 32.5 | 24 | 40 | 35 | 1,093 | 329 | 1,093 | 205 |
| Incorrigible | 33 | 33 | 45 | 39 | 785 | 213 | 785 | 157 |
| Truant | 33 | 15 | 47 | 24 | 120 | 67 | 120 | 17 |

[CONTINUED ON NEXT PAGE]

TABLE 17 (continued)

| CHARACTERISTIC | Three Month Recidivism Rates | | Six Month Recidivism Rates | | NUMBER OF CASES | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Three Months | | Six Months | |
| | PRE | POST | PRE | POST | PRE | POST | PRE | POST |
| NUMBER OF PRIOR STATUS OR DELINQUENT OFFENSES | | | | | | | | |
| none | 23 | 17 | 30 | 24 | 1,103 | 368 | 1,103 | 223 |
| one | 37 | 23 | 47 | 36 | 521 | 157 | 521 | 92 |
| two | 36 | 37 | 55 | 41 | 300 | 71 | 300 | 44 |
| three | 47 | 42 | 60 | 54 | 406 | 139 | 406 | 106 |
| PETITIONS | | | | | | | | |
| no petition filed | 31 | 26 | 43 | 37 | 1,627 | 554 | 1,627 | 333 |
| petition filed | 33 | 23 | 40 | 30 | 703 | 175 | 703 | 132 |
| DETAINED | | | | | | | | |
| not detained | 28 | 24 | 38 | 35 | 664 | 358 | 664 | 201 |
| detained | 33 | 27 | 44 | 35 | 1,666 | 371 | 1,666 | 264 |

[1]The analysis is based on Clark County computerized data, July 1976 through June 1977.

[2]"Other" includes relatives, group homes, foster homes, or institutions.

Comparison of Experimental and Control

Even though the previous analysis indicates that DSO had a significant impact on recidivism, it is important to ascertain whether the post-DSO change was due primarily to the experimental group or whether some (or all) of it could be attributed to the control and ineligible groups.

Table 18 contains data showing the proportion of youths within the experimental and control groups who recidivated within the same month as the instant offense, within one month of the instant offense, two months, and so on. The experimental group has lower recidivism rates for each of the different amounts of time "at risk." The differences become substantial enough after three months of followup (nine percent) to approach statistical significance at the .05 level and clearly are significant at or beyond that level when the risk period is four through eight months.

The differences observed in Table 18 could, of course, be due to different characteristics of the youths in the two groups because, as has been noted several times, the random assignment of youths to experimental and control groups was not perfectly adhered to and some differences exist between the two groups.

The data in Table 19 show the recidivism rates of experimental, control, and ineligible youths within each of several selected characteristics of the youths.

The recidivism rate within the experimental group for both the three-month and six-month followup periods is generally lower than that for the control group regardless of the age of the youth, the living situation, the type of offense, and the number of prior offenses (status or delinquent). For males within the experimental group the recidivism rate is slightly higher after three months at risk (25 percent compared to 21 percent within the control group), but is lower than the control group after six months

TABLE 18

COMPARISON OF EXPERIMENTAL & CONTROL GROUP RECIDIVISM RATES

FOR DIFFERENT LENGTHS OF FOLLOWUP TIME[1]

| NUMBER MONTHS OF FOLLOWUP | Percent Recidivating (re-contact w/ court) | | Z Value | Prob | Difference Between E & C | Number of Cases Included In Analysis | |
|---|---|---|---|---|---|---|---|
| | Exper | Contr | | | | Exper | Contr |
| 0 | 6.4% | 10.2% | 1.43 | (ns) | 3.8 | 362 | 127 |
| 1 | 15.5% | 14.2% | .34 | (ns) | 1.3 | 330 | 127 |
| 2 | 18.5% | 21.3% | .67 | (ns) | 2.8 | 297 | 127 |
| 3 | 20.1% | 29.3% | 1.82 | (ns) | 9.2 | 263 | 123 |
| 4 | 24.4% | 37.9% | 2.58 | (.01) | 13.5 | 217 | 116 |
| 5 | 26.3% | 40.6% | 2.44 | (.05) | 14.3 | 156 | 96 |
| 6 | 29.4% | 48.0% | 2.66 | (.01) | 18.6 | 126 | 75 |
| 7 | 33.0% | 56.0% | 2.9 | (.01) | 23.0 | 112 | 59 |
| 8 | 38.1% | 57.0% | 2.11 | (.05) | 18.9 | 84 | 49 |

[1]Recidivism is measured as a subsequent court contact for a delinquent or status offense after the instant status offense. Those who had no subsequent offenses within the risk period shown on the left are included as "non-recidivators" when calculating the percentage. The percentages are comulative across the risk period.

TABLE 19

COMPARISON OF EXPERIMENTAL, CONTROL, & INELIGIBLE RECIDIVISM RATES FOR THREE & SIX MONTHS OF TIME AT RISK[1]

| CHARACTER-ISTICS | THREE MONTHS AT RISK | | | SIX MONTHS AT RISK | | | NUMBER OF CASES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | THREE MONTHS | | | SIX MONTHS | | |
| | Exper | Contr | Inelg | Exper | Contr | Inelg | Exper | Contr | Inelg | Exper | Contr | Inelg |
| AGE | | | | | | | | | | | | |
| 12-13 | 19 | 31 | 15 | 18 | 50 | 24 | 43 | 13 | 52 | 17 | 8 | 41 |
| 14-15 | 26 | 32 | 32 | 40 | 52 | 38 | 140 | 72 | 68 | 68 | 46 | 128 |
| 16-17 | 14 | 24 | 27 | 16 | 40 | 33 | 72 | 34 | 113 | 37 | 20 | 89 |
| LIVING SITUATION | | | | | | | | | | | | |
| both parents | 20 | 29 | 21 | 40 | 45 | 33 | 109 | 48 | 109 | 52 | 31 | 79 |
| two parents, one step | 13 | 19 | 30 | 17 | 47 | 33 | 48 | 26 | 63 | 18 | 15 | 46 |
| one parent | 36 | 33 | 31 | 25 | 48 | 37 | 91 | 40 | 78 | 48 | 23 | 63 |
| other[2] | 23 | 43 | 32 | (17) | (50) | 36 | 13 | 7 | 76 | 6 | 4 | 61 |
| OFFENSE | | | | | | | | | | | | |
| curfew | (38) | (22) | 16 | (20) | (50) | 22 | 8 | 9 | 49 | 5 | 2 | 45 |
| runaway | 16 | 28 | 28 | 23 | 46 | 36 | 113 | 50 | 166 | 44 | 35 | 126 |
| incorrigible | 29 | 36 | 36 | 32 | 51 | 40 | 91 | 50 | 72 | 60 | 37 | 60 |
| truant | 11 | 15 | 25 | (33) | (0) | (14) | 38 | 13 | 16 | 9 | 1 | 7 |
| SEX | | | | | | | | | | | | |
| male | 25 | 21 | 28 | 34 | 50 | 36 | 112 | 29 | 164 | 50 | 14 | 136 |
| female | 17 | 32 | 27 | 26 | 48 | 31 | 149 | 94 | 179 | 74 | 61 | 128 |

[CONTINUED ON NEXT PAGE]

TABLE 19 (continued)

| CHARACTER-ISTICS | THREE MONTHS AT RISK | | | SIX MONTHS AT RISK | | | NUMBER OF CASES: THREE MONTHS | | | NUMBER OF CASES: SIX MONTHS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Exper | Contr | Inelg | Exper | Contr | Inelg | Exper | Contr | Inelg | Exper | Contr | Inelg |
| PRIOR OFFENSES | | | | | | | | | | | | |
| none | 19 | 24 | 13 | 26 | 42 | 17 | 151 | 70 | 147 | 69 | 41 | 113 |
| one | 22 | 40 | 19 | 39 | 64 | 24 | 73 | 25 | 53 | 36 | 14 | 42 |
| two | 32 | 24 | 48 | 25 | 40 | 50 | 25 | 17 | 29 | 12 | 10 | 22 |
| three+ | 21 | 46 | 45 | 22 | 60 | 56 | 14 | 11 | 114 | 9 | 10 | 87 |
| # STATUS OFFENSE PRIORS | | | | | | | | | | | | |
| none | 20 | 22 | 15 | 30 | 43 | 22 | 186 | 85 | 200 | 83 | 47 | 155 |
| one | 21 | 50 | 41 | 26 | 64 | 38 | 53 | 18 | 51 | 31 | 11 | 42 |
| two | 27 | 30 | 58 | 33 | 38 | 67 | 15 | 10 | 24 | 6 | 8 | 18 |
| three+ | 33 | 50 | 43 | 33 | 67 | 55 | 9 | 10 | 68 | 6 | 9 | 49 |
| # DELINQ. OFFENSE PRIORS | | | | | | | | | | | | |
| none | 20 | 31 | 22 | 28 | 47 | 24 | 213 | 102 | 210 | 103 | 64 | 160 |
| one or more | 24 | 19 | 36 | 35 | 55 | 49 | 50 | 21 | 133 | 23 | 11 | 104 |

[1]The analysis is based on Clark County computerized data, July 1976 through June 1977. Whether a youth was in the experimental, control, or ineligible group was determined from the data IPA collected for the USC national evaluation and this designation was added to the raw court data file.

[2]"Other" includes relatives, group homes, foster homes, or institutions.

at risk. (Tests of statistical significance have not been calculated for this table because its purpose is to examine whether the patterns of differences--9 percent lower for three months and almost 19 percent lower for six months--is maintained within various categories of youths.) In general, the evidence in Table 19 shows that the observed differences in Table 18 are not attributable to differences between the types of status offenders handled by the two groups.

This conclusion is further substantiated with the multiple regression analysis reported in Table 20. The treatment variable, even with all priors and socio-economic characteristics controlled, produces about a 10 percent reduction in the recidivism rate for a three-month "at risk" period and this is statistically significant ($F=4.07$) beyond the .01 level.

The effect of petitions and detention on recidivism, controlling for priors and socio-economic characteristics, is shown in Table 21, but the results (based only on a comparison of experimental and control group youths) differ from those found when the entire pre-post data were examined. For the former, it appears as if the filing of a petition increases the probability of recidivism, whereas detention is not significantly related to recidivism. For the entire pre-post data, detention had a significant relationship to higher recidivism, but petitions were related to lower recidivism. It should be noted that being in the experimental group (Table 21) maintains a significant relationship with lower recidivism even when detention and petitions are controlled.

