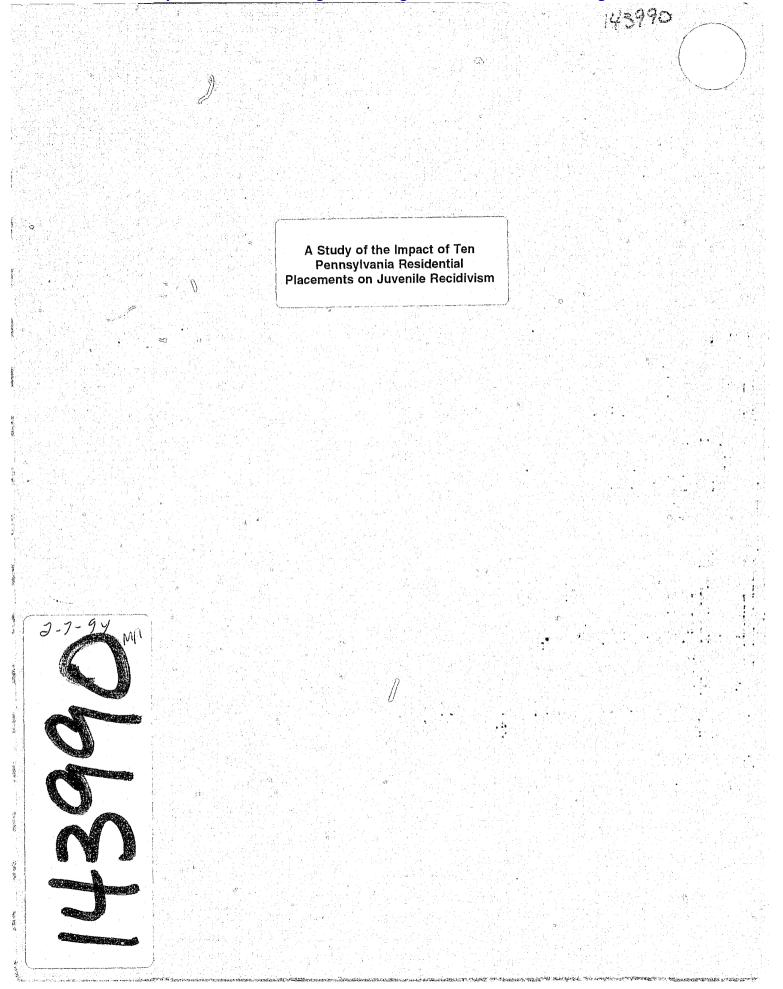
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A STUDY OF THE IMPACT OF TEN PENNSYLVANIA RESIDENTIAL

PLACEMENTS ON JUVENILE RECIDIVISM

Prepared for

The Pennsylvania Juvenile Court Judges' Commission

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Hon. R. Stanton Wettick, Chairman, Juvenile Court Judges' Commission Marvin Wolfgang, The Wharton School, University of Pennsylvania

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A STUDY OF THE IMPACT OF TEN PENNSYLVANIA RESIDENTIAL PLACEMENTS ON JUVENILE RECIDIVISM

The effectiveness of a juvenile justice system is frequently measured by its ability to prevent juvenile offenders, once identified, from continuing to engage in crime. This study targets the subgroup of juvenile offenders considered sufficiently serious or dangerous to require removal from their communities and incrceration in a public or private residential facility. It examines recidivism among juveniles released from 10 selected residential placements in Pennsylvania in an attempt to determine the relative effectiveness of each placement in influencing recidivism patterns among its residents. The following are the key findings of the study:

- o By the end of the follow-up period, 55 percent of the study sample had been arrested; 48 percent had been arrested within the first 12 months.
- o Juveniles with more extensive arrest records were more likely to be arrested, convicted and incarcerated after release from placement than juveniles with fewer pre-placement arrests.
- o Juveniles with more extensive delinquent placement histories were more likely to be arrested, convicted, and incarcerated after release than juveniles with fewer delinquent placements.
- o The younger a juvenile was at first arrest, the more likely he was to be arrested, convicted, and incarcerated after release.
- o The older a juvenile was at release from placement, the less likely he was to be arrested, convicted, and incarcerated after release.
- o Poor performance in school and difficulties in adjusting to the residential placement were related to more recidivism behavior.
- o Race, chemical dependency, and family stability were not found to predict recidivism in the study sample.
- o No statistically significant differences on post-release arrest, conviction, or incarceration were found among the groups released from the ten residential placements.

Introduction

The decision to send an adjudicated juvenile offender to a residential correctional facility is a critical, and not a common, event. In addition to a policy of using the "least restrictive alternative" in meting out dispositions, costs for placing juveniles in residential facilities are significant. Counties pay between \$65.00 and \$161.00 per day to place a juvenile in a residential facility, resulting in an average (9 month) expenditure of \$18,000 to \$40,000 per child. Thus it should not be surprising that during the 1984 calendar year, for example, the Pennnsylvania juvenile court system collectively handled 25,688 dispositions while only 2,978 of these, or 11.59 percent, resulted in residential placements.

While the predominant tendency of probation officers and juvenile court judges may be to find alternatives to residential placement, there are obviously occasions which merit the removal of a delinquent child to a residential facility. In these instances it may be felt that a juvenile offender merits residential placement either by the severity of his/her offense and/or criminal history or because the offender is in need of the type of rehabilitative treatment only available at a residential facility, or both. Whatever the reason, once the decision to place has been reached, the judge is faced with the responsibility of selecting from among the over 300 residential facilities available in Pennsylvania.

Making this choice is difficult. Residential programs differ markedly from one another with respect to their size, location, treatment philosophy, and services provided, not to mention cost. Moreover, the objective of sending a juvenile offender to a residential placement is not merely to remove him or her from the community but also to provide the offender with opportunities to engage in the rehabilitative process.

Considering the wide range of placements available in the state of Pennsylvania, it is important for individuals responsible for placement decisions to have the most comprehensive information concerning each residential facility's effectiveness. Of course, the first issue that must be addressed in an attempt to evaluate effectiveness is: effective for what? It could be argued that residential placements available throughout the state of Pennyslvania focus on many different needs and concerns of offenders, communities, and the juvenile justice system. Some may be viewed as superior in providing residents with quality educational experiences, others may excel in treating chemical dependency, while still others may be viewed as providing the community with the greatest degree of safety. While specific strengths of residential placements may differ, there is one type of outcome most generally accepted as an indicator of correctional effectiveness- reduced recidivism. Most individuals responsible for sending offenders to residential placement facilities believe, or at least hope, that the juvenile's experience at the facility will reduce his/her likelihood of engaging in criminal behavior after release. Moreover, in the choice of one placement over another for a particular juvenile, there is the implicit assumption that placements are differentially effective in abilities to reduce or eliminate recidivism. It was upon this assumption that the research to be reported in this document was funded.

The Research Problem

The objective of this study is to measure the influence of various institutional placements on the post-release criminal behavior patterns of selected residents released from these placements. Specifically, the research addresses the following questions:

- o What factors reliably predict: (1) the likelihood that residents will return to criminal involvement and (2) the extent of that involvement?
- o Does placement in a particular institution increase or decrease a juvenile's risk of recidivism?
- o Does placement in a particular institution increase or decrease the period of time a juvenile would be expected to spend in the community before returning to criminal behavior?
- o Does placement in a particular institution increase or decrease the risk of recidivism for certain types of juveniles?

While these questions seem rather straightforward, they require complex solutions if one desires to address them carefully. The major complicating factor is selection bias, that is, the fact that juveniles are not assigned to institutions in Pennsylvania in a random fashion. On the contrary, probation officers and judges carefully consider the "match" between placement strengths and the needs of the offender in making placement decisions. In doing so, for example, juveniles with extensive delinquent histories will be more likely to be sent to certain placements, while juveniles with less serious delinquent backgrounds will be sent to others. Therefore, bias is introduced in the process of selecting juveniles for placements.

What makes selection bias problematic from the standpoint of the evaluation of correctional treatment effectiveness is that it is quite probable that at least some of the criteria used to assign individuals to particular placments are related to the outcome measure of interest, in this case, recidivism. It is quite logical that juveniles would be assigned to different residential placements on the basis of criteria such as age, criminal history, delinquent placement history, and school adjustment, for example. Indeed, in the case of assigning juveniles to secure facilities in Pennsylvania, state Department of Public Welfare policy stipulates that certain criteria must be present in the juvenile's background before such a placement can be made. These criteria, and others which may also be used in placement decisions have been documented in numerous studies as predictors of recidivism (see Sechrest and Brown, 1979, for a review of these studies).

The potential outcome of such selection bias is that the groups from the residential placements being evaluated may differ from one another on their recidivism risk <u>before</u> exposure to the placements themselves. Thus, it is not possible to accurately assess the impact of the placement on recidivism without first taking into account the effects of these other factors.

Researchers are virtually unanimous in their endorsement of the socalled "controlled experiment" as the design of choice if one wants to obtain definitive answers to questions of the effectiveness of correctional treatments. Involving random assignment of cases to institutions, it insures that all facilities contain equivalent mixes of residents with "good" and "poor" recidivism potential. This equivalence of resident populations on background risk factors implies that differences in subsequent recidivism would be attributable to "what happened" to those residents while they were incarcerated in the institutions (assuming other factors of treatment, for example, time served, are also equivalent across institutions).

However, difficulties in performing controlled experiments are many; they require long time periods to follow participants through the treatments; they demand the cooperation of many agents in conforming to the experimental design; and oftentimes, moral and ethical questions persist concerning the witholding of treatment to some participants. Consequently, despite their potential, true experiments have not generally been used in the evaluation of correctional treatments (Farrington, 1983). Nor was a controlled experiment attempted in the present study. Rather, the study was designed to gather sufficent data on potential "confounding" variables to enable the investigators to account for their effects statistically in the data analysis.

Methodology

Selection of Placements for the Study

Ten residential placement facilities in Pennsylvania were selected for the present study. They include (number of cases): Vision Quest, Inc. (52), George Junior Republic (58), Glen Mills School (54), St. Gabriel's Hall (50), Youth Development Center (YDC) Bensalem Residential (52), YDC Loysville (51), YDC New Castle Residential (56), Youth Forestry Camp #2 (54), YDC Bensalem Secure (57), and YDC New Castle Secure (43). These particular facilities were selected for several reasons.

Size of placement. First and most importantly, these facilities comprise some of the largest residential placements in Pennsylvania; and due to research design considerations, only placements accepting a minimum of 50 referrals per year could be considered.

<u>Diversity of placements</u>. Second, an attempt was made to obtain a balance of public and private placements and to include placements with some geographic diversity.

<u>Exclusion of placements for females</u>. Third, a decision was made to exclude placements for female delinquents due to their small sizes.

Exclusion of non-residential placements. Fourth, the scope of the study was limited to an evaluation of residential placements, thus excluding community placements from consideration.

Selection of Cases

Cases were selected from the 1984 data base of the Center for Juvenile Justice Training and Research, which contains information concerning all individuals sent to the sample placements during that calendar year.

Random samples of 75 cases were drawn for each facility, with the expectation that from these, 60 useable cases per facility could be located. Three facilities had received fewer than 75 commitments in 1984 (Youth Forestry Camp #2 (YFC #2), Bensalem Residential, and Bensalem Secure). For these facilities, every case committed in 1984 was considered part of the original sample. A total of 696 cases (from 55 to 75 per institution) comprised the original sample.

Once in the field, coders were forced to disqualify a considerable number of cases for various reasons. Cases were not used in the study if they: (1) had not been released from the sample placement for at least 12 months [1]; (2) had been transferred to another placement for more than one month before being released; (3) had never been at the sample placement; (4) had their case closed and their records destroyed; or (5) if their case record could not be located.

For each disqualified case, attempts were made to locate a replacement case, when possible from same county. Replacements were randomly selected from the list of remaining (unsampled) cases placed within each facility during 1984. In the case of two facilities, YFC #2 and Bensalem Residential, locating replacement cases necessitated the inclusion of several juveniles placed in 1983, and some from early 1985, as all available 1984 cases had either been coded or were disqualified. By the completion of data collection, useable data had been obtained for a total of 527 cases from 31 of the 67 counties in Pennsylvania.