A final question is whether some change in the community or at the court produced a change in the recidivism rates of all youths--status offenders and delinquents--and, therefore, the apparent effect of DSO has been confused with this outside influence on the system. An analysis of recidivism rates of delinquents shows 18 percent of youths whose instant offense

TABLE 20

MULTIPLE REGRESSION OF TREATMENT EFFECTS ON RECIDIVISM RATES FOR THREE MONTHS AT RISK TIME, EXPERIMENTAL VERSUS CONTROL[1]

N=345

| | Zero Order Correlation | B | Beta | F Value | Probability |
|---|---|---|---|---|---|
| Treatment (experimental) | -.11 | -.10 | -.11 | 4.07 | <.001 |
| Prior status offenses | .10 | .05 | .09 | 3.2 | <.01 |
| Prior delinquent offenses | -.02 | -.02 | -.03 | .23 | n.s. |
| Parents | .08 | .003 | .07 | 1.78 | <.10 |
| Age | -.05 | -.01 | -.05 | .81 | n.s. |
| Sex (female) | -.02 | -.03 | -.04 | .61 | n.s. |
| Constant | | .46 | | | $R^2$=.11 |

[1]The zero order correlation shows the relationship of each variable on the left with recidivism when no other variables are controlled. B is the unstandardized partial regression coefficient and beta is the standardized partial regression coefficient. The analysis was conducted on the juvenile court computerized data base.

TABLE 21

MULTIPLE REGRESSION OF PETITIONS & DETENTION WITH RECIDIVISM RATES FOR THREE MONTHS RISK TIME, EXPERIMENTAL & CONTROL GROUPS[1]

N=345

| | Zero Order Correlation | B | Beta | F Value | Probability |
|---|---|---|---|---|---|
| Detention | .04 | .04 | .04 | .48 | n.s. |
| Petitions | .10 | .17 | .10 | 3.2 | <.01 |
| Prior Status Offenses | .11 | .05 | .09 | 2.69 | <.05 |
| Living Situation | .08 | .003 | .07 | 1.68 | n.s. |
| Age | -.05 | -.01 | -.05 | .70 | n.s. |
| Prior Delinquent Offenses | -.02 | -.03 | -.03 | .27 | n.s. |
| Sex (female) | -.02 | -.02 | -.02 | .174 | n.s. |
| constant | | .35 | | | $R^2$=.03 |
| Treatment[2] (control=1; experimental=0) | -.11 | -.10 | -.10 | 3.35 | |

[1]The zero order correlation shows the relationship of each variable on the left with recidivism when no other variables are controlled. B is the unstandardized partial regression coefficient and beta is the standardized partial regression coefficient. The analysis was conducted on the juvenile court computerized data base.

[2]The effect of the treatment is estimated with the other variables in the equation. In the upper part of the table, the effects are estimated without the treatment variable being controlled.

was a delinquency had a subsequent delinquent or status offense within three months during the pre-program time period compared with 19 percent of the post-DSO delinquents. When six months of followup are used, the results are quite similar: During the pre-program time period, delinquent offenses were followed by a subsequent status or delinquent offense in 22 percent of the cases compared with 24 percent recidivism for the post-DSO youths. Thus, the recidivism rates for delinquents did not change at all, or increased slightly, providing evidence that the observed decrease for status offenders was not produced by some outside factor influencing all youths in the community.

Discussion

The major conclusions from this section are:

1. The DSO intervention in July 1976 produced a statistically significant decrease in recidivism of status offenders.

2. The reduction in recidivism was due primarily to the experimental DSO youths who, when compared with the control group, had a significantly lower recidivism rate.

3. For a three-month followup period the pre-program recidivism rate of status offenders was 33 percent compared with 25 percent for the post-DSO status offenders (experimental, control, and ineligibles). A difference of about seven percent between pre and post recidivism rates was maintained even when a variety of possibly confounding variables were controlled (prior offenses, age, living situation, and sex). For a six-month followup period the differences between pre and post were 44 percent (pre) and 35 percent (post).

4. The experimental group recidivism rate for a three-month followup period was 20 percent compared with 29 percent for the control group. When

other possibly confounding variables were controlled the difference between the groups was about 10 percent. For a six-month followup the difference between experimental and control groups was much larger (29 percent compared with 48 percent).

5. The effect of detention and/or filing petitions on status offender recidivism is difficult to assess and disentangle from the effect of prior offenses. When the pre and post time periods are examined together, it appears as if recidivism increases if the youth is detained but declines if a petition is filed. For the experimental and control groups in the post time period, a different pattern was observed: Recidivism increased if a petition was filed but detentions had no effect. In either case, the effect was rather trivial (in the general area of 2 or 3 percent differences). The effect of DSO on recidivism was maintained even when both petitions and detention were statistically controlled in the regression equations.

FOOTNOTES

[1]For discussions and research on the labelling theory of secondary deviance, see: Edwin M. Lemert, Social Pathology (McGraw-Hill, 1951); Edwin M. Lemert, Human Deviance, Social Problems, and Social Control (Prentice-Hall, 1972); Suzanne S. Ageton and Delbert S. Elliott, "The Effects of Legal Processing on Delinquent Orientation," Social Problems (October, 1974), pp. 87-100; Gene Fisher and Maynard Erickson, "On Assessing the Effects of Official Reactions to Juvenile Delinquency," Journal of Research in Crime and Delinquency (July, 1973), pp. 117-194;

[2]The groups differed in size when they should have been equal, during the first six months, and the experimental group had too many boys. Our best assessment is that the problem was caused not by "fudging" on assignments, but by the way the intake and assignment procedures worked. Each morning, a consultant to the project determined from a random numbers table whether it was an experimental or control group day and notified court personnel. Control group counsellors, however, were not on duty after 5 p.m. nor on weekends. And, even when they were on duty, their schedules often were filled with appointments and they could not see a youth immediately after intake. The problem was created when the intake officer did not "perform intake" (e.g., fill out the forms) unless the youth was to be detained or a probation officer was available for an interview/counselling session. Thus, on control group days, the youths who came into the court but were not detained would be told to return the next day because the control group counsellors were not on duty or were busy with appointments. On experimental group days, however, the probation officers were on duty and took referrals immediately after intake. Thus, the experimental group received all of the cases they should have gotten plus an estimated 50 percent of those who actually entered on control days but were told to return the next day because no one was available to see them. These youths were supposed to be in the control group but, in fact, had a second chance to get into the experimental group. This accounts for why the experimental group had more referrals. It explains why the experimental group had too many boys if boys are more likely to come in after 5 p.m. or on weekends than are girls. That is a plausible explanation. Even though the random assignment procedure did not work as well as it should have, we have no reason to believe that judgemental decisions of the type that the "easy" or "hard" cases were being placed into one group or the other were being made.

[3]Lee Cronbach and Lita Furby, "How We Should Measure 'Change'--or Should We?", Psychological Bulletin, Vol. 74, No. 1, pp. 68-80.

[4]For a good discussion of the ARIMA approach see: Gene V. Glass, Victor L. Willson, and John M. Gottman, Design and Analysis of Time-Series Experiments (Colorado Associated University Press, 1975); Stuart J. Deutsch and Francis B. Alt, "The Effect of Massachusetts' Gun Control Law on Gun-related Crimes in the City of Boston," Evaluation Quarterly, 1, (1977), pp. 543-568; George E.P. Box and Gwilym M. Jenkins, Time Series Analysis: Forecasting and Control, revised edition (Holden-Day, 1976); Charles R. Nelson, Applied Time Series Analysis (Holden-Day, 1973); and Warren Gilchrist, Statistical Forecasting (John Wiley & Sons, 1976).

# CONTINUED

# 1 OF 2

# APPENDIX A

## A DECISION POINT ANALYSIS

## OF THE VANCOUVER JUVENILE COURT

APPENDIX A

# A DECISION POINT ANALYSIS OF THE VANCOUVER JUVENILE COURT

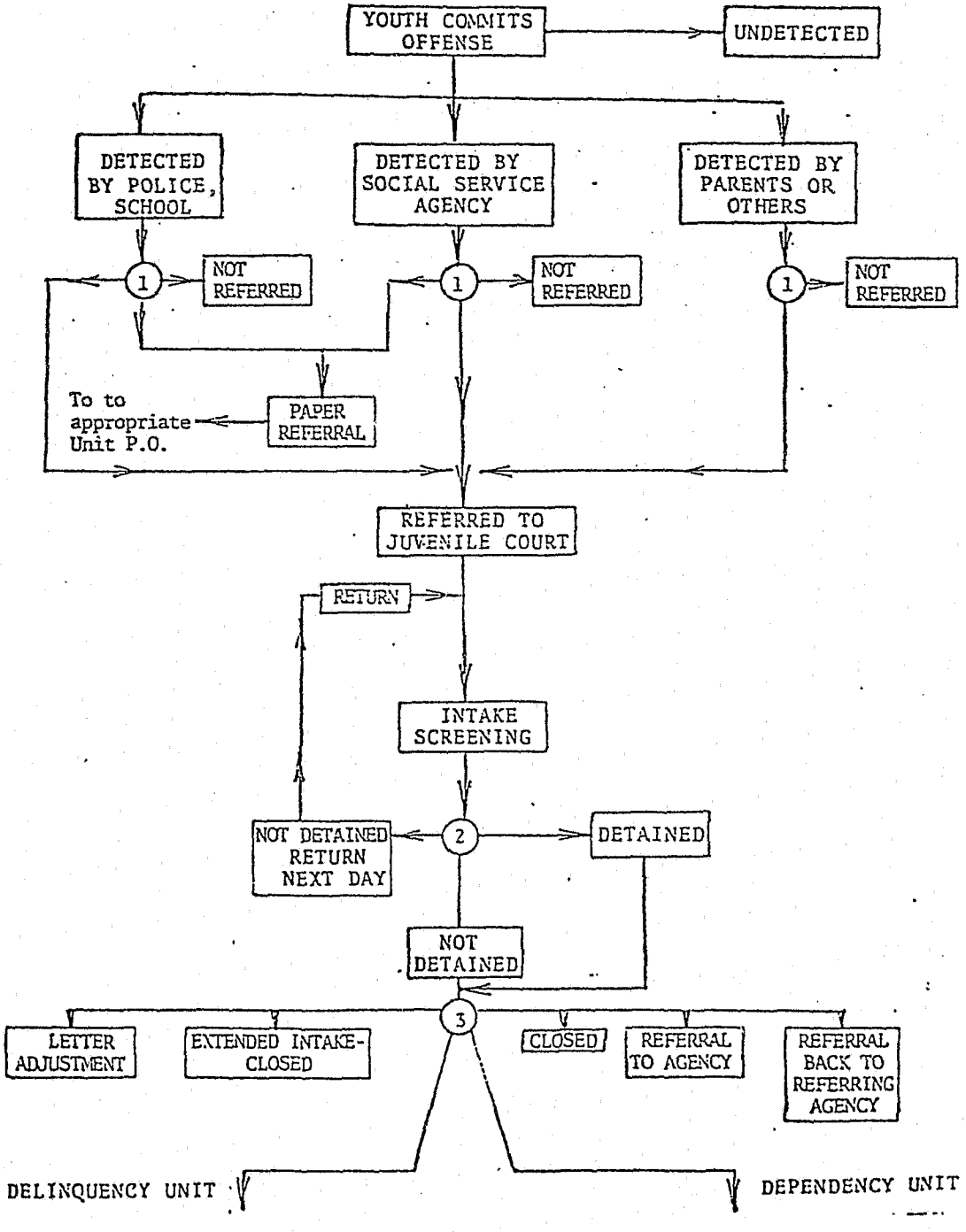
A juvenile court is a complex organization containing numerous decision points, many of which are not represented in a typical organizational chart. In order to evaluate a program that exists within a juvenile court, it is extremely helpful to have a thorough understanding of how the court system works and how the program is integrated into that system.

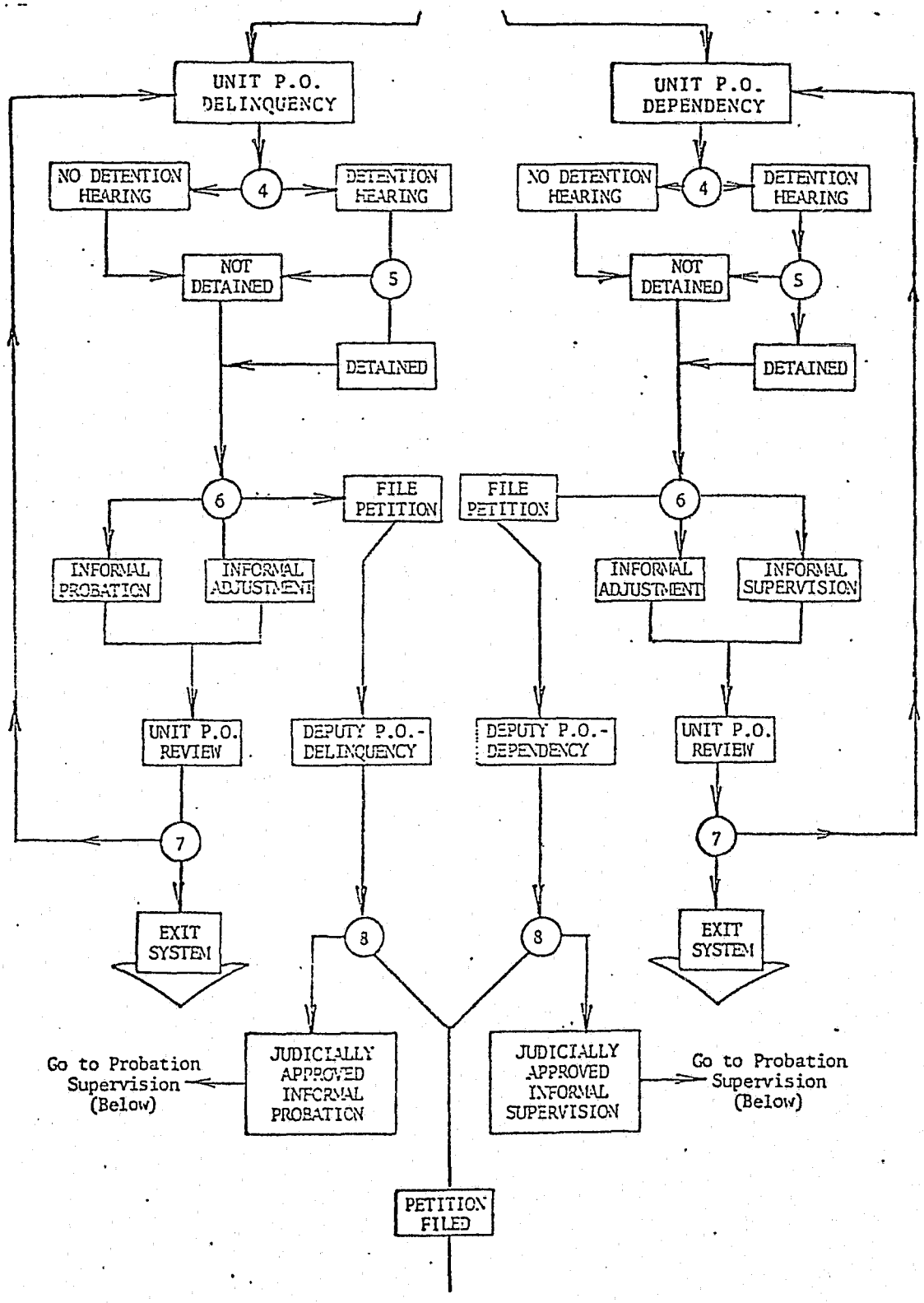
In order to obtain information about the juvenile court that would assist in evaluating and understanding the DSO program, we developed a "flow chart" analysis system that focuses on decision points within the organization.

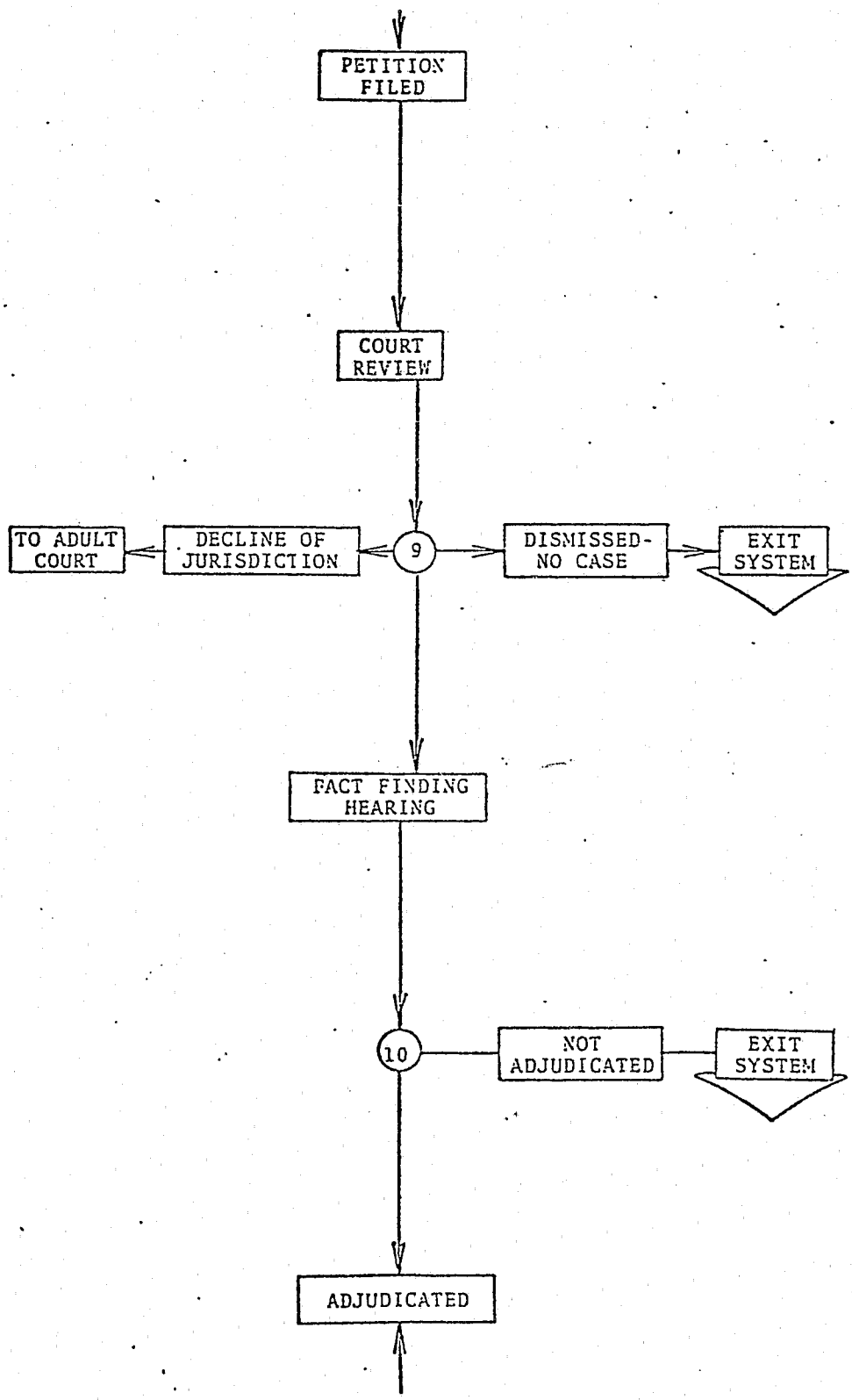
For the purposes of this analysis, a decision point is defined as any point in a process where one or more members of the organization (e.g., the court) is able to exercise options concerning the future of an organizational client (e.g., the status offender). In the diagram on subsequent pages, an event or set of options is identified with a box, whereas a decision is identified by a circle. All decision points are numbered and the accompanying narrative for each explains who makes the decision, what the options are, and what criteria are used for choosing among the options.