In addition to the 696 original cases, over 200 potential replacement cases were considered. Of these, 188 were coded for inclusion in the sample. In all, 527 useable cases were obtained, while over 280 were rejected.

Tests for Potential Sources of Bias

As in any research of this type, there was a concern that the rejection of certain cases might introduce sources of bias into the composition of institutional sub-samples. And in fact, there were circumstances related to the rejection of cases from certain placements which made this a serious concern. A brief discussion of this issue follows.

In Allegheny County Family Court a considerable number of case files were unavailable because they had been routinely purged (the Court retained a face sheet, but this was not detailed enough to permit coding). Court staff assisting the coders explained that once a probationer reached 18 years of age and had maintained a period of successful adjustment, his case was normally closed and the record destroyed. It should be noted that this court often maintains juveniles in placement and under supervision beyond their eighteenth birthday.

The researchers were concerned because 14 of the cases in the original sub-sample for YDC-New Castle Secure had been purged (no other sample placement lost more than 4 cases for this reason). This raised the possibility that the "lost" cases represented juveniles who had likely had a successful post-release adjustment, and that their exclusion would bias the eventual sub-sample. In an effort to test this theory, the researchers checked the adult arrest records of these 14 cases. The results showed that four of the 14 had at least one arrest. This represents the same percentage (28.5 percent) of the overall sample which had at least one adult arrest (150 of 527). This suggests that the exclusion of these 14 cases did not bias the YDC-New Castle Secure sub-sample.

In Philadelphia County coders experienced a great deal of difficulty in locating case files. A total of 72 cases from Philadelphia were excluded from the sample for this reason alone. Unlike the situtation in Allegheny County, there was no systematic pattern to the "lost" files; some were known to be active cases and others were closed. Thus there was little concern that this problem introduced any systematic bias into the sub-samples of placements which contained large proportions of Philadelphia juveniles.

The unlocated Philadelphia files did contribute to another problem concerning the sub-samples for YDC Bensalem Residential and YDC Bensalem Secure. The pool of 1984 commitments to these two programs was exhausted long before the target number of 50 useable cases was reached. In order to obtain an adequate number of useable cases, the files of juveniles committed in early 1985 were obtained and coded. By limiting the search to the first few months of 1985, an adequate follow-up period could still be assured. Court staff provided a chronological list of commitments beginning in January 1985, and the cases were simply checked in chronological order until the target number had been located and coded for each sample placement.

A final source of concern was cases excluded from the sample because the juveniles were transferred out of sample placements due to inappropriate behavior, such as rule violations and escapes. A total of 68 cases were rejected for this reason. The reader will note later in this paper that such institutional misconduct did in fact correlate with increased likelihood of post-release recidivism. This raises the possibility that sample placements from which significant numbers of cases were rejected for this reason ended up with sub-samples which were biased in that they contained fewer recidivism-prone cases.

The number of cases excluded for this reason varied from a low of two at St. Gabriel's to a high of 14 at YDC-Loysville. A prior concern that the private programs would have "lost" significantly more cases for this reason than the public programs proved unfounded. The four private programs lost an average of five cases each and the six public programs an average of eight.

Representativeness of the Sample

The ten institutions selected for study received a total of 1405 commitments in 1984. This represents 47 percent of the 2978 juveniles committed to any residential placement in 1984. The most conservative interpretation would be that the sample is representative of the population committed to any of these ten placements. And in light of the above discussion of excluded cases, a more accurate statement would be that the sample is representative of juveniles who were committed to and appropriately released from those ten placements.

The placements in our study are considered public institutions, private institutions, and public secure facilities. The total number of juveniles committed to any private or public institution or public secure facility in 1984 was 1811, or 61 percent of all residential commitments. The most liberal interpretation of our sample would be that it is representative of this population. The facilities in these three categories not represented in our sample include small secure facilities (two public and one private), one public Youth Forestry Camp, and several private institutions of varying sizes.

A separate issue is whether our sample of 1984 commitments may be considered representative of the populations of juveniles sent to residential facilities in more recent years. The researchers are not aware of any historical factors which would jeopardize this assumption. The proportion of delinquency referrals committed to institutions and secure facilities combined has remained very stable over the past ten years at about 7 percent. In addition, all of the facilities in the study sample are still in operation.

Data Sources

<u>Probation office case files</u>. From July to November, 1986, trained coders visited the probation offices of all counties containing at least seven cases in the sample. They then transferred information from each juvenile's comprehensive case file to specialized coding forms prepared by the investigators. This instrument was developed to obtain detailed information concerning six general areas: (1) demographics; (2) criminal history; (3) social and emotional history; (4) juvenile's experience in placement; (5) juvenile's postplacement adjustment; and (6) juvenile's post-release criminal behavior.

In addition to gathering recidivism information from the juvenile's probation office case file, two other sources of data concerning recidivism were consulted.

<u>State Police Data Base</u>. First, as arrests after juveniles turned 18 would not be entered in a juvenile probation case file, the Pennsylvania State Police performed a database search on all 527 juveniles in the sample. This search was performed in early December, 1986.

<u>Juvenile Court Judges' Commission Data Base</u>. In addition, a search of the 1984 and 1985 data bases of the Center for Juvenile Justice Training and Research yielded some additional information concerning referrals which had not been recorded in the individual juvenile case files.

The Follow-up Period

The follow-up period, or amount of time during which an individual's post-release behavior was monitored, differs across the cases in the sample. This is the result of the fact that cases were selected on the basis of the dates they entered the sample placements, not the dates they were released. Some individuals were maintained in their sample placements for longer periods than others, and, even though mostly 1984 referrals were included in the sample, some entered placements as much as a year before others.

Thus, follow-up periods for cases in the sample range from a minimum of six months to a maximum of 40 months. Follow-up data for at least the first 12 months after release are available for 92 percent of the sample. A majority of the cases, 62 percent, were followed for at least 18 months.

Defining and Measuring Recidivism

Recidivism has been defined and measured in various ways, with each definition potentially producing substantially different results. The present study uses two types of recidivism measures, with several definitions within each type. The first type, which will be covered in the first part of the report, consists of <u>static measures</u>, which do not take the timing of the incidents into account. The second type, which will be discussed in Part IV of the report, concerns <u>survival</u> <u>over time</u>. The static measures include:

1. <u>Number of arrests after release</u>, which refers to the total number of times an individual is arrested for a criminal offense following release from placement during his follow-up period. Summary offenses and probation violations were excluded.

2. <u>Number of convictions after release</u>, which refers to the number of times an individual is convicted during the follow-up period.

3. <u>Number of incarcerations after release</u>, which refers to the number of times an individual is placed in a residential facility during the follow-up period.

4. <u>Rate of arrests</u>, which refers to the number of arrests <u>per year</u> occuring to an individual during his follow-up period. This measure takes into account follow-up period variation.

5. <u>Number of arrests during the first 12 months</u>, which refers to the total number of arrests during the first 12 month period, thus taking into account individual differences in lengths of follow-up.

No distinctions were made between cases handled by the juvenile and adult justice systems. Thus, regardless of whether a releasee was arrested and then adjudicated in juvenile court or convicted in adult court, the case was coded as having been convicted.

Each recidivism measure contains its own weaknesses. For example, in most studies in which follow-up periods differ in length for various cases, a simple count of arrests should yield higher numbers for cases tracked for longer periods of time. It could also be argued that convictions are more valid indicators of recidivism than arrests, which may reflect the behavior of the police and not the juvenile.

On the other hand, there is often a long lag time between arrest and conviction. If the follow-up period ends before a conviction can be coded, incomplete information would be maintained. This problem may be particularly acute for cases in certain jurisdictions where case processing time is longer. It may also be more serious for cases processed as adults, as the adult system routinely allows more time for case processing than does the juvenile system.

In this study researchers attempted to broaden the validity and reliability of the findings by including several conventional measures of recidivism. Considering the potential problems outlined above, the researchers consider the arrest data as more reliable than the conviction and incarceration data.

Overview of Study Results

The remainder of this report presents detailed findings from the Recidivism Study. These findings are presented in the following six sections:

I. A profile of the study sample, focusing on the six categories of variables: demographics, criminal history, social history, sample placement experiences, post-release experiences, and post-release criminal behavior.

II. Profiles of sample placement groups on the above six categories, including comparisons of groups on critical pre-placement variables (e.g. criminal history) and on the static recidivism measures. III. Identification of critical variables predictive of recidivism (using static measures).

IV. Analyses of the effects of the sample placements on recidivism after selection effects had been accounted for.

V. Investigations of potential impacts of the ten sample placements on specific types of juveniles.

VI. Analyses of the effects of institutional placement on recidivism patterns over time with a methodology especially suited to the data, failure rate analysis using the proportional hazards model.

I. Recidivism Study Sample Profile

Findings discussed in this section are illustrated in Table 1, which corresponds to the order of presentation used in the text of the report.

Demographic Chararacteristics

The majority (60 percent) of cases in the sample are black, compared to 33 percent white and 6.5 percent Hispanic and other. This breakdown reflects, in part, the selection of four placements which receive disproportionately larger numbers from counties which refer proportionately more blacks, Philadelphia and Allegheny.

Well over half of the cases studied (68.5 percent) were referred by Philadelphia and Allegheny counties. The remainder of the cases are approximately equally distributed among rural, suburban and other urban counties [2].

Criminal History Variables

Variables described in this section apply to the sample juveniles prior to their sample placements. In general, the study sample appears to be comprised of juveniles who were relatively experienced in delinquent behavior prior to their sample placements. For example, most (67.9 percent) had been arrested before they turned 15; 27 percent had been arrested before their 13th birthday.

In addition, most (70.6 percent) had been arrested at least three times prior to the sample placement; and the majority (56.9 percent) had been previously placed for delinquency in at least one other residential facility.

TABLE 1

Profile of Recidivism Study Sample

V

(n=527)

	7.	(n)	
DEMOGRAPHIC VARIABLES			
Race:			
White	33.4	(176)	
Black	60.2	(317)	
Other	6.5	(34)	
Home Community:			
Rural	12.9	(68)	
Suburban	11.6	(61)	
Other Urban	12.0	(63)	
Allegheny Co.	28.8	(152)	
Philadelphia	34.7	(183)	
CRIMINAL HISTORY VARIABLES			
Age at First Arrest:			
Under 13 Years	26.2	(138)	
13-14 Years	39.7	(209)	
15 Years or Over	34.2	(180)	
Number of Arrests Prior			
to Sample Placement:		· · · · · · · · · · · · · · · · · · ·	
1-2	29.4	(155)	
3~4	33.8	(178)	
5 or More	36.8	(194)	
Number of Convictions			
Prior to Sample Placement:			
0-1	20.3	(107)	
2-3	44.0	(232)	
4 or More	35.7	(188)	
Number of Delignment			
Number of Delinquent Placements (including			
sample placement):			
One	43.1	(227)	
Two	28.5	(150)	
Three or More	28.5	(150)	
A			
Annual Arrest Rate	•	· · · · ·	
Prior to Sample Placement "	30 0	(172)	
.4 or below	32.8	(173)	
.41 to .76 .77 and over	34.9	(184)	
.// and over	32.3	(170)	

.