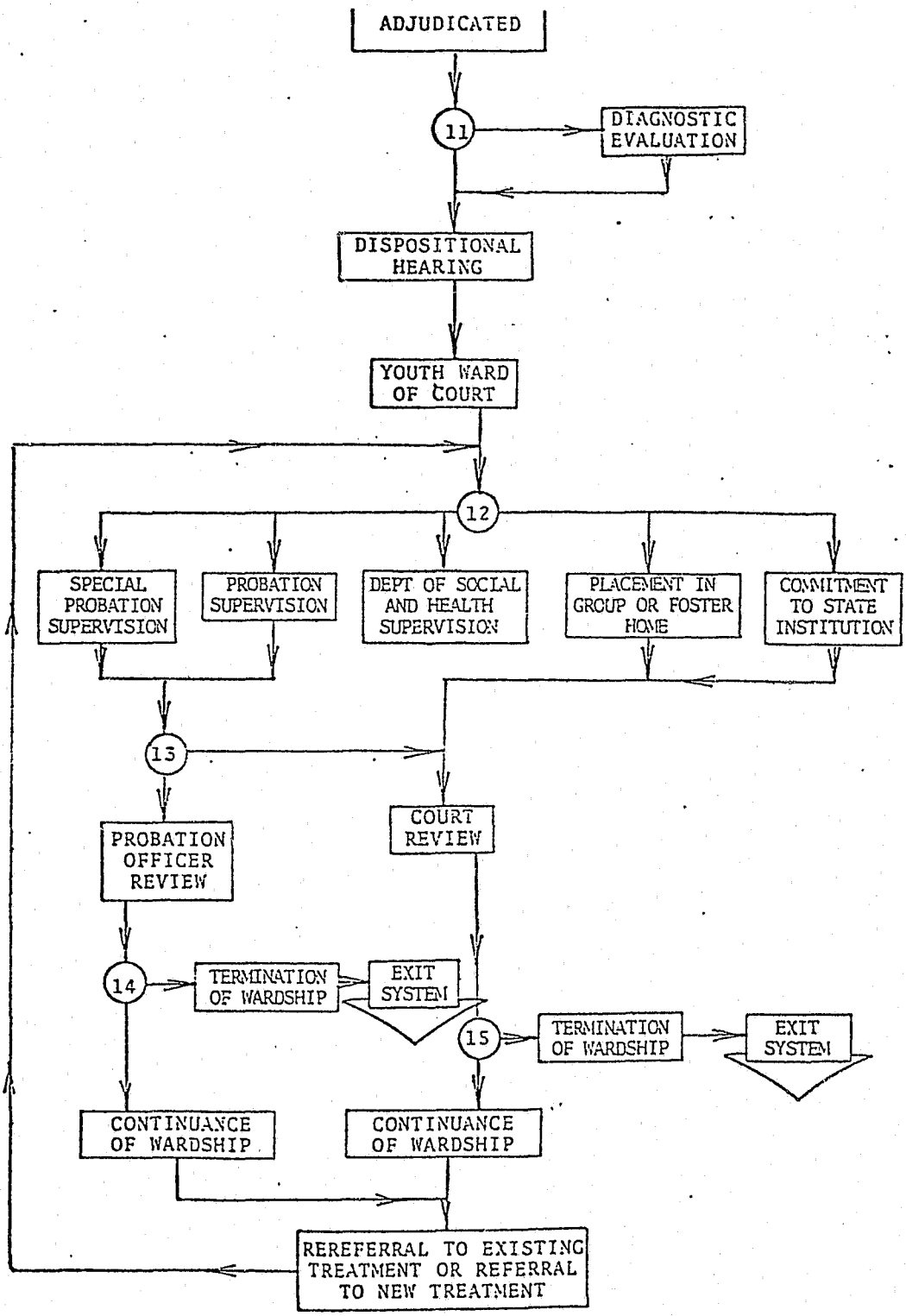
THE CLARK COUNTY JUVENILE COURT

FLOW CHART




UNIT P.O. DELINQUENCY
UNIT P.O. DEPENDENCY
NO DETENTION HEARING
4
DETENTION HEARING
NO DETENTION HEARING
4
DETENTION HEARING
NOT DETAINED
5
NOT DETAINED
5
DETAINED
DETAINED
6
FILE PETITION
FILE PETITION
6
INFORMAL PROBATION
INFORMAL ADJUSTMENT
INFORMAL ADJUSTMENT
INFORMAL SUPERVISION
UNIT P.O. REVIEW
DEPUTY P.O.- DELINQUENCY
DEPUTY P.O.- DEPENDENCY
UNIT P.O. REVIEW
7
7
EXIT SYSTEM
8
8
EXIT SYSTEM
Go to Probation Supervision (Below)
JUDICIALLY APPROVED INFORMAL PROBATION
JUDICIALLY APPROVED INFORMAL SUPERVISION
Go to Probation Supervision (Below)
PETITION FILED


PETITION FILED
COURT REVIEW
TO ADULT COURT
DECLINE OF JURISDICTION
9
DISMISSED-NO CASE
EXIT SYSTEM
FACT FINDING HEARING
10
NOT ADJUDICATED
EXIT SYSTEM
ADJUDICATED


ADJUDICATED
11
DIAGNOSTIC EVALUATION
DISPOSITIONAL HEARING
YOUTH WARD OF COURT
12
SPECIAL PROBATION SUPERVISION
PROBATION SUPERVISION
DEPT OF SOCIAL AND HEALTH SUPERVISION
PLACEMENT IN GROUP OR FOSTER HOME
COMMITMENT TO STATE INSTITUTION
13
PROBATION OFFICER REVIEW
COURT REVIEW
14
TERMINATION OF WARDSHIP
EXIT SYSTEM
15
TERMINATION OF WARDSHIP
EXIT SYSTEM
CONTINUANCE OF WARDSHIP
CONTINUANCE OF WARDSHIP
REREFERRAL TO EXISTING TREATMENT OR REFERRAL TO NEW TREATMENT

# DESCRIPTION OF DECISION POINTS IN THE CLARK COUNTY COURT FLOW CHART

Decision Point — Description

**1** Youth has been detected committing an offense:

Who: The police, school authorities, social service agencies, parent or other citizens may detect the youth committing an offense.

What: Each observer makes an individual decision to either report the youth to the Juvenile Court or to lecture and release the youth without making a court referral. The police, school authorities, and social agencies have the option to notify the court by written report (paper referral) and thereby eliminating the need to deliver the youth to Juvenile Court.

Criteria: Individual choices, criteria unknown.

**2** Youth has been brought to the court:

Who: The intake officer initially screens the case. All of the probation staff do intake work; however, some officers do intake exclusively.

What: The intake officer has one of three options: Detaining the youth, not detaining the youth, or appointment with a probation officer the next day.

Criteria: The nature of the offense, the immediate availability of a probation officer, and the availability of parents or guardians to take the youth home.

**3** The disposition of the case:

Who: The intake officer makes choices among alternative methods of processing the case.

What: The intake officer has the option to close or complete services available at the court during intake. For those youths who require additional court services, the case is assigned to one of the alternative dispositions: letter adjustment, referral to a social service agency, or assignment to the appropriate probation unit (dependency or delinquency).

Criteria: Circumstances or the case, the youth's offense history, and the availability of parents or guardians willing to take the youth home.

**4** The youth is assigned to the dependency or delinquency probation unit:

Who: The unit probation officers assigned to the case by the deputy probation officer handle the case during the rest of the court proceedings.

| Decision Point | Description |
|---|---|
| 4 | What: The unit probation officer makes the decision concerning the need for a detention hearing.<br>Criteria: Request by the offender or the offender's parents or guardian. |
| 5 | The detention hearing:<br>Who: Present at the detention hearing are the offender, the assigned probation officer, the parents or guardian, and one of the four superior court judges providing the judicial services for the Juvenile Court.<br>What: The decision is made on the need to detain the youth.<br>Criteria: Unknown. |
| 6 | Further treatment of the case:<br>Who: The assigned probation officer.<br>What: The unit probation officer has three options to dispose of the case: two types of informal procedures or the formal procedure of filing a petition. The informal procedures include informal adjustment and informal probation/supervision. Informal adjustment refers to an agreement made between the youth and the probation officer concerning the youth's activities. Informal probation/supervision refers to an agreement made with the youth, the probation officer, and the parents/guardian concerning the youth's activities.<br>Criteria: The nature of the offense, the youth's home situation, and the youth's offense history. |
| 7 | Informal adjustment or informal probation/supervision:<br>Who: The assigned probation officer.<br>What: The PO reviews the youth's progress and decides whether to release the youth from the court services or to continue treatment.<br>Criteria: Satisfactory completion of the agreements made during the informal adjustment procedures. |
| 8 | The filing of petitions:<br>Who: The deputy probation officer of either the dependency or delinquency unit.<br>What: The deputy officer reviews the unit probation officer's decision to file a petition. The deputy officer has the option to obtain judicially approved informal probation for the youth.<br>Criteria: The nature of the case. |

| Decision Point | Description |
|---|---|

(9) Court review of the petition:

Who: Those present at the court review of the petition usually include the offender, the parents'guardian, the probation officer, the district attorney and the offender's attorney.

What: The decision is made to either dismiss the case, decline jurisdiction, or resume with the court procedures leading to adjudication.

Criteria: Unknown.

(10) Fact-finding hearing:

Who: Those present at the fact finding hearing usually include the offender, the parents'guardian, the probation officer, the district attorney, and offender's attorney and the presiding Superior Court judge.

What: The juvenile court determines whether or not there is sufficient evidence to sustain the allegations in the petition.

Criteria: The facts of the case.

(11) Diagnostic evaluation:

Who: The presiding judge at the fact-finding hearing.

What: The decision is made concerning the need for a diagnostic evaluation of the youth's situation. The investigation is completed before the dispositional hearing.

Criteria: Unknown.

(12) The youth becomes a ward of the court at the dispositional hearing:

Who: Those present at the dispositional hearing usually include the offender, the parents'guardian, the district attorney, the offender's attorney, and the presiding Superior Court judge.

What: The judge determines an appropriate treatment for the youth. The available treatments are normal probation, intensive probation, referral to the Department of Social and Health Services, placement in a group or foster home, or commitment to the state institution.

Criteria: The nature of the case and the outcome of the diagnostic evaluation, if conducted.

(13) Normal and intensive probation:

Who: The unit probation officer assigned to the case to supervise the youth during the probation period.

What: A decision is made whether a probation officer's review of the case or a court review of the case is needed before termination of probation.

| Decision Point | Description |
|---|---|
| (13) | Criteria: Successful completion of the terms of probation as specified at the dispositional hearing. |
| (14) | Probation officer review of the case:<br>Who: The unit probation officer assigned to the case.<br>What: The decision is made to terminate or continue the youth's probation period.<br>Criteria: Successful completion of the terms of probation as specified at the dispositional hearing. |
| (15) | Court review of the case:<br>Who: The presiding juvenile judge of the Superior Court.<br>What: The decision is made whether to terminate or continue probation, group or foster home placement, or state institutional commitment.<br>Criteria: Successful completion of the treatment (probation, group or foster home placement, or institutional commitment). |

## SYSTEM RATE CHARTS

One of the evaluation data collection requirements for the national evaluators is the compilation of system rate information from each site. In order to compile this information for Clark County it was necessary to obtain the case-by-case computerized data from the court and resolve differences in coding from one year to the next. The flow charts are based on data collected by the court and analyzed by the Institute of Policy Analysis. The court neither keeps nor compiles system rate information of this type and, therefore, we cannot check these results against theirs to resolve differences in interpretation given to the various dispositional codes.

In Vancouver the source of referral information on the left side of the charts is the juvenile court records, not law enforcement officials, schools, and so on. The figures do not show any contacts with police (for example) in which the youth was released without referral to juvenile court. These data are not kept by the eight law enforcement agencies that provide cases to the Vancouver court and therefore cannot be collected.

The dispositions have been grouped into eight categories for the system rate presentation. The definitions of these are as follows:

(a) Dismissed. If a case is dismissed for any reason, it is coded into this category. Included are dismissals of prior probation, dismissal for lack of evidence, charges that are dropped by the complainant, dismissal of wardships, and so on.

(b) Informal Adjustment. In this category are all cases adjusted at court intake which involve no referrals to any agency and no court followup of any type.

(c) Informal Adjustment with Followup. These are cases which involve

a referral and/or informal probation by a probation officer. The officer conducts some type of minimum level followup of the youth, but there is no supervised probationary status.

(d) Regular Probation. In Vancouver the probation officers distinguish between regular probation and intensive probation and their coding of each case as either "regular" or "intensive" was used in this analysis. Most of the group home and foster home referrals are in this category.

(e) Special Problems. Intensive probation in Vancouver includes referrals to group homes or foster homes if accompanied by frequent supervision and all DSHS commitments. DSHS referrals for foster home placement are coded as intensive probation.

(f) Danger of Institutionalization. Included in this category are delinquent offenders who, while on parole, are referred to the court for a status offense (usually runaway) and are returned to the parole officer. Although not all of these youths will be institutionalized, it is reasonable to believe they are "in danger" of being institutionalized. Also in this category are those cases in which the youth is committed to DSHS but the commitment is suspended for a period of time during which the youth's behavior is closely monitored.

(g) Referrals to Adult Court. All referrals to adult court are coded in this category.

(h) Instituionalization. Actual commitments to DSHS for the purpose of commitment to the juvenile institution or the ordering of detention time for the youth are coded here.

The numbers in the flow charts do not always add up properly. For example, one may find that there were 100 cases in a particular category which branches into four or five subsequent categories, but the sum of the latter is less than 100. Cases which have no disposition coded or for which

the disposition is not relevant (such as release to other jurisdictions) are noted as "NA" (not ascertained).

In the disposition columns, the flow charts show the cases involving no hearing (no petition being filed) branch into disposition categories (a), (b), and (c), whereas cases with hearings branch into categories (d) through (h).

In Vancouver the disposition codes are divided into those which involved a petition (a hearing) and those which did not. For example, the code sheet has two different codes for "foster home;" one of these is with the "no hearing" codes and the other is with the "hearing" codes. The court can code more than one disposition onto the statistical sheet. We used the most serious disposition in the flow chart.

Juveniles who were placed in foster homes or group homes are coded in the final rows of the flow chart. With the exception of youths who were sent to institutions, all those not shown in the "place" columns were either in their own home or with a relative.

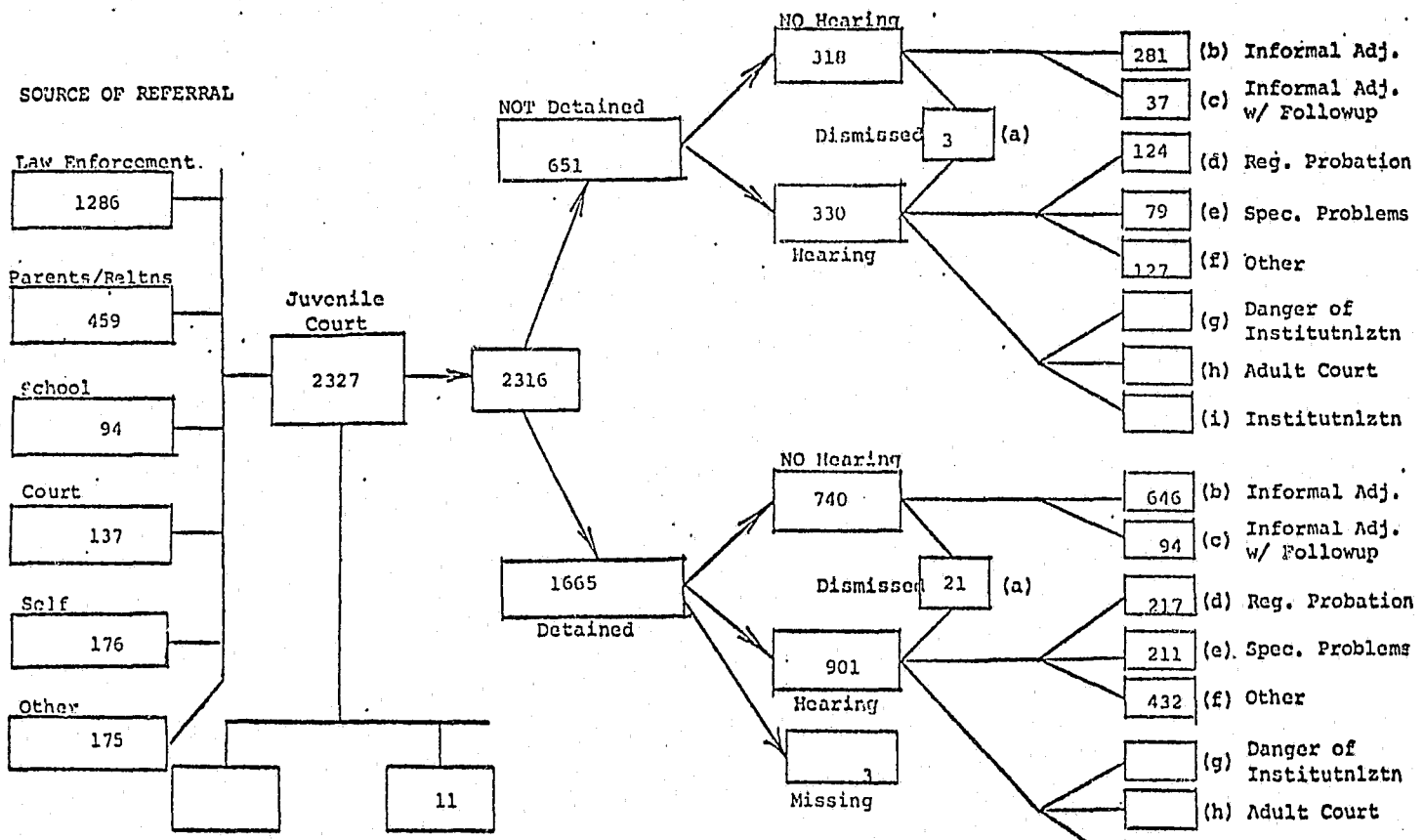
It should be noted that the Vancouver computerized data includes appearances for regularly scheduled review hearings that could be confused with offenses unless the code for review hearing is examined. The flow chart data shown here do not include appearances for review hearings.

ENTIRE PRE

VANCOUVER (CLARK COUNTY, WASHINGTON) JUVENILE COURT FLOW CHART

TYPE OF OFFENDER: STATUS OFFENDER (ALL)

TIME PERIOD: January 1974 through June 1976



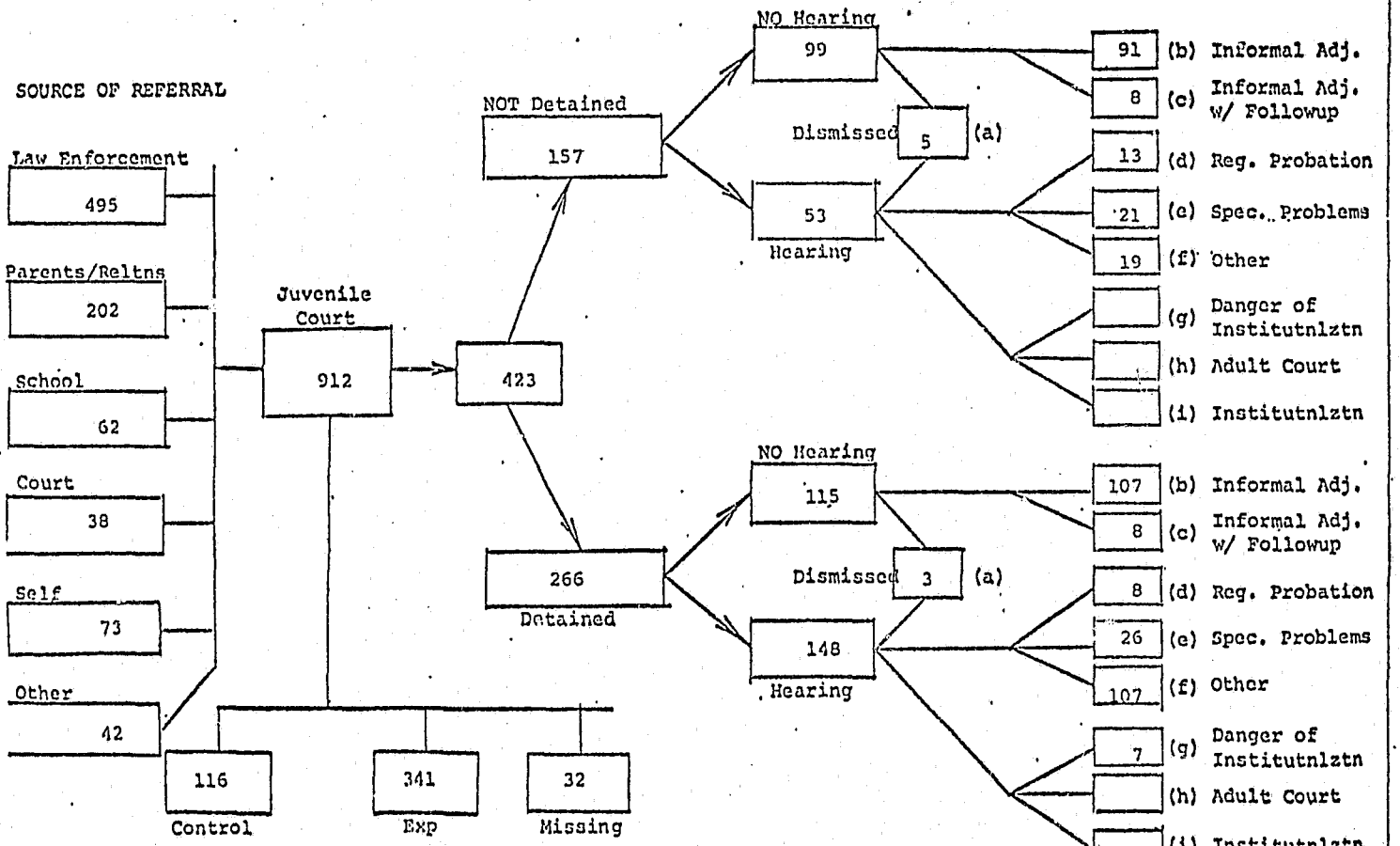

| PLACE | |
|---|---|
| foster home | group home |
| 9 | 9 |
| 8 | 19 |
| 25 | 34 |
| 20 | 47 |

ENTIRE POST

VANCOUVER (CLARK COUNTY, WASHINGTON) JUVENILE COURT FLOW CHART

TYPE OF OFFENDER: STATUS OFFENDER (INELIGIBLES)