	7.	(n)	
Most Serious Alleged			
Offense Prior to	1 * · · · ·		
Sample Placement:	10	/ == \	
Non-Criminal & Drug	10.4	(55)	
Property & Other	34.5	(182)	
Person	55.0	(290)	
SOCIAL HISTORY VARIABLES	•		
		and the second second second	
School Problem Index:			
(Conduct & Achievement)			
None to Minor Problems	17.5	(92)	
Moderate Problems	34.0	(179)	
Serious Problems	36.6	(193)	
Missing	12.0	(63)	÷ .
	12.0	(65)	
Drug and Alcohol Problem Inde	x:		
No Involvement	37.6	(198)	
Minor Involvement	0/10	(190)	
(Drugs, Alcohol or		(
Both)	37.8	(199)	
Serious Involvement			
(Major problem with			
Drugs, Alcohol or			
Both)	23.7	(125)	
Missing	.9	(5)	
Family Instability Index:			•
Stable	23.0	(121)	
Minor Instability	23.1	(122)	
Moderate Instability	23.3	(123)	
· · · · ·			
Severe Instability	29.2	(154)	
Missing	1.3	(~ 7)	
Living Arrangements Before			
Placement:		•	
Both Natural Parents	30.7	(162)	
One Natural Parent	60.2	(317)	
Surrogate Parents	8.9	(47)	
Missing	.2	$\begin{pmatrix} 1 \end{pmatrix}$	
		~ -/	
SAMPLE PLACEMENT RELATED VARIABLES	5		
Most Serious Offense		• • • •	
Leading to Sample			
Placement:			
	10 0		
Non-Criminal & Drug	12.3	(65)	
Non-Serious Property	29.8	(157)	
Serious Property	22.2	(117)	
Offenses Against Person	35.7	(188)	
	10		

1

	7.	(n)	
Age at Sample Placement:		(1)	
Under 16 Years	26.9	(142)	
16 Years	29.2	(154)	
17 to 17.5 Years	17.8	(94)	
Over 17.5 Years	26.0	(137)	
		()	
Length of Stay in Sample Placement:			
Up to 6 Months	25.2	(133)	
7 to 9 Months	26.0	(137)	
10 to 12 Months	27.7	(146)	
Over 12 Months	21.1	(111)	
Institutional Problem Index			
Few or No Problems	41.7	(220)	
Moderate Adjustment			
Problems	23.9	(126)	
Serious Adjustment			
Problems	33.8	(178)	
Missing	.6	(3)	
		• • •	
POST-RELEASE RELATED VARIABLES			
Age at Release from			
Placement:	•		
Under 17	32.8	(173)	
17-18	33.4	(176)	
Ovar 18	33.8	(178)	
Post-Release Adjustment			
Index:		•	
Not Employed or in	• • •	4 402	
School	11.4	(60)	
Either Employed or	-	()	
in School	74.0	(390)	
Missing	14.6	(77)	
Post-Release Supportive			
Services:			
Neither Counseling			
nor Day Treatment	64.5	(340)	
Counseling or Day	07 0		
Treatment	27.3	(144)	
Missing	8.2	(43)	
High School Graduate by			
End of Followup:			
Not a Graduate	62.0	(327)	
G.E.D. or Graduated	02.0	(347)	
	00 /	(110)	
High School	22.4	(118)	
Missing	15.6	(82)	

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i.

%(n)Maintenance on Probation Caseload after Release: 0-3 Months32.3(170)4-6 Months16.7(88)7-12 Months26.4(139)13+ Months24.7(130)Length of Time from Release1000	
0-3 Months32.3(170)4-6 Months16.7(88)7-12 Months26.4(139)13+ Months24.7(130)	
4-6 Months16.7(88)7-12 Months26.4(139)13+ Months24.7(130)	
7-12 Months26.4(139)13+ Months24.7(130)	
7-12 Months26.4(139)13+ Months24.7(130)	
Length of Time from Release	
to End of Observation Period:	
Up to 18 Months 38.3 (202)	
18 to 24 Months 36.1 (190)	
24 Months or Longer 25.6 (135)	
POST-RELEASE CRIMINAL BEHAVIOR	
Number of Arrests Following Release from Placement:	
None 45.2 (238)	
One 24.5 (129)	
Two or More 30.4 (160)	
Number of Convictions	
Following Release from	
Placement:	
None 69.3 (365)	
One 19.5 (103)	
Two or More 11.2 (59)	
Number of Incarcerations	
Following Release:	
None 76.7 (404)	
One 15.2 (80)	
Two or More 8.2 (43)	
Rate of Arrests Per Year	
Following Release: **	
Below .3 45.4 (239)	
.3 to .99 28.7 (151)	
1.0 and Above 26.0 (137)	. ·
Most Serious Offense	i.
Committed Following Release:	
Non-Criminal & Drug 3.2 (17)	
Offenses Against Person 20.7 (109)	
None 41.7 (220)	

	%	(n)	
Number of Arrests During First 12 Months Following	: · · ·		
Release:			
None	52.4	(276)	
One	26.8	(141)	
Two or More	20.9	(110)	
Number of Convictions During First 12 Months Following Release:			
None	71.9	(379)	
One	19.2	(101)	
Two or More	8.9	(47)	

* Annual arrest rate prior to sample placement reflects all known arrests for a criminal offense from the subject's tenth birthday to the arrest leading to sample placement.

** Rate of arrests per year following release reflects all known arrests for a criminal offense from the subject's release from sample placement to the end of his follow-up period. It does not take possible time in confinement into account. That is, some subjects may have been incarcerated during portions of their observation periods. Considering strictly the most serious offense for which each juvenile was ever arrested, offenses against the person comprised the most frequent type, with 55 percent of the sample arrested for a person offense. The most serious offense for which juveniles were ever arrested was predominantly: robbery (40 percent), burglary (34 percent), aggravated assault (6 percent), and rape (5 percent).

Considering the most serious offense contained in the petition which led the juvenile to his sample placement, offenses against the person were again most prevalent, affecting 35.7 percent of the cases. The four most frequent specific offenses leading to sample placement were: burglary (22 percent), robbery (21 percent), theft (17 percent), and aggravated assault (7 percent).

Social History Variables

A large amount of information concerning the social histories of the juveniles was coded from the probation office files. In the interests of efficiency and reliability, the investigators were able to condense this information into more useable forms through the creation of indexes. In addition to providing the profiles for the recidivism study sample, this section reviews the components of these indexes. Detailed descriptions of the indexes can be found in Appendix B.

<u>School problem index</u>. This score reflects information gleaned from probation office files concerning the juvenile's conduct and achievement in school. It is comprised of 6 items measuring: attendance difficulties, disciplinary action (suspensions, etc.), aggressiveness or disruptiveness, poor achievement, involvement in alternative education, and failing. Cases were classed into three categories: (1) no or minor problems (no more than one problem listed), (2) moderate problems (2-4 problems), and (3) serious problems (5 or 6 problems).

As Table 1 illustrates, data on our sample suggest extensive school problems overall, with 70.6 percent coded as having either moderate or serious problems in school prior to placement.

Drug and alchohol problem index. This measures the juvenile's involvement in drugs or alchohol (excluding experimentation) and his efforts to obtain professional help in dealing with such involvement. Cases are categorized into three groups: (1) no evidence, (2) minor involvement (occasional use of marijuana, alchohol, or both), and (3) major involvement (regular use of marijuana and/or alchohol, or any use of "hard drugs").

Table 1 suggests that problems of chemical dependency are not . extensive among juveniles in this sample. The majority (75.4 percent) were coded as having either no or minor involvement. <u>Family instability index</u>. This scale reflects the degree of instability and inadequate socialization experienced by the juvenile in his home environment. It measures evidence of: neglect, ineffective parental control, punitiveness to juvenile, parental alcohol dependency, parental drug abuse, parental criminality, absence of natural parents, and lack of opportunities for bonding with parents. Cases were categorized as follows: (1) stable family; (2) minor instability (no more than one problem coded as major); (2) moderate problems (several trouble spots); and (4) severe problems (problems, at least some major, indicated for the majority of the above categories).

The overall sample is distributed evenly on the family instability index. While about a quarter of the cases grew up in relatively stable environments, almost 30 percent lived in homes with serious instablity, probably providing those juveniles with inadequate socialization experiences.

Sample Placement Related Variables

An attempt was made to obtain information from case files concerning the experience of the juvenile during sample placement. Of particular interest was information on the juvenile's ability to function effectively in his placement. Information for the sample placement problem index was obtained from reports from the sample placements available in juveniles' case files. This index reflects the juvenile's involvement in: rule infractions, awol's, new charges for criminal conduct occuring during placement, and failure to participate in available programming. Juveniles were categorized as either: sucessfully adjusted, moderate problems (major problem on 1 item), or major problems (combination of major and minor problems).

Table 1 suggests that the majority of cases adjusted well to their placements, although a substantial minority (33.8 percent) experienced a considerable degree of difficulty in their placement. It should be noted, however, that only cases who successfully completed their sample placements were included in the study.

Almost half of the sample (43.8 percent) were 17 or over when they entered their sample placements. The youngest case was 12 and oldest over 19 at the time of entry.

The majority (53.7 percent) spent between 6 and 12 months in the sample placement, with the minimum time spent being 1 month and maximum being 28.8 months. (Note: Cases with extremely short placements, regarded as two months or less, were generally excluded.)

Post-Release Adjustment

The majority of cases in the study sample (67.2 percent) were at least 17 years of age at the time of their release from placement. In general, they reentered environments which provided at least some structure and supervision. For example, 74.0 percent of the releasees were either employed or in school after returning to the community. In addition, 27.3 percent had received some form of post-release supportive services in the form of counseling or day treatment. About one fourth (22.4 percent) had earned their high school diploma or G.E.D. by the completion of the follow-up period.

The degree to which cases were maintained on probation status varied greatly across the study sample. Thirty-two percent of the cases were maintained on probation status for no longer than three months; another 17 percent were followed for between 3 and 6 months. Thus, almost half of the study sample was maintained on a probation caseload for 6 months or less. At the other end of the continuum, about one fourth (34.7 percent) of the cases was maintained for at least 13 months.

Post-Release Criminal Behavior

During the follow-up period, 55 percent of the sample was arrested at least once, broken down as follows: 30.4 percent were arrested two or more times and 24.5 percent had one arrest. Almost 50 percent were arrested during the first 12 month period. Thus, one's likelihood of being arrested was much higher during the first year (and especially during the first 6 months) than during subsequent years.

While the majority of cases were arrested, only 31 percent were convicted, 28 percent for offenses committed during the first 12 months. About one fourth of the study sample (23.4 percent) was incarcerated again during the follow-up period.

The most serious alleged offense committed subsequent to release was computed for those cases (55 percent) who had at least one post-release arrest. Four offense types comprised almost 80 percent of the offenses committed: theft (27 percent); robbery (23 percent); burglary (21 percent); and aggravated assault (6 percent).

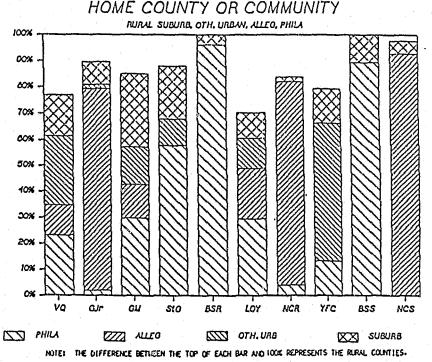
II. Profiles of Sample Placement Groups

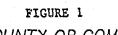
The next section of the report deals with characteristics of juveniles placed in the ten sample placements. By comparing the characteristics of the groups assigned to each placement, we are able to infer the criteria used by judges and probation officers in their decisions to send juveniles to particular placements [3]. Table 2 presents the findings discussed below, which are also illustrated in accompanying figures.

Demographic Characteristics

When the demographic profiles of the placements are examined it becomes apparent that juveniles are not randomly assigned to placements. For example, judges and probation officers appear generally to select placements proximate to their geographic region, at least in the case of the two major metropolitan counties. As these counties place disproportionate numbers of minority juveniles, this fact influences the racial composition of the placements as well.

<u>Area of origin</u>. Of the ten placements, five are comprised of at least 75 percent of their residents from a single county. Allegheny County is responsible for placing the majority of the residents at George Junior (78 percent), Newcastle Residential (79 percent) and Newcastle secure (93 percent), while juveniles from Philadelphia comprise 96 percent of the Bensalem residential cases and 90 percent of the Bensalem secure cases. The remaining placements attracted residents from a somewhat larger county base.





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PROFILE OF SAMPLE PLACEMENT GROUPS

	VQ	CJ	ଫ	SG	BR	LOY	NR	YFC	BS	NS
OGRAPHIC VARIABLES	¥.	s,	\$	\$	- *	· . %	\$.	2	*	£,
Race:	÷									
White	48.1	46.6	24.1	32.0	1.9	37.3	41.1	51.9	5.3	48.8
Black	42.3	50.0	.72.2	60.0	94.2	51.0	58.9	31.5	89.5	48.8
Other	9.6	3.4	3.7	8.0	3.8	11.8		16.7	5.3	2.3
Home Community:								•		
Rural	23.1	10.3	14.8	12.0		29.4	16.1	20.4		2.3
Suburban	15.4	8.6	27.8	20.0	3.8	9.8	1.8	13.0	10.5	4.7
Other Urban	26.9	1.7	14.8	10.0		11.8		53.7		
Allegheny Co.	11.5	77.6	13.0			19.6	78.5		·	93.0
Philadelphia Co.	23.1	1.7	29.6	58.0	96.2	29.4	3.6	13.0	89.5	
MINAL HISTORY VARIABLES										
Age at First Arrest:										
Under 13 Years	28.8	12.1	18.5	34.0	17.3	37.3	35.7	20.4	35.1	23.3
	42.3	39.7	44.4	42.0	53.8	39.2	30.4	29.6	33.3	44.2
13-14 Years 15 Years or Over	28.8	48.3	37.0	24.0	28.8	23.5	33.9	50.0	31.6	32.6
Number of Arrests Prior to Sample										
	•									
Placement:						·				
Placement: 1-2	25.0	63.8	33.3	34.0	17.3	35.3	23.2	25.9	12.3	
	32.7	31.0	42.6	30.0	38.5	29.4	42.9	31.5	21.1	39.5
1-2										20,9 39.5 39.5
1-2 3-4	32.7	31.0	42.6	30.0	38.5	29.4	42.9	31.5	21.1	39.5
1-2 3-4 5 or More Number of Convictions Prior to	32.7	31.0 5.2	42.6 24.1	30.0 36.0	38.5 44.2	29.4 35.3	42.9 33.9	31.5 42.6	21.1 66.7	39.5 39.5
1-2 3-4 5 or More	32.7	31.0 5.2 46.6	42.6	30.0	38.5	29.4 35.3 31.4	42.9 33.9 14.3	31.5 42.6	21.1 66.7 7.0	39.5 39.5 16.3
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement: 0-1	32.7 42.3	31.0 5.2	42.6 24.1	30.0 36.0	38.5 44.2	29.4 35.3	42.9 33.9 14.3 53.6	31.5 42.6 11.1 53.7	21.1 66.7 7.0 36.8	39.5 39.5 16.3 39.5
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement:	32.7 42.3 15.4	31.0 5.2 46.6	42.6 24.1 25.9	30.0 36.0 26.0	38.5 44.2 7.7	29.4 35.3 31.4	42.9 33.9 14.3	31.5 42.6	21.1 66.7 7.0	39.5 39.5 16.3 39.5
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement: 0-1 2-3 4 or More Number of Delinquent Placements	32.7 42.3 15.4 36.5	31.0 5.2 46.6 46.6	42.6 24.1 25.9 44.4	30.0 36.0 26.0 40.0	38.5 44.2 7.7 50.0	29.4 35.3 31.4 37.3	42.9 33.9 14.3 53.6	31.5 42.6 11.1 53.7	21.1 66.7 7.0 36.8	39.5 39.5 16.3
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement: 0-1 2-3 4 or More Number of Delinquent Placements (including sample placement):	32.7 42.3 15.4 36.5 48.1	31.0 5.2 46.6 46.6 6.9	42.6 24.1 25.9 44.4 29.6	30.0 36.0 26.0 40.0 34.0	38.5 44.2 7.7 50.0 42.3	29.4 35.3 31.4 37.3 31.4	42.9 33.9 14.3 53.6 32.1	31.5 42.6 11.1 53.7 35.2	21.1 66.7 7.0 36.8 56.1	39.5 39.5 16.3 39.5 44.2
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement: 0-1 2-3 4 or More Number of Delinquent Placements (including sample placement): One	32.7 42.3 15.4 36.5 48.1 28.8	31.0 5.2 46.6 46.6 6.9 70.7	42.6 24.1 25.9 44.4 29.6 66.7	30.0 36.0 26.0 40.0	38.5 44.2 7.7 50.0	29.4 35.3 31.4 37.3	42.9 33.9 14.3 53.6	31.5 42.6 11.1 53.7	21.1 66.7 7.0 36.8	39.5 39.5 16.3 39.5
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement: 0-1 2-3 4 or More Number of Delinquent Placements (including sample placement): One Two	32.7 42.3 15.4 36.5 48.1	31.0 5.2 46.6 46.6 6.9	42.6 24.1 25.9 44.4 29.6	30.0 36.0 26.0 40.0 34.0	38.5 44.2 7.7 50.0 42.3 28.8	29.4 35.3 31.4 37.3 31.4 45.1	42.9 33.9 14.3 53.6 32.1 30.4	31.5 42.6 11.1 53.7 35.2	21.1 66.7 7.0 36.8 56.1 19.3	39.5 39.5 16.3 39.5 44.2 4.7
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement: 0-1 2-3 4 or More Number of Delinquent Placements (including sample placement): One	32.7 42.3 15.4 36.5 48.1 28.8	31.0 5.2 46.6 46.6 6.9 70.7	42.6 24.1 25.9 44.4 29.6 66.7	30.0 36.0 26.0 40.0 34.0 74.0	38.5 44.2 7.7 50.0 42.3	29.4 35.3 31.4 37.3 31.4	42.9 33.9 14.3 53.6 32.1	31.5 42.6 11.1 53.7 35.2	21.1 66.7 7.0 36.8 56.1	39.5 39.5 16.3 39.5 44.2
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement: 0-1 2-3 4 or More Number of Delinquent Placements (including sample placement): One Two	32.7 42.3 15.4 36.5 48.1 28.8 32.7	31.0 5.2 46.6 6.9 70.7 19.0 10.3	42.6 24.1 25.9 44.4 29.6 66.7 25.9 7.4	30.0 36.0 26.0 40.0 34.0 74.0 20.0 6.0	38.5 44.2 7.7 50.0 42.3 28.8 34.6 36.5	29.4 35.3 31.4 37.3 31.4 45.1 33.3 21.6	42.9 33.9 14.3 53.6 32.1 30.4 37.5 32.1	31.5 42.6 11.1 53.7 35.2 55.6 29.6 14.8	21.1 66.7 7.0 36.8 56.1 19.3 22.8 57.3	39.5 39.5 39.5 44.2 4.7 30.2 65.1
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement: 0-1 2-3 4 or More Number of Delinquent Placements (including sample placement): One Two Three or More	32.7 42.3 15.4 36.5 48.1 28.8 32.7	31.0 5.2 46.6 6.9 70.7 19.0 10.3 56.9	42.6 24.1 25.9 44.4 29.6 66.7 25.9 7.4 35.2	30.0 36.0 26.0 40.0 34.0 74.0 20.0 6.0 28.0	38.5 44.2 7.7 50.0 42.3 28.8 34.6 36.5 25.0	29.4 35.3 31.4 37.3 31.4 45.1 33.3 21.6 31.4	42.9 33.9 14.3 53.6 32.1 30.4 37.5 32.1 30.4	31.5 42.6 11.1 53.7 35.2 55.6 29.6 14.8 33.3	21.1 66.7 7.0 36.8 56.1 19.3 22.8 57.3 12.3	39.5 39.5 39.5 44.2 4.7 30.2 65.1 27.9
1-2 3-4 5 or More Number of Convictions Prior to Sample Placement: 0-1 2-3 4 or More Number of Delinquent Placements (including sample placement): One Two Three or More Rate of Arrests Per Year:	32.7 42.3 15.4 36.5 48.1 28.8 32.7 38.5	31.0 5.2 46.6 6.9 70.7 19.0 10.3	42.6 24.1 25.9 44.4 29.6 66.7 25.9 7.4	30.0 36.0 26.0 40.0 34.0 74.0 20.0 6.0	38.5 44.2 7.7 50.0 42.3 28.8 34.6 36.5	29.4 35.3 31.4 37.3 31.4 45.1 33.3 21.6	42.9 33.9 14.3 53.6 32.1 30.4 37.5 32.1	31.5 42.6 11.1 53.7 35.2 55.6 29.6 14.8	21.1 66.7 7.0 36.8 56.1 19.3 22.8 57.3	39.5 39.5 39.5 44.2 4.7 30.2 65.1

TABLE 2 (page 2)

PROFILE OF SAMPLE PLACEMENT GROUPS

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				•						
AL HISTORY VARIABLES	VQ	GJ	GM	SG	BR	LOY	NR	YFC	BS	NS
School Problem Index	*	*	\$	8	\$	\$	*	5 V 1	٩	- %
(Conduct & Achievement): No to Minor Problems	21.3	23.5	27.1	16.2	8.9	12.2	26.5	19.2	20.9	19.
Koderate Stobless	23.4	47.1	43.8	45.5	42.2	34.7	42.9	26.9	37.2	44.
Serious Problems	55.3	29.4	29.2	36.4	48.9	53.1	30.6	53.8	41.9	36.
Drug and Alcohol Problem Index:										
No Involvement	44.2	40.4	53.7	54.0	27.5	37.3	36.4	14.8	43.6	25.
Minor Involvement (Drugs, Alcohol or both)	32.7	42.1	33.3	24.0	70.6	33.3	32.7	38.9	45.5	25
Serious Involvement (Major problem with								46.3	10.9	48.
Drugs, Alcohol or both)	23.1	17.5	13.0	22.0	2.0	29.4	30.9	40.3	10.7	40.
Family Instability Index:			·					10 6	21.8	32.
Stable	17.3	32.8	31.5	24.0	17.0	11.8	25.0	18.5 18.5	20.0	14
Minor Instability	19.2	22.4	35.2	24.0	25.5	25.5	28.6 17.9	35.2	29.1	23
Hoderate Instability	25.0	12.1 32.8	14.8 18.5	32.0 20.0	34.0 23.4	15.7 47.1	28.6	27.8	29.1	30
Severe Instability	38.5	34.8	10-7	20.0	23.4	4/.1	20.0	2/10		
Living Arrangements Before Placement:		.			· · · ·		22.0	29.6	19.3	41.
Both Natural Parents	38.5	34.5	38.9	22.0	19.6	31.4	33.9 58.9	63.0	70.2	44
One Natural Parent Surrogate Parents	44.2 17.3	62.1 3.4	57.4 3.7	4.0	72.5	15.7	7.1	7.4	10.5	14
E PLACEMENT RELATED VARIABLES										
Most Serious Alleged Offense Prior to Sample Place	ment:				•		AF 0		12.3	18.
Non-Criminal & Drug	7.7	8.6	3.7	2.0	11.5	27.5	25.0 39.3	7.4 31.5	21.1	39
Non-Serious Property	28.8	31.0	31.5 25.9	28.0	25.0	23.5	16.1	40.7	8.8	14
Serious Prperty	30.8	24.1 36.2	38.9	48.0	17.3 46.2	21.6 27.5	19.6	20.4	57.9	27
Offenses Against Person	32.7	30.2	30.3	40.0	40.2	41.3	11.0	~~~~	••••	
Age at Sample Placement:		· • ·	·				23.2	5.6	8.8	Ģ
Under 16 Years	26.9	41.4	27.8 38.9	56.0 34.0	11.5	58.8	25.0	31.5	35.1	14.
16 Years 17 to 17.5 Years	36.5	24.1 20.7	18.5	8.0	28.8 21.2	11.8	12.5	37.0	8.8	23.
Over 17.5 Years	17.3 19.2	13.8	14.8	2.0	38.5	7.8	39.3	25.9	47.4	53.
Over 17.5 lears	19.2	13.0		2.0	. 20+2	7.0	2782			
Length of Stay in Sample Placement:								66.7	8.8	16.
Up to 6 Months	3.8	44.8	18.5	6.0	23.1	33.3	26.8 35.7	25.9	26.3	30
7 to 9 Months	7.7	25.9 17.2	20.4	14.0 74.0	40.4	33.3	16.1	7.4	42.1	11.
10 to 12 Months	21.2	17.2	27.8	6.0	26.9	5.9	21.4	3 a 44	22.8	41
Over 12 Months	.67.3	12.1	21.0	0.0	7.0	2.7	~~			
								11 2	50.9	28
Institutional Problem Index: Few or. No Problems	46.2	47.4	75.9	26.0	40.4	25.5	29.1	44,4	50.9	
	46.2 11.5 42.3	47.4 33.3 19.3	75.9 7.4 16.7	26.0 38.0 36.0	40.4 19.2 40.4	25.5 37.3 37.3	29.1 30.9 40.0	44.4 20.4 35.2	50.9 17.5 31.6	28. 26. 45.