TIME PERIOD: July 1976 to June 1977



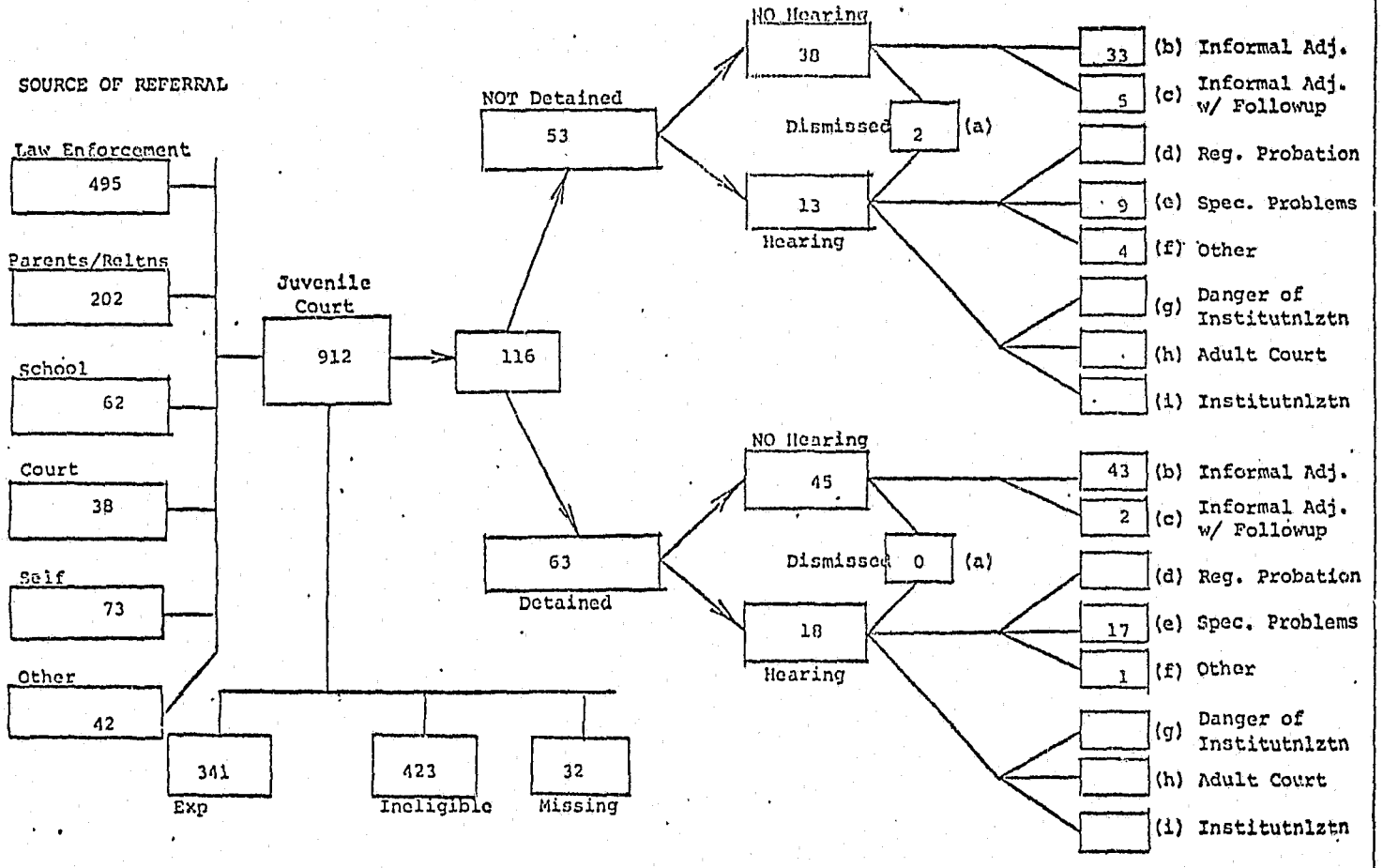

| | PLACE | |
|---|---|---|
| | foster home | group home |
| TOTALS | 7 | 16 |

ENTIRE POST

VANCOUVER (CLARK COUNTY, WASHINGTON) JUVENILE COURT FLOW CHART

TYPE OF OFFENDER: STATUS OFFENDER (CONTROL)

TIME PERIOD: July 1976 through June 1977



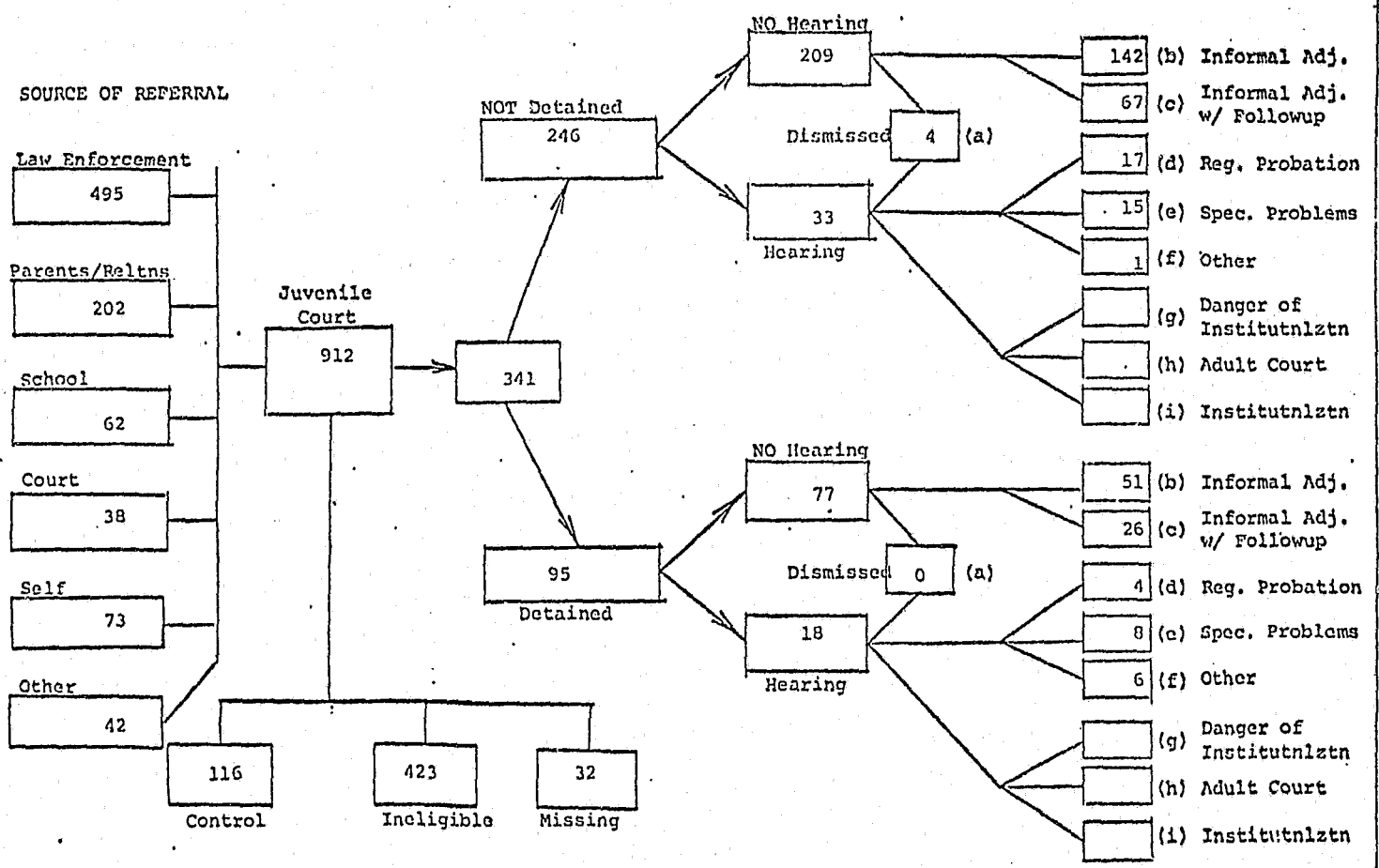

| | PLACE | |
|---|---|---|
| | foster home | group home |
| (b) Informal Adj. | | |
| (c) Informal Adj. w/ Followup | | |
| (d) Reg. Probation | | |
| (e) Spec. Problems | 1 | |
| (f) Other | | |
| (g) Danger of Institutnlztn | | |
| (h) Adult Court | | |
| (i) Institutnlztn | | |
| TOTALS | 1 | 1 |

ENTIRE POST

VANCOUVER (CLARK COUNTY, WASHINGTON) JUVENILE COURT FLOW CHART

TYPE OF OFFENDER: STATUS OFFENDER (EXP)

TIME PERIOD: July 1976 through June 1977



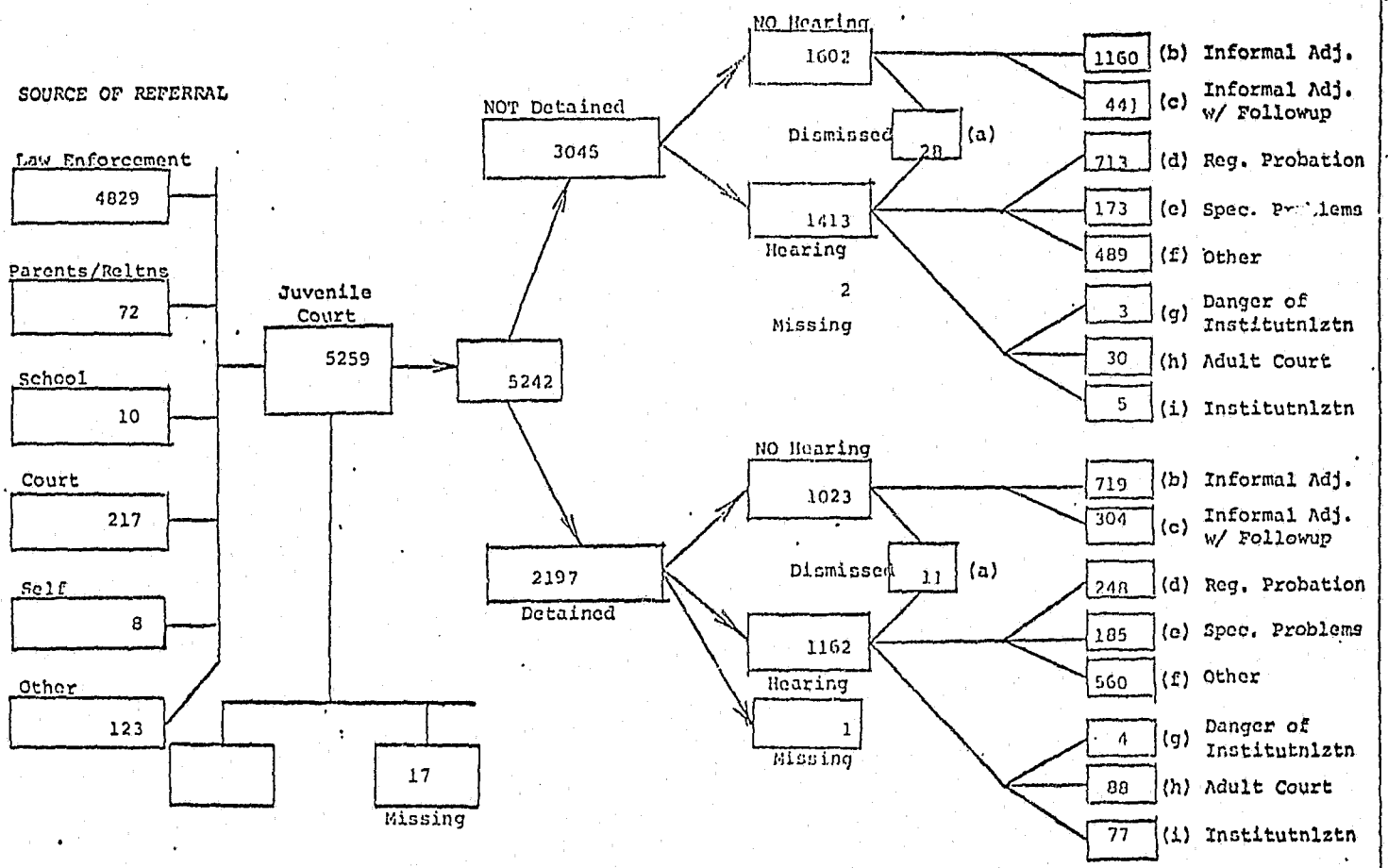

| | PLACE | |
|---|---|---|
| | foster home | group home |
| | | |
| | | |
| | | |
| | | |
| | 5 | 5 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | 2 | 3 |
| | | |
| | | |
| | | |
| | | |
| TOTALS | 7 | 8 |

ENTIRE PRE

VANCOUVER (CLARK COUNTY, WASHINGTON) JUVENILE COURT FLOW CHART

TYPE OF OFFENDER: _____ DELINQUENTS _____

TIME PERIOD: _____ January 1974 through June 1976 _____



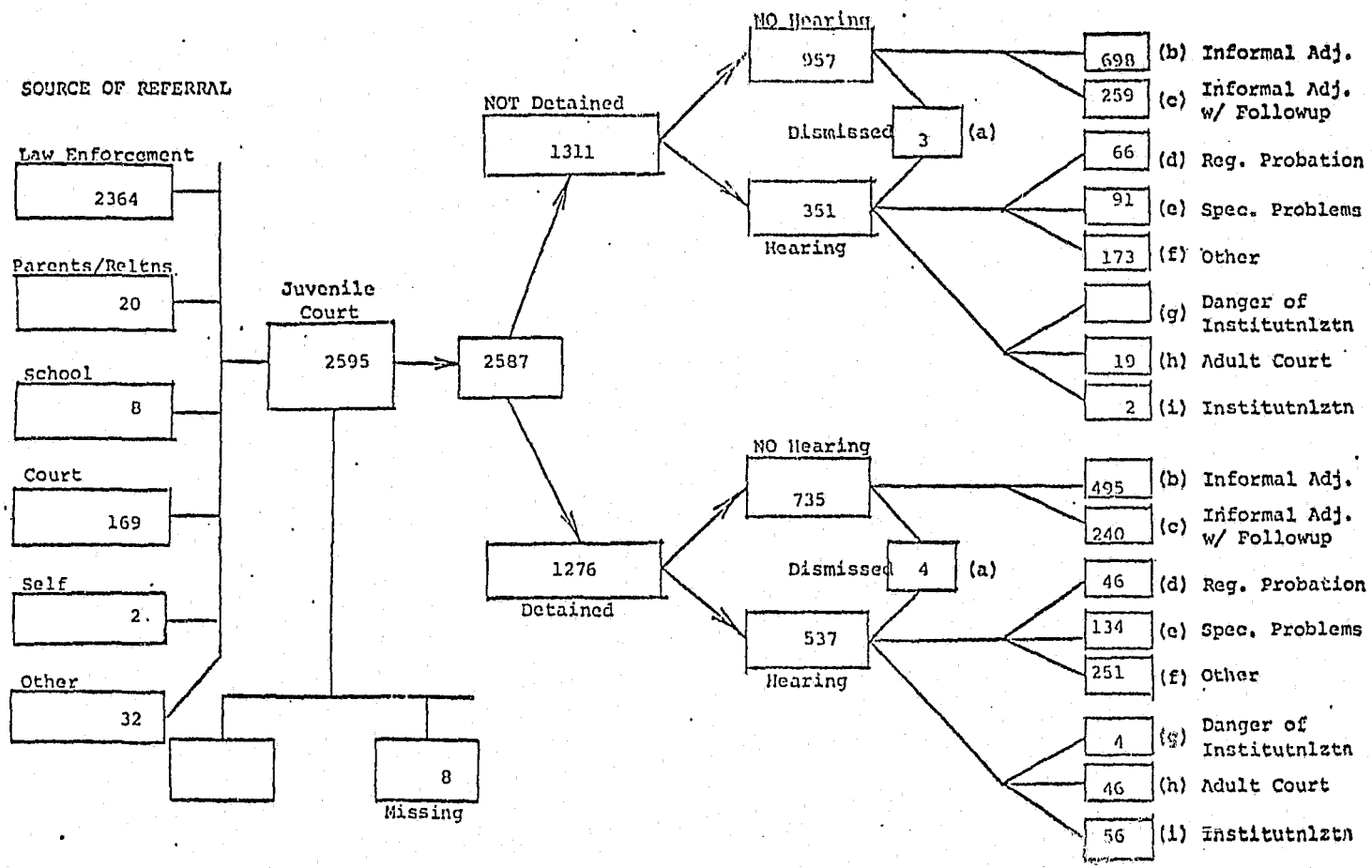

| PLACE | foster home | group home |
|---|---|---|
| (e) Spec. Problems | 4 | 8 |
| (f) Other | 16 | 17 |
| (e) Spec. Problems | 8 | 14 |
| (f) Other | 10 | 35 |
| TOTALS | 10 | 35 |

ENTIRE POST

VANCOUVER (CLARK COUNTY, WASHINGTON) JUVENILE COURT FLOW CHART

TYPE OF OFFENDER: DELINQUENTS

TIME PERIOD: July 1976 through June 1977




| PLACE | foster home | group home |
|---|---|---|
| (e) Spec. Problems | 2 | 4 |
| (f) Other | 1 | 2 |
| (g) Danger of Institutnlztn | | |
| (h) Adult Court | | |
| (i) Institutnlztn | | |
| (e) Spec. Problems | 5 | 12 |
| (f) Other | 3 | 20 |
| (g) Danger of Institutnlztn | | |
| (h) Adult Court | | |
| (i) Institutnlztn | | |
| TOTALS | 11 | 38 |

# APPENDIX B

## STATISTICAL RESULTS

## FROM INTERRUPTED TIME SERIES ANALYSIS

# APPENDIX B

## STATISTICAL RESULTS

## FROM INTERRUPTED TIME SERIES ANALYSIS

### KEY TO VARIABLE CODE NAMES

STATOFF = number of status offender referrals

RSTATOFF = proportion of status offender referrals

DELINQ = number of delinquent referrals

RDELINQ = proportion of delinquent referrals

SODET = number of status offenders detained per month

RSODET = proportion of status offenders detained per month

DELDET = number of delinquents detained

RDELDET = proportion of delinquents detained

RCONDET = proportion of control group detained

RINDET = proportion of ineligible group detained

RXDET = proportion of experimental group detained

SOPET = number of petitions filed on status offenders

RSOPET = proportion of total status offenders on whom petitions were filed

RXPET = proportion of experimental group youths on whom petitions filed

RCONPET = proportion of control group youths on whom petitions were filed

RINPET = proportion of ineligible group youths on whom petitions filed

# INTRODUCTION

There are three hypothesis usually tested with the single intervention time series design:

1. The intervention produces a change in the trend of the dependent variable (this is the first ANCOVA test, also known as Walker-Lev 1).

2. [If the first hypothesis is not accepted] There is an underlying trend in the dependent variable (the second ANCOVA test; also Walker-Lev 2).

3. [If the second hypothesis is not accepted] The intervention produced a change in the level of the dependent variable (the third ANCOVA test and Walker-Lev 3).

The SPSS multiple regression program, using dummy variables, provides the information needed to test all three of the above hypotheses, provided that the dummy variables are entered in a stepwise manner. The equation is:

$$Y = a + b_1 D_1 \qquad \text{Step 1}$$

$$Y = a + b_1 D_1 + b_2 \text{MONTH} \qquad \text{Step 2}$$

$$Y = a + b_1 D_1 + b_3 D_2 \text{MONTH} \qquad \text{Step 3}$$

where Y = the dependent variable (aggregated data, by month);

a = the intercept value (to be estimated);

b = the regression coefficient (to be estimated);

$D_1$ = dummy variable with pre=0, post=1;

MONTH = months (time) numbered from 1 (January 1974) to 42 (June 1977);

$D_2$MONTH = interaction term (month times $D_1$).

The procedure for testing these hypotheses is as follows.

Hypothesis One (change in slope - Walker-Lev 1)

1. Examine Step 3 of the regression (all three variables are in the equation).

2. The coefficient for $D_2$MONTH gives the post-intervention slope adjustment. The F ratio associated with this coefficient is the statistical test for hypothesis one. If $D_2$MONTH is significant, then the coefficient for MONTH gives the pre-intervention slope.

3. If $D_2$MONTH is not significant, then hypotheses two and three are tested.

Hypothesis Two (trend in dependent variable = Walker-Lev 2)

1. Examine Step 2 of the regression. At Step 2 only MONTH and $D_1$ will have been entered with the equation. ($D_2$MONTH is regarded as error in Step 2.)

2. The coefficient for MONTH gives the slope (trend) of the dependent variable over time. The F ratio associated with this coefficient is the statistical test for hypothesis two (whether the trend is significantly different from zero) and is identical to Walker-Lev 2).

Hypothesis Three (change in intercept = Walker-Lev 3)

1. Remain on Step 2 of the regression.

2. The coefficient for $D_1$ gives the post-intervention intercept adjustment. The F ratio associated with this coefficient is the statistical test of hypothesis three and is identical to Walker-Lev 3.