TABLE 2 (page 3)

PROFILE OF SAMPLE PLACEMENT GROUPS

	VQ	GJ	См	SG	BR	LOY	NR	YFC	BS	NS
POST-RELEASE RELATED VARIABLES	*	\$	٩.	*	٤.	*		*	<u> </u>	 ¥
Age at Release from Placement: Under 17 17-18 Over 18	28.8 25.0 46.2	48.3 36.2 15.5	33.3 44.4 22.2	66.0 26.0 8.0	19.2 36.5 44.2	66.7 27.5 5.9	26.8 25.0 48.2	18.5 59.3 22.2	14.0 28.1 57.9	4.7 23.3 72.1
Post-Release Adjustment Index: Not Employed or in School Either Employed or in School	18.8 81.3	1.9 98.1	28.6 71.4	4.1 95.9	12.8 87.2	15.2 84.8	12.5 87.5	16.7 83.3	13.3 86.7	12.5 87.5
Post-Release Supportive Services: Neither Counseling or Day Treatment Counseling or Day Treatment	68.6 31.4	52.0 48.0	84.0 16.0	42.9 57.1	86.3 13.7	58.0 42.0	69.8 30.2	75.9 24.1	83.6 16.4	83.9 16.1
High School Graduate from Placement: Not a Graduate G.E.D. or Graduated High School	76.1 23.9	87.5 12.5	59.1 40.9	93.9 6.1	72.3 27.7	93.2 6.8	70.3 29.7	48.0 52.0	78.7 21.3	48.5 51.5
Maintenance on Probation Caseload After Release: 0-3 Nonths 4-6 Nonths I Months or Longer	26.9 28.8 44.2	8.6 17.2 74.1	20.4 25.9 53.7	4.0 32.0 64.0	28.8 17.3 53.8	5.9 31.4 62.7	14.3 30.4 55.4	11.1 42.6 46.3	33.3 10.5 56.1	23.3 25.6 51.2
Length of Time from Release to End of Observation Period: Up to 18 Months 18 to 24 Months 24 Months or Longer	65.4 32.7 1.9	31.0 37.9 31.0	46.3 29.6 24.1	46.0 32.0 22.0	34.6 48.1 17.3	13.7 54.9 31.4	39.3 30.4 30.4	13.0 27.8 59.3	54.4 35.1 10.5	39.5 32.6 27.9
POST-RELEASE CRIMINAL BEHAVIOR								. .		
Number of Arrests Following Release from Placement: None One Two or More	55.8 25.0 19.2	58.6 15.5 25.9	42.6 25.9 31.5	42.0 34.0 24.0	44.2 19.2 36.5	37.3 29.4 33.3	33.9 32.1 33.9	40.7 24.1 35.2	45.6 24.6 29.8	51.2 14.0 34.9
Number of Convictions Following Relese from Placement: None One Two or More	80.8 11.5 7.7	72.4 13.8 13.8	70.4 22.2 7.4	60.0 28.0 12.0	67.3 19.2 13.5	58.8 27.5 13.7	67.9 19.6 12.5	68.5 22.2 9.3	77.2 14.0 8.8	67.4 18.6 14.0

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TABLE 2 (PAGE 4)

PROFILE OF SAMPLE PLACEMENT GROUPS

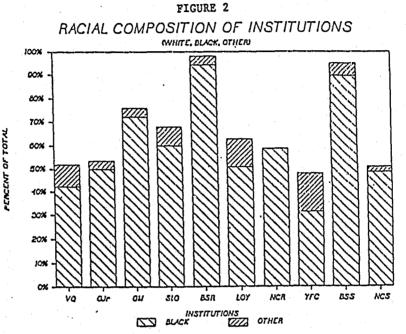
	VQ	GJ	GM	SG	BR	LOY	NR	YFC	BS	NS
ST-RELEASE CRIMINAL BEHAVIOR (continued)	.*	*	٤.	£	*	X ¹	۰٤	÷ \$	*	\$
Number of Incarcerations Following Release:		77 ((8.0	7 7 9		74 0	75.0	84.2	76.7
None	86.5	77.6	83.3	68.0	71.2	64.7	76.8	75.9	14.0	14.0
One	5.8	10.3	11.1	24.0	19.2	27.5	12.5	14.8	1.8	9.3
Two or Hore	7.7	12.1	5.6	8.0	9.6	- 7.8	10.7	9.3	1.0	2.5
Rate of Arrests Per Year Following Release:			· · · · ·	1999 - 19						
Below .3	55.8	58.6	42.6	44.0	44.2	37.3	33.9	40.7	45.6	51.2
.3 to .99	23.1	20.7	27.6	32.0	19.2	39.2	35.7	48.1	22.8	16.3
1.0 and Above	21.2	20.7	29.6	24.0	36.5	23.5	30.4	11.1	31.6	32.6
Most Serious Offense Committed Following Release:										
Non-Criminal & Drug	4.2	20.0		6.5	3.3	5.9	5.1	5.7	3.1	
Non-Serious Property	50.0	26.7	35.5	32.3	20.0	50.0	51.3	42.9	25.0	42.9
Serious Property	25.0	36.7	9.7	25.8	16.7	14.7	28.2	20.0	18.8	14.3
Offenses Against Person	20.8	16.7	54.8	35.5	60.0	29.4	15.4	31.4	53.1	42.9
Number of Arrests During First 12 Months					•					
Following Release:										co .
None	63.5	65.5	48.1	50.0	48.1	45.1	42.9	53.7	49.1	58.1
One	23.1	20.7	29.6	28.0	23.1	33.3	32.1	27.8	31.6	16.3
Iwo or More	13.5	13.8	22.2	22.0	28.8	21.6	25.0	18.5	19.3	25.6
		•								

VQ = VISION QUEST GJ = GEORGE JUNIOR GM = GLEN MILLS SG = ST. GABRIEL'S BR = BENSALEM RESIDENTIAL LOY= LOYSVILLE NR = NEWCASTLE RESIDENTIAL VFC= VFC #2 BS = BENSALEM SECURE NS = NEWCASTLE SECURE

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Figures in Table 2 reflect only non missing cases.

<u>Race</u>. Three of the placements contain predominantly black juveniles: George Junior Republic (72.3 percent), Bensalem Residential (94.2 percent) and Bensalem Secure (89.5 percent). The remainder of the placements are mixed, with the largest proportion of whites found at YFC #2 (52 percent).



NUTE: THE DIFFERENCE BETWEEN THE TOP OF EACH BAR AND 100% REPRESENTS THE WILTE POPULATION.

Criminal History Variables

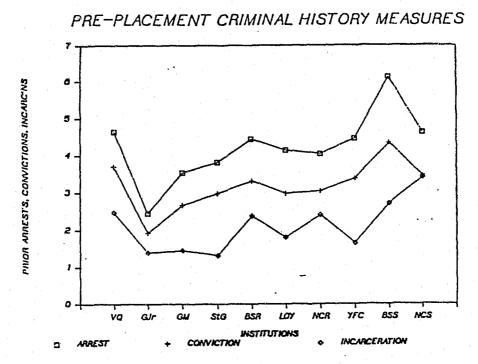
It appears that a youth's criminal history was considered by judges and probation officers in their decisions to send juveniles to particular placements. While the patterns are not perfect for every variable, certain placements appear to have attracted more criminally experienced youths and others less experienced residents.

In particular, more criminally experienced juveniles appear to be sent to Vision Quest, as well as to the two secure facilities. The three private, non-profit placements, George Junior, Glen Mills, and St. Gabriel's, for the most part, attracted a less criminally experienced clientele. The remaining placements appear to be viewed as appropriate for a wider range of residents.

Age at first arrest. Few patterns can be discerned on this variable. Indeed, there were no statistically significant differences among the ten groups.

The following three variables, relating to offense history, are illustrated in Figure 3.

FIGURE 3

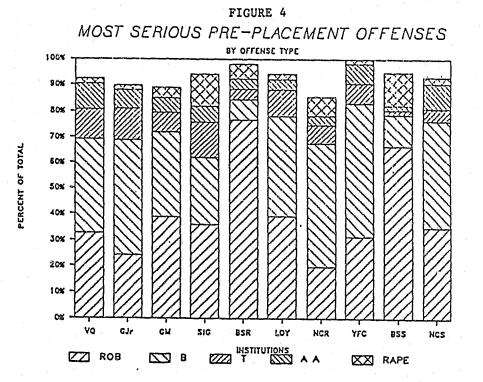


<u>Arrests prior to placement</u>. 87.8 percent of the Bensalem Secure group had been arrested at least three times prior to placement (average - 6.1 arrests), compared to only 36.2 percent of the residents at George Junior (average - 2.4 arrests). Residents from the remaining institutions were relatively similar with respect to pre-placement arrest records, averaging approximately four arrests.

<u>Convictions prior to placement</u>. The three private non-profit placements are distinguished from others with respect to the number of residents with no prior convictions: George Junior (47 percent), Glen Mills (26 percent), and St. Gabriel's (26 percent). In addition, the public facility of Loysville was comprised of a relatively large group (31 percent) with no prior convictions. Each of the remaining placements contained predominantly criminally experienced juveniles. Residents with extensive conviction records (4 or more) were clustered in the two secure placements and Vision Quest.

Incarcerations prior to placement. The three private non-profit placements, George Junior, Glen Mills and St. Gabriel's, contained proportionately larger numbers of residents who had never been placed before, with YFC#2 also containing a relatively large proportion of first placements (56 percent). Conversely, less than 20 percent of the residents at Bensalem secure and New Castle Secure were first placements.

Offense type. As shown in Table 2 and Figure 4, relatively few differences among placements were found on the most serious alleged offense committed by residents prior to placement. Most residents had committed at least one relatively serious offense, one that would have been considered a felony if it had been committed by an adult. Robbery and burglary are the two most prevalent offense types for each placement, although in some cases robbery is more common and in others, burglary is more prevalent.



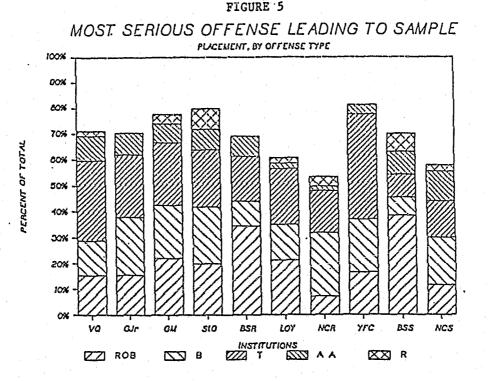
The two placements which distinguish themselves are those "fed" by Philadelphia county, Bensalem Residential and Secure. In both cases, the proportion of robbery cases is higher and proportion of burglary cases lower than other placements.

Offense type leading to sample placement. Again, as Figure 5 shows, the institutions are made up of mixed populations with respect to "instant" offense, with robbery, burglary, and theft being the most prevalent offenses leading to incarceration in all placements. Robbery appears to be more prevalent among juveniles at Bensalem Residential and Secure, accounting for over 30 percent of the cases in each placement. Theft is the predominant instant offense for juveniles sent to Vision Quest and the Youth Forestry Camp #2. While no facility houses large numbers of sex offenders, St. Gabriel's, with 9 percent, has proportionately more than any other placement.

Social History Variables

Few consistent differences among placement groups were apparent with regard to social history variables. Overall, the groups assigned to the ten placements experienced approximately similar school problems and pre-institutional living arrangements.