The Durbin-Watson (DW) test for significant autocorrelation is used on the residuals from the equation. If the test indicates that there is a significant autocorrelation problem, the equation is re-estimated using an OLS approximation procedure. If the DW is above 1.50, there is generally no autocorrelation problem, but if it is below this the equation may be in error and is re-estimated.

Rather convincing arguments can be made that ANCOVA is not the best procedure for analyzing time series data of social phenomena and that the ARIMA models are more appropriate. This is particularly true for data, such as crime rates, that are not "controlled" in any deterministic way, but instead tend to move upward or downward, through time, as the product of random "shocks" to the system which are felt at one or a few subsequent time points. Because the ARIMA models contain lagged values of the dependent variable rather than containing a "time" variable in the equation, they are more appropriate for such data. The argument is somewhat less convincing for social science data that are controlled (or more nearly controlled) by policy decisions--such as the number of offenders detained at the court--and where it is more reasonable to expect deterministic patterns in the data. The choice in this evaluation to use ANCOVA rather than one of the ARIMA models was made primarily because the statistical computerized routines for the latter were not available. In ARIMA models, the parameters are estimated using maximum liklihood rather than ordinary least squares. It should be emphasized, however, that if the data meet the assumptions of ANCOVA (and multiple regression analysis), then these approaches yield reliable estimates of the intercept, slope (trend), and the impact of the program variable.

The assumption of ANCOVA that most often is violated when it is used for time series analysis is that the observations are not independent, but instead are autocorrelated. As noted in the text of the report, this inflates the value of F and will tend to produce a "finding" of significant

differences when, in fact, the differences were not significant.

This problem can be overcome by testing the residuals from the equation for autocorrelation. If the autocorrelation is significant, the autoregression coefficient in the error term is calculated and the equation is re-estimated using SAS statistical routine. This enters lagged value of the dependent variable in the equation, weights it with the autoregressive coefficient (or order 1, 2, or whatever was specified) and re-estimates the equation. The autoregressive component can be specified as order 1, 2, or whatever is needed. The SAS program shows the autocorrelation of the data at lag 1, lag 2, and for however many lags were specified. This information is used to estimate the appropriate order of the autoregressive component. In practice, we continued specifying one additional lag until the results of the equation did not change, indicating that the autoregressive component of that order had no effect whatsoever on the results. Generally, a lag 1 specification was sufficient for equations that originally contained autocorrelation in the residuals. Most of the equations did not contain statistically significant autocorrelation and did not have to be re-estimated.

Another problem with using ANCOVA and a time variable (months, numbered 1, 2, 3, and so on) is that when the time series becomes quite long, it is clearly inappropriate to project a linear trend for many types of social phenomena. This is especially true if the variable is a percentage or some other kind of value that is subject to ceiling and floor effects. But, when the time series is shorter, the use of a linear trend estimate is not at all unreasonable because the projections do not extend for ridiculously long periods of time. The ARIMA models generally require considerably

longer time series (50 or more data points are recommended for the pre-intervention data) than do the ANCOVA models. Thus, given the relatively short time series used in this evaluation and the attention given to meeting the assumption of independence in observations, the ANCOVA tests can be expected to have considerable reliability.

## ANALYSIS OF DATA

### Referrals to the Juvenile Court

The number of total referrals to the court is defined as the sum of status offender referrals and delinquent referrals (excluding Dependency A referrals). In the post-program period the status offenders are composed of three groups--the experimental group, the control group, and the ineligible group.

The number of status offenders referred to the court each month exhibited no obvious or statistically significant trend between January 1974 and June 1977. The DSO intervention did not alter the level or trend of the pre-program data.

$$\text{STATOFF} = 79.67 + 74.69\ D_1 - .14\ \text{MONTH} - 2.011\ D_2\text{MONTH}$$

$$F = \quad (2.989) \quad (.211) \quad (2.780)$$

$$R^2 = .08844 \quad dw = 1.91 \quad N = 42$$

The proportion of status offender referrals declined throughout the entire period of observation with no effect (F for $D_1$, $D_2$MONTH<.10) on this trend attributable to the DSO program.

$$\text{RSTATOFF} = .35 - .0024\ \text{MONTH} \qquad R^2 = .37108$$

$$(23.601) \qquad dw = 1.55$$

$$\bar{X} = .2953$$

This equation translates into a .24% decline per month in the percent of total court referrals who are status offenders.

Delinquent referral trends from January 1974 through June 1977 show clear increases in both the number and the proportion of delinquents referred to the court.

$$\text{DELINQ} = 144.82 + 1.78\ \text{MONTH} \qquad R^2=.37253$$

$$F = \qquad (17.704) \qquad dw=1.54985$$

$$\bar{X} = .7047$$

The number of delinquent referrals increased by almost two youths per month. The DSO program had no observable effect on this trend (F for $D_1$, $D_2$MONTH<.275).

The proportion of delinquents to the total non-dependency referrals increased by approximately .25% per month.

$$\text{RDELINQ} = .65 + .00239\ \text{MONTH} \qquad R^2=.37253$$

$$(23.601) \qquad dw=1.54985$$

$$\bar{X} = .7047$$

Detention Trends for All Status Offenders

$$\text{SODET} = 50.26 + 91.05\ D_1 + .338\ \text{MONTH} - 3.21\ D_2\text{MONTH}$$

$$F = \qquad (8.560) \qquad (2.528) \qquad (13.603)$$

$$R^2=.53688 \qquad dw=1.75$$

The number of status offenders detained appears to have risen in the period between January 1974 and the summer months of 1975 and then fallen from the summer of 1975 to the end of the program, with an accelleration of this decline occurring at the beginning of the program. Given this pattern of detention trends, the linear regression is fooled by the parabolic form of the data and was therefore re-estimated below using a multiple intercept; one for July 1975 ($D_3$ and $D_4$MONTH) and another for the startup of the DSO program ($D_1$ and $D_2$MONTH).

$$\text{SODET} = 40.33 + 100.57D_1 + 17.57D_3 + 1.60\text{MONTH} - 4.46D_2\text{MONTH} - 1.69D_4\text{MONTH}$$

$$F = \qquad (13.228) \quad (0.853) \quad (15.445) \quad (27.513) \quad (3.965)$$

$$R^2=.65447 \qquad dw=2.24$$

Given the borderline significance of $D_4$MONTH, the multiple intercept interpretation to the detention pattern must be used with considerable caution if used alone. However, data below verify the validity of this concept.

The proportion of total status offenders detained shows the same parabolic trend described, but it becomes even more pronounced. The single intercept regression produces the following equation which is obviously fooled by the slope of the distribution.

$$\text{RSODET} = .64 + .74\ D_1 + .0053\ \text{MONTH} - .03\ D_2\text{MONTH}$$

$$F = \quad (8.454) \quad (9.413) \quad (17.768)$$

$$R^2 = .71584 \qquad dw = 1.20$$

By using this form, we are unable to separate the effects of whatever event occurred in the summer of 1975 and the startup of the DSO program. Therefore, the equation was re-estimated as above using multiple dummies.

$$\text{RSODET} = .52 + .85D_1 + .40D_3 + .019\text{MONTH} - .044D_2\text{MONTH} - .026D_4\text{MONTH}$$

$$F = \quad (22.425) \quad (10.517) \quad (54.297) \quad (63.406) \quad (23.670)$$

$$R^2 = .86568 \qquad dw = 2.17$$

It appears that both the July 1975 dummy and the DSO program account for significant reductions in the proportion of status offenders detained over time. Essentially, the July 1975 dummy is simply embodying the parabolic shape of this detention trend with the peak of the parabola being the summer of 1975. The summary contains an analysis of this period.

Detention Trends for Status Offender Groups

In spite of the small number of time points, there appears to be a significant trend of declining proportions of youths detained in the control and ineligible groups.

$$RCONDET = 2.91 - .066\ MONTH \qquad R^2 = .72566$$
$$(15.840) \qquad dw = 1.69$$

$$RINDET = 1.11 - .014\ MONTH \qquad R^2 = .24008$$
$$(3.159) \qquad dw = 1.4660$$

The rates of decline for the control and ineligible groups were approximately 1.4% and 6.6% respectively. The coefficient for MONTH on RINDET is significant at approximately the .07 level (one tailed).

Although there was a divergence in the proportion of youths detained between the ineligibles and the control group (50% vs 100% respectively for the two groups), both the control and ineligible groups had approximately a 50% detention rate at the last observation point for each group in March 1977 and June 1977 respectively.

The experimental group had considerable variance in the proportion of experimental group youths who were detained. Consequently, no trend emerged during the program period.

$$RXDET = .664 - .0096\ MONTH \qquad R^2 = .09113$$
$$(1.03) \qquad dw = 1.64$$

The mean proportion detained in the experimental group was .312 compared with .646 for the control group and .600 for the ineligibles.

Petitions Filed on All Status Offenders

The number of petitions filed on status offenders declined throughout the period from January 1974 through June 1977.

$$SOPET = 51.64 + 81.54\ D_1 - .67\ MONTH - 2.47\ D_2 MONTH$$
$$(9.362) \qquad (11.590) \qquad (9.542)$$
$$R^2 = .59204 \qquad dw = 2.07$$

The introduction of the DSO program produced a further increase in the already significant decline in the number of petitions filed, accelerating the pre-program decline of .67 petitions per month to about three petitions per month.

The trends described above are replicated for the proportion of total status offenders on whom petitions were filed.

$$RSOPET = .65 + .83\ D_1 - .0077\ MONTH - .024\ D_2MONTH$$
$$(6.543) \quad (11.098) \quad (6.993)$$
$$R^2=.60221 \quad dw=1.85$$

As above, the rate of decline in the number of petitions filed is just about tripled by the introduction of the DSO program.

Petitions Filed on Status Offenders Groups

The proportion of experimental group youths on whom petitions were filed declined in the 12 months after DSO began.

$$RXPET = 1.32 - .031\ MONTH \quad R^2=.41461$$
$$(7.083) \quad dw=2.39$$

his translates into a 3% decline per month in the number of experimental group youths on whom petitions were filed.

The control group data also shows a downward trend in the proportion of status offenders on whom petitions were filed.

$$RCONPET = 1.94 - .046\ MONTH \quad R^2=.38049$$
$$(3.685) \quad dw=2.19$$

This rate of decline in petitions for control group status offenders is about 4.5% per month.

The equation for ineligible status offenders shows a decline in the proportion on whom petitions were filed.

$$\text{RINPET} = 1.11 - .01789\ \text{MONTH} \qquad R^2 = .2834$$

$$(3.955) \qquad \bar{X} = .458$$

END