Two placements, Loysville and Vision Quest, appear to have attracted juveniles from somewhat more unstable home environments. Over



35 percent of the residents at each institution came from homes identified by the Family Instability Index as severely unstable. On the other hand, Glen Mills residents appeared to be distinguished by the stability of their pre-placement environments, with over two-thirds (66.7 percent) from homes with either no or only minor instability.

Two placements contained residents with significantly more serious problems with chemical dependency than the other eight. Forty-six

percent of YFC #2's residents and 49 percent of New Castle Secure's residents had major problems on this index, compared to not more than 31 percent (New Castle Residential) at any other placement.

Sample Placement Related Variables

Age at placement. St. Gabriel's and Loysville attract the youngest residents, with more than half in each placement entering before their 16th birthdays. Vision Quest, George Junior and Glen Mills also receive relatively young residents, with the majority in each case less than 17 at the time of entry. The remaining placements tend to attract older offenders, with the majority of residents in each case entering after their 17th birthdays.

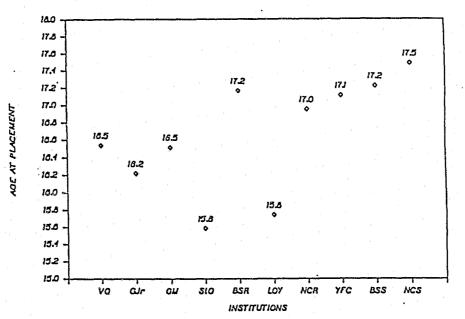
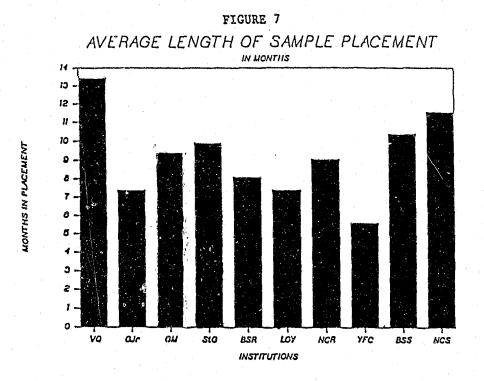


FIGURE 6 AGE AT PLACEMENT

These findings suggest that, except for Loysville, probation officer and judges are more willing to use private placements on younger offenders, "saving" the public institutions for older offenders.

Length of stay. Figure 7 shows that placements differ widely on the length of time they retain residents, with YFC #2 keeping most residents (67 percent) less than 6 months (average = 5.7 months), and Vision Quest keeping over 67 percent of its residents over one year (average = 13.5 months). The remainder of placements kept the majority of their residents between 6 and 12 months.



Institutional problem index. At least one third of the residents at eight institutions experienced serious institutional adjustment problems. The exceptions were George Junior and Glen Mills, where over 80 percent at each experienced either no or minor problems.

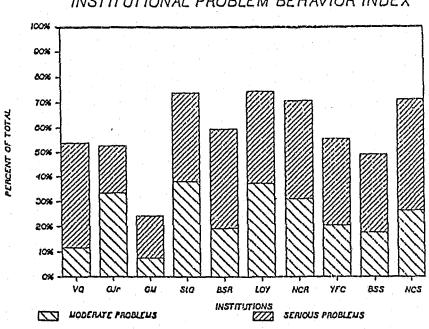


FIGURE 8 INSTITUTIONAL PROBLEM BEHAVIOR INDEX

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Post-Release Variables

Juveniles assigned to various institutions differed also on several variables measuring post-release experiences. Some of these differences are to be expected, especially age and time related variables, as we know that placements differed with respect to age at entry and length of stay. Moreover, the juvenile justice system may absolve itself of responsibility for a juvenile when he turns 18, thus, the degree of post-release supervision may be lower for older than younger releasees.

Age at release. Indeed, not all ten placements were similar with respect to the age of release of their residents. Figure 9 illustrates that more than 80 percent of the residents released by St. Gabriel's, George Junior, and Loysville were under 18 years, and the average age of release of juveniles from these placements was under 17 years. Releasees from these placements were significantly younger than those released from all other placements. In contrast, over half of the residents released from the two secure facilities were over 18 years of age at the time of release.

Length of time on juvenile probation caseload. As might be expected, juveniles released from different institutions remained on probation caseloads for varying lengths of time. Residents released from George Junior and Loysville, with average lengths of time on caseloads of 11 months each, were maintained for significantly longer periods than the 6 month averages of residents from Vision Quest and Bensalem Secure.

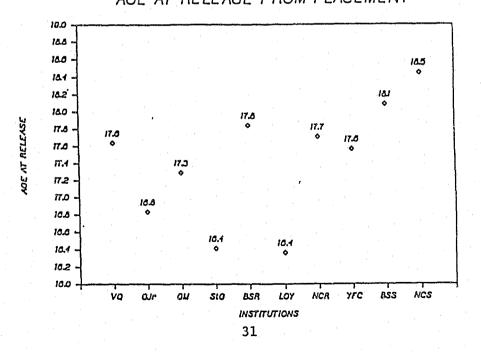
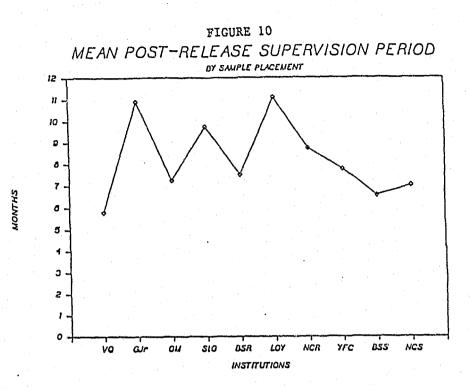
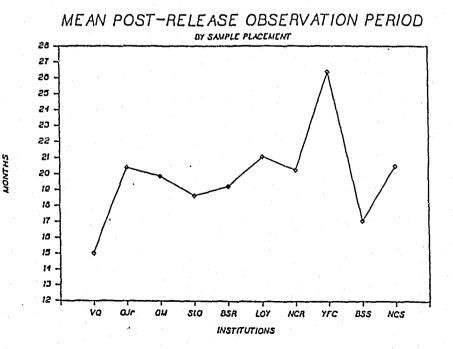


FIGURE 9: AGE AT RELEASE FROM PLACEMENT



Length of period "under observation". The amount of time available to the investigators for obtaining data concerning post-release criminal behavior differed across placements as well. Over half of the residents of Bensalem Secure and Vision Quest were followed for less then 18 months; very few from either placement were followed as long as 24 months. In contrast, between 17 and 31 percent of residents from the other institutions (excluding YFC #2) were followed for at least 24 months. Moreover, almost 60 percent of the releasees from YFC #2 were followed for at least two years.





<u>Involvement in school or work</u>. Except for Glen Mills' releasees, with almost 30 percent without a full time occupation of either school or work, releasees from the remaining 9 institutions were, for the most part "gainfully employed."

<u>High school graduate</u>. Relatively few releasees from George Junior (12.5 percent), St. Gabriel's (6.1 percent) and Loysville (6.8 percent) had completed their high school degrees by the end of the post-release period. This finding reflects the fact that juveniles released from these placements were significantly younger, and hence less likely to have completed school, than those released from other placements. In contrast, at least 20 percent of releasees from the seven other placements completed their degrees. Of particular note is the fact that over 50 percent of releasees from both YFC #2 and New Castle Secure completed their degrees.

In summary, age at release appears to be a strong determinant of the post-release experiences of our cases, and since placements differ with repect to age of release, our placement groups differ on postrelease variables as well. Placements which released younger offenders, such as George Junior and Loysville, also had cases which were followed for longer periods, were on probation caseloads longer and were less likely to receive their high school degrees.

Summary of Institutional Comparisons on Predictor Variables

Consistent patterns across placements emerge when institutional comparisons are made. In general, the two secure facilities and Vision Quest contain similar types of juveniles with respect to several variables. They contain the most criminally experienced juveniles, and they tend to maintain their residents in placement for the longest periods. On the other hand, the three non-profit placements, George Junior Republic, Glen Mills, and St. Gabriel's Hall attract younger, less criminally active residents. Institutional adjustment reflects this pattern also, with the fewest difficulties experienced by residents at George Junior and Glenn Mills. One might speculate that, if criminal history and poor institutional adjustment are predictors of recidivism, that the secure placements and Vision Quest residents should manifest higher recidivism rates, while placements such as George Junior and Glen Mills should demonstrate less recidivism.

On the other hand, if age is inversely related to recidivism, as has been found by other researchers (Farrington and Tarling, 1985; Loeber and Dishion, 1983), then, all else being equal, residents in private placements should experience higher rates of recidivism. Residents from the private non-profit placements and Loysville were younger at release than those released from public placements and Vision Quest. Residents released from private non profit institutions were also generally available for longer term follow-up by the study's coders; and, for this reason as well, may be expected to manifest higher recidivism rates, at least using certain static measures.

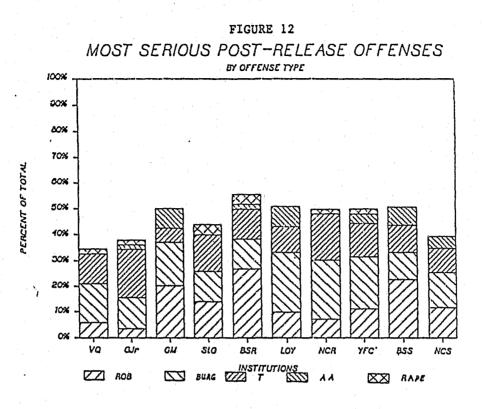
Few consistent patterns were discernible in the social history analyses. While overall differences were found among the ten placements on such variables as drug and alcohol problems and family stability, no consistent patterns are evident and it is difficult to make hypotheses concerning institutional differences on recidivism based upon social history data.

Sample Placement Comparisons: Recidivism

Given that differences among the ten placements were found on several variables considered predictive of recidivism, such as prior arrests, prior convictions, age at release, prior institutionalization, and institutional misconduct, one would expect that the placement groups would differ on recidivism as well. This section addresses the question of whether differences are found among juveniles in the ten placements on static recidivism measures.

Interestingly, no significant differences <u>between</u> placements are found on the static recidivism measures. What is found, instead, is considerable variation in recidivism patterns <u>within</u> each institution. As Table 2, the last section, illustrates, there appear to be approximately equivalent numbers of cases at each placement who have low, moderate and high scores on the various recidivism measures. While some variation from cell to cell may be apparent, it must be noted that the given relatively low numbers of cases in many cells, these differences are not reliable.

Indeed, the investigators ran a series of statistical tests and failed to uncover basic institutional differences on <u>any</u> of the following static recidivism measures: total number of arrests, convictions and incarcerations after release, number of arrests during the first 12 months, or rate of arrests. Moreover, when the types of offenses committed by recidivists are taken into account, they, like offenses committed prior to placement, tend to cluster in two major categories, robbery and burglary. This is illustrated in Figure 12, which shows these two offenses to comprise more than half the offenses for which releasees were arrested at nine of the ten placements. With the exception of releasees from George Junior, who are most likely to have committed theft, releasees from any one placement do not appear to commit more "serious" offenses than releasees from any other.



What inferences can be drawn from these findings? It would appear that the levels of post-release criminal activity among juveniles released from the ten sample placements are indistinguishable. Yet, as the institutional comparisons on the criminal history variables suggested, the groups assigned to the various placements were not uniform on characteristics which have been found in other studies to be predictors of recidivism. Does this imply that, if these factors were accounted for, some placements would <u>increase</u> or <u>reduce</u> the involvement of their residents in post-release criminal behavior?

Before this question can be addressed, it is necessary to determine which factors, if any, are found to be predictive of recidivism. This is the objective of the following section.

III. Identifying Predictors of Recidivism

To this point the analyses reveal significant differences among placement groups on a number of variables, including race, area of origin, age at entry, age at release, prior criminal history, institutional adjustment, family instability, and length of time in placement. Moreover, available research on predictors of recidivism suggests that at least some of these variables are also related to recidivism rates (see Goodstein and Sontheimer, 1986, for a review of this literature). Given that the institutional groups are not comparable on some important background measures, simple comparisons on recidivism rates could be misleading. Observed differences in recidivism rates, thought to be attributable to the effects of the residential placement, may actually be due to basic differences in the composition of the groups. To avoid making faulty inferences, differences among the institutional groups which are <u>also</u> related to recidivism within the general sample must be taken into account.

The previous section outlined the major differences among the institutional groups. In this section, the variables which are related to recidivism within this study sample are investigated. Correlations were computed between the six static recidivism measures and the entire list of demographic, criminal history, social history, institutional experience, and post-release experience variables. The results of these analyses can be found in Table 3.

As shown, the relationships among eight predictors and most or all of the recidivism variables are statistically significant. In addition, other predictors appear to be related to some, but not most, of the recidivism variables and will not be discussed here.

Table 3 illustrates the degree of statistical significance of the relationship. One star implies that the relationship would be expected to occur by chance only one time in 20, while two stars implies that the relationship would be expected to occur by chance only one time in 100. The sign accompanying the correlation coefficient reflects the direction of the relationship, with a negative sign signalling that as one variable increases, the other decreases.

Significant Predictors of Recidivism

Age at first arrest is shown to be a consistent predictor of recidivism for all six static measures. The negative relationship implies that the younger the juvenile was when he was first arrested, the higher his recidivism activity. This finding is further illustrated in Figure 13, which demonstrates decreasing recidivism activity on three of the static measures as the age at first arrest increases.

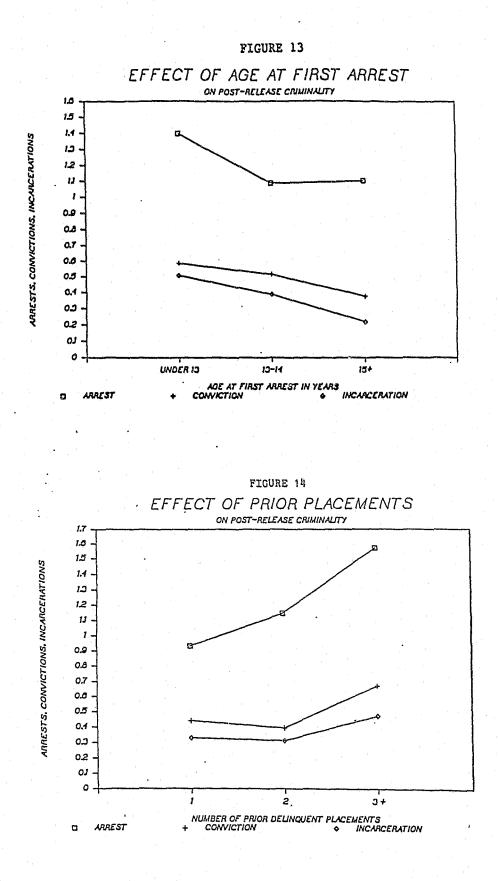
<u>Prior delinquent placements</u>. Recidivism activity on four of the six static measures was also greater for juveniles with higher numbers of delinquent placements. As Figure 14 shows, juveniles with three or more delinquent placements demonstrated more recidivism activity than juveniles with less experience with delinquent placements.

<u>Pre-placement arrest rate</u>. One of the most powerful predictors of recidivism, in terms of the size and significance of the correlations, appears to be the rate of the juvenile's arrests prior to placement. Again, Figure 15 illustrates that recidivism activity is substantially increased as the pre-placment rate of criminal activity increases.

CORRELATIONS BETWEEN PREDICTORS AND STATIC RECIDIVISM VARIABLES

	Rate of <u>Arrests</u>	Arrests	Convictions_	Incarcera- tions	Arrests 1st 12 Months	Convictions 1st 12 Month
Demographic Variables						
Race	.026	.009	043	049	016	063
Home Population of Community	.084*	.031	073*	085*	.058	061
<u>Criminal History Variables</u>						
Age at First Arrest	124**	098*	101*	143**	116**	104**
Prior Arrests	.237**	.176**	.059	.069	.193**	.043
Prior Convictions	.216**	.167**	.048	.044	.196**	.039
Delinquent Placements	.218**	-165**	.079*	.067	.155**	.063
Rate of Arrests	.236**	.176**	.130**	.154**	.195**	.112**
Social History Variables	÷					· •
School Problem Index	.084*	.074	.096*	.085*	.082 *	.097*
Drug/Alcohol Problem Index	.005	.016	.022	.019	.035	.027
Family Instability Index	.045	.024	.043	.066	.033	.045
Living Arrangements	048	055	006	.020	051	006
Sample Placement Related Variables						
Age at Placement	012	002	203**	222**	021	198**
Length of Stay	.022	097 *	063	044	007	016
Institutional Problem Index	.092 *	.074*	.088*	.110**	.124**	.111**
Post-Release Related Variables						
Age at Release	005	031	222**	235**	- 023	202**
Adjustment Index	061	098*	034	026	094*	038
Supportive Services	059	050	.086*	.055	043	.062
High School Graduate	094*	065	087*	079*	074*	083*
Probation Caseload	064*	004	.075*	.021	053	.031
Length of Follow-Up	093*	.112 **	.140**	.100*	038	.084*

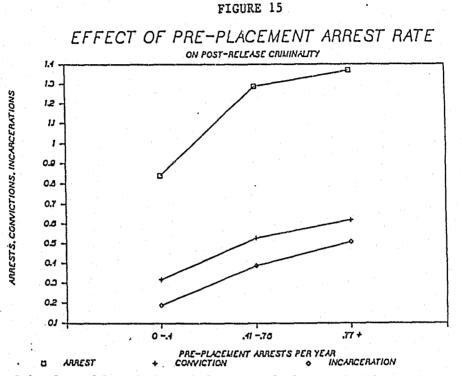
* Significant at .05. ** Significant at .01.



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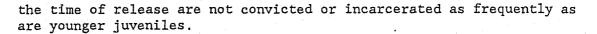
Specifically, cases with high pre-placement rates had arrest rates that were 22 percent higher, 45 percent more post-placement arrests, and 72 percent more convictions than those for juveniles with low pre-placement arrest rates.



<u>School problem index</u>. Only one of the social history variables, the <u>school problem index</u>, was found to be related to any of the recidivism measures. A consistent relationship was found linking school problems with higher recidivism activity. This is illustrated in Figure 16, which shows juveniles with no or minor problems in school as having lower arrest rates, fewer total arrests, and fewer total convictions than juveniles who had had serious problems in school.

<u>Institutional problem index</u>. Perhaps the reason for the relationship between school problems and recidivism reflects the fact that the school problem index measured, in part, disciplinary misconduct. Another predictor of recidivism, which also measures disciplinary misconduct, is the <u>institutional problem index</u>. It appears that a juvenile's conduct while in the sample placement was related to his degree of criminal behavior after release.

Age at release also appears to be a significant predictor of recidivism on three of the six measures. As Figure 18 shows, although age at release does not appear to affect arrests or arrest rate, it appears to be strongly related to convictions. Juveniles who are older at



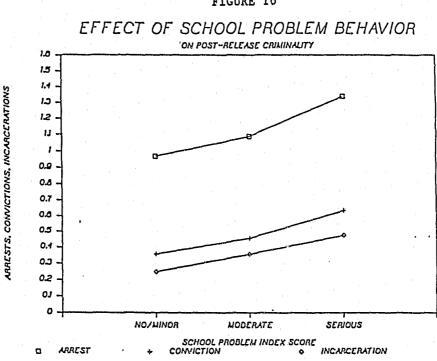
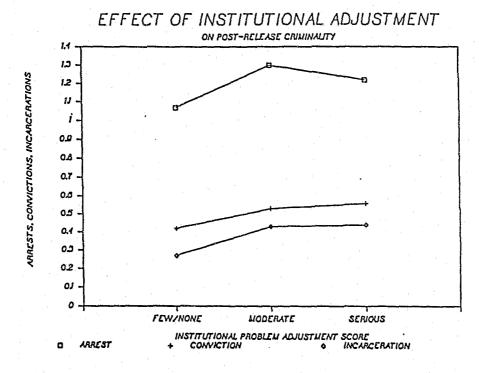


FIGURE 16





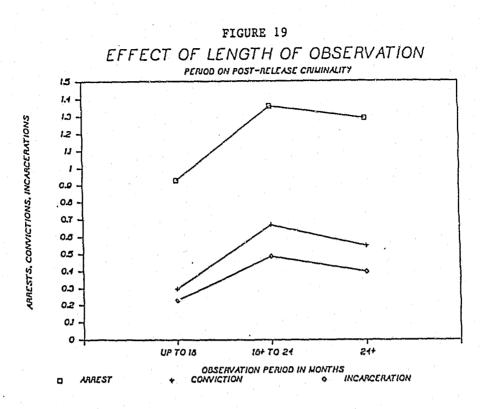
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FIGURE 18 EFFECT OF AGE AT RELEASE ON POST-RELEASE CRIMINALITY 1.10 1.20 1.20 ARRESTS. CONVICTIONS, INCARCERATIONS 110 1.00 0.90 0.60 0.70 0.00 0.50 0.10 0.20 0.20 010 0.00 UNDER IT 17 18 OR OVER AGE AT RELEASE FROM SAMPLE PLACEMENT 0 ARREST CONVICTION INCARCERATION ٥

Follow-up period. Finally, the period of time the juvenile is followed after release from placement appears to influence the recidivism measures. This stands to reason, as the longer time one is observed, the more opportunity he has to commit crime. This is illustrated in the total arrests plot in Figure 19, where cases followed for over 2 years had an average of 1.29 arrests while cases followed for less than 18 months averaged only .93 arrests.

The relationship between the follow-up period and the rate of postrelease arrests appears to be inverse, implying that the longer one is followed, the lower his rate of criminal activity. Actually, as Figure 19 illustrates, the relationship between follow-up time and recidivism is actually curvilinear, with lower recidivism for those with shorter follow-up times, higher recidivism for those with moderate follow-ups and then lower recidivism activity for those with long periods of follow-up.

This curvilinear relationship probably reflects juveniles' opportunities for engaging in criminal behavior. The actual amount of criminal activity may have been underestimated for those with short follow-up periods, as they were not followed long enough to adequately monitor their criminal involvement. Those followed for moderate periods probably do have the highest recidivism rates, and, ultimately may have opportunities for criminal activity curtailed by incarceration. Those with the longest follow-up period may be those who have successfully avoided repeat incarceration probably because they have lower recidivism activity. In addition, longer follow-up periods allow juveniles to mature to life-cycle stages in which they may be less delinquency prone.



Identifying Appropriate Control Variables

The analyses reported in Table 3 and Figures 13 through 19 reveal that there are factors in the data which successfully predict the static recidivism measures. The analyses presented are simple ones; it is likely that these factors are at least somewhat interrelated and thus do not all independently influence the recidivism measures. For example, it is quite possible that the indexes measuring school problems and institutional adjustment are primarily reflecting one construct, disciplinary misconduct. Taking both variables into account in tests of institutional differences on recidivism would not only be redundant but would weaken the power of the tests to identify differences among the placements. Thus, while it is extremely important to take into account important institutional differences, it is also important to include only the minimum number of necessary "control" variables.

Table 4 presents the results of the multiple regression analyses used to identify those variables which independently contributed to the recidivism scores on the five static measures. Standard multiple regressions of each of the six static recidivism measures on eight predictor variables were conducted. The predictor variables included were those which demonstrated significant zero-order correlations with at least four of the five static recidivism measures. They included: age at first arrest, prior delinquent placements, prior arrest rate, school problem index, institutional adjustment index, age at release from

Predictor Variables		t-Rele rest H			t-Rela			t-Rel victio			-Relea			sts Du t 12 P	ring Ionths
В	В	SE	t -	В	SE	ĉ	В	SE	t	B	SE	۰ ۲ .	B	SE	t
Age at First Arrest	.040	031	1.30	034	050	.69	033	033	-	000	029	.22	.000	.041	.06
Inst. Problem Index	.016	.023		.049		1.33			2.31*			2.73**	.049		1,64
H.S. Graduate	.097	.107	90	127	.171	74	051	.114	45	015	.101	15	077	.140	55
Time Under Observa.	110	.088	-1.25	.406	.141	2.88**	.280	.094	2.99**	.188	.083	2.26*	.013	.115	.11
School Behav. Index	.035	.031	1.15	.064	.049	1.30	.054	.033	1.67	.040	.029	1.39	.042	.040	1.05
Delinq. Placements	.161	.036	4.41**	.207	.058	3.54**	.086	.039	2.22*	.045	.034	1.30	.119	.048	2.50*
Age at Release	052	.042	-1.25	073	.067	-1.09	186	.045	-4.17**	159	.040	-4.01**	054	.055	98
Pre-Placement Arrest Rate	.510	.134	3.80**	.735	.215	3.42**	.312	.143	2.19*	.246	.127	1.94	.522	.176	2.97**
R ²		.127	 •		.103			.114			.106			.082	

TABLE 4

Standard Regression Analyses of Five Recidivism Measures on Eight Predictor Variables

* Significant at .05 ** Significant at .01

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placement [4], high school graduate status, and length of the follow-up observation period.

As Table 4 illustrates, five of the predictor variables tested appear to have significant independent effects on at least some of the static recidivism measures. The institutional adjustment index and age at release significantly predict two of the five recidivism measures tested. The length of the follow-up observation period significantly predicted three of the recidivism measures. Finally, prior delinquent placements and the pre-placement arrest rate significantly predicted four of the static measures.

IV. Evaluating the Sample Placements After Controlling for Institutional Differences

The analysis of covariance is a statistical technique which allows one to control for the effects of factors which are known to correlate with the dependent measure of interest. It is typically used to control for the effects of factors which "precede" the phenomenon one is trying to evaluate. One advantage of the analysis of covariance is that it yields "adjusted means" which represent scores on the dependent measures which better reflect the true effects of the different levels of the predictor of interest (in this case the ten institutions), taking into account everything the researcher knows about the sample population and the predictor variables. While this technique is not a substitute for random assignment to the different institutions, the adjusted means are considered a more reliable indication of what is really happening than the raw means.

In the present study, the researchers used this technique to control for the effects of the factors which had shown the most consistent correlation with the recidivism measures: (1) pre-placement arrest rate, (2) prior delinquent placements, (3) institutional adjustment index, (4) length of time of follow-up observations, and (5) age at release from placement. In analysis of covariance terminology, these variables are referred to as covariates. The first four covariates had a direct relationship to the dependent measures (as an individual's score on them increased, so did his score on the recidivism measure). Age at release had an inverse effect (the older a subject at release, the lower his expected score on the recidivism measure).

Table 5 presents two sets of mean scores for each institutional group for the six static recidivism measures. For each static measure, Column I represents the observed mean scores for each placement group and Column II depicts these mean scores after they had been adjusted for the effects of the five covariates. Following the observed and adjusted mean scores, the F values and probability levels for each analysis have

OBSERVED A CONVICTION MONTHS, F PLACEME	IS, ANI FOR EAC	D INCAP H SAMPLE	CERATIO	NS, ANI ENT (COV) NUMBE VARIATES	R OF ARI	RESTS D	URING I REST RAT	FIRST 1: TE, PRIO	2 .
	POST-R ARREST	elease Rate	POST-R ARR	ELEASE ESTS			POST-R INCARCE			OST-
PLACEMENT	OBS. MEAN	ADJ. MEAN	OBS. MEAN	ADJ. MEAN	OBS. MEAN		OBS. MEAN	ADJ. MEAN	 OBS. MEAN	ADJ. MEAN
	I	II	I	II	I	II	I I	II	I	II
VISION QUEST GEORGE JUNIOR GLEN MILLS ST. GABRIEL'S BENSALEM RESID LOYSVILLE NEW CASTLE RES YFC #2 BENSALEM SEC. NEW CASTLE SEC ENTIRE SAMPLE N = 524	0.56 0.77 0.69 0.71 0.86 0.50 0.94 . 0.72	0.76 0.92 0.76 0.85 0.66 0.82 0.59 0.77	1.00 1.22 1.06 1.40 1.29 1.42 1.42 1.06 1.32 1.29 1.29 	0.85 1.25 1.46 1.16 1.37 1.14 1.36 0.88 1.24 1.03	0.56 0.37 0.62 0.56 0.59 0.53 0.44 0.32 0.55	0.51 0.60 0.45 0.54 0.37	0.22 0.50 0.44 0.55 0.40 0.35 0.18 0.38	0.45 0.31 0.38 0.48 0.34 0.42 0.33 0.24 0.43	0.60 0.83 0.86 0.96 0.98 1.13 0.70 0.98 0.83	1.01 0.90 0.90 0.90 1.08 0.76 0.85
						•	-			
Covariates:										
F		9.67	ļ	9.00		10.72		10.55	ľ	6.81
(df~5)		.001		.001		.001		.001		.001
Placements:		,								
F (df-9)	1.38	1.22	1.02	1.01	0.88	0.36	 1.15 	0.42	1.13	0.90
P	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

TABLE 5

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been presented. The F values in Columns I are the results of the analyses of variance which compared the ten placements on the five static recidivism measures, without controls. The F values in Columns II reflect analyses of covariance, in which the placement groups were compared after adjusting for the effects of the covariates. The F values and probability levels for placements indicate the degree to which differences among placement groups on the observed and adjusted means can be considered statistically significant.

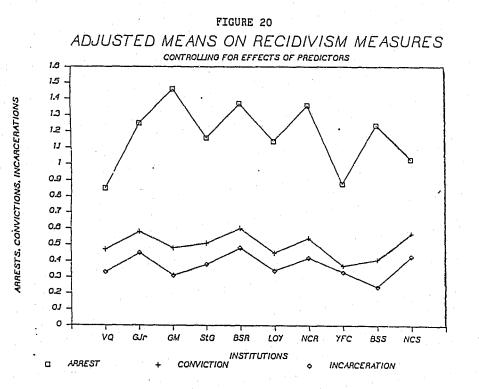
Interestingly, no significant differences were found on the observed means of <u>any</u> of the static recidivism measures. One may infer from these results that a juvenile released from one placement is as likely as any other juvenile to recidivate. As the last section of Table 2 also illustrates, there appear to be approximately equivalent numbers of cases at each placement who have low, moderate, and high scores on the various recidivism measures.

The scores in Columns II reflect the recidivism behavior of the placement groups after the covariates have been taken into account. Keeping in mind these relationships between the five predictors and the recidivism measures, the adjusted means can best be understood as the result of compensating for the effects of the five covariates on <u>each</u> <u>institution's</u> sample population. Given that there are differences <u>between</u> institutions on these important predictive measures, one would expect that the means of institutions which house the highest risk cases will be adjusted downward when the effects of the covariates are accounted for. Conversely, the means of institutions which house the lowest risk offenders will be adjusted upward.

This is exactly what happens. Consider a relatively extreme case. YFC #2 residents were observed for the longest follow-up periods, mainly because many of them were 1983 commitments who had short stays. They were therefore at risk much longer on average than subjects from other placements. As Table 5 illustrates, the observed mean number of postrelease arrests for YFC #2 releasees was 1.06 while the adjusted mean was only .88 arrests.

One must remember that the effects of the covariates may cancel each other out, with the net effect that the mean adjustment is very small. For instance, the secure institutions and Vision Quest tended to be low on the length of follow-up period because they kept subjects in placement longer, but were high on the measure of prior delinquent placements in that they tended to receive cases with many previous commitments. Thus, the net adjustment was often modest.

The adjusted mean scores for three of the recidivism measures, number of post-release arrests, convictions, and incarcerations, are figuratively presented in Figure 20. While there are apparent differences among the ten placement groups with respect to recidivism behavior, the analyses of covariance reveal that no significant differences among placements on the static recidivism measures are found. As Table 5 illustrates, after controlling for the effects of the five covariates, the ten placement groups are found to be indistinguishable with respect to recidivism as measured by: number of post-release arrests, post-release arrest rate, post-release convictions, post-release incarcerations, and number of arrests within the first 12 months after release.



V. <u>Investigating Differential Placement</u> <u>Effects on Types of Residents</u>

As detailed earlier, assignment to sample placement was not found to significantly influence releasees' performance on any of the five static dependent measures, either before or after the covariate terms were introduced. The researchers also looked for interaction effects between the sample placement variable and selected independent variables. A significant interaction would suggest that a particular placement would have had a differential impact on one subgroup of residents than would another placement. For example, an interaction of placement and offense history could indicate that the criminally experienced residents released from Placement A had demonstrably lower recidivism activity than that exhibited by a similar subgroup released from Placement B. One might infer, therefore, that Placement A is particularly suited for handling criminally experienced offenders. Each of the five risk factors (the covariates) was investigated for possible interaction effects with the sample placement variable. The analysis of covariance summarized in Table 5 was repeated with the addition of the five two-way interaction terms created by crossing each of the covariates with the sample placement variable. None of the interaction terms had a significant effect when this model was applied to the five static dependent recidivism measures. Nor was there any change in regard to the main effects. That is, the effect of the sample placement variable was never significant.

The researchers also checked for interaction effects involving the five risk factors through the analysis of variance. Each of the five static dependent measures was used in an analysis of variance with the five risk factors in a model which included all possible two and three way interaction terms among the risk factors, in addition to all possible main effects. None of the interaction terms was significant in the analyses using the three dependent measures based on arrests (arrest rate, total arrests, first year arrests).

For the analysis using post release convictions as the dependent measure, the effects of two different three way interaction terms were significant at the .05 level (the interaction of institutional ^f adjustment, prior delinquent placements and observation period; and the interaction of pre-placement arrest rate, age at release and observation period). For the analysis using post-release incarcerations as the dependent measure, the two way interaction term of pre-placement arrest rate and age at release was significant at the .05 level.

To summarize the results concerning interactions involving the risk factors, five analyses of variance (one for each static dependent measure) were performed, each including 20 two- and three-way interaction terms in addition to the main effects of the sample placement variable and the risk factors themselves. In these five analyses, only three interaction terms showed a significant effect. Given that there were in effect 100 significance tests of interaction terms performed across these five analyses, it is not surprising that in three instances there was a significant result at the .05 level. Because of the small number of significant interactions found, and because these interactions were not hypothesized and are not easily explainable with available theory, they are presumed to be statistical artifacts.

It is also worth noting that all three results occurred in analyses using convictions or incarcerations, rather than arrests as the dependent measure. Each of the three interactions terms contained one or both of the variables observation period or age at release (the two are closely related). The relationships between the conviction/ incarceration dependent measures of recidivism and the length of the post-release observation period are affected by case processing time. while the arrest-based measures are not. The relationships are also affected by many local factors and may therefore be unstable. For instance, it is generally known that case processing times are longest in Philadelphia compared to the other four geographical areas represented. This may account for the observation that some programs containing mostly Philadelphia juveniles fared poorly on the arrestbased measures, but appeared strong on the conviction- and incarceration-based measures. Their observation periods likely ended while many cases (represented by known arrests) were still pending.

The geographical area variable was examined for possible main and interaction effects. The only main effect noted on any of the static dependent measures involved post-release convictions. As noted above, this measure is known to depend somewhat on local court processing times. No interaction terms containing the area variable were ever significant. The race variable was never significant across the analyses, either as a main effect or within an interaction term; nor was the IQ variable.

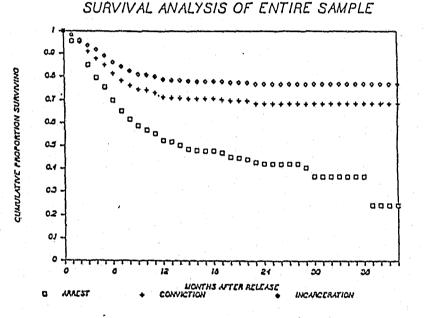
VI. Failure Rate Analyses: Investigating Recidivism Patterns Over Time

Survival Patterns for the Study Sample

The recidivism measures discussed in the report to this point are labeled <u>static</u> in that they are representations of simple counts of events; they do not take the timing of the events into account. Moreover, except for the arrest rate measure, they do not consider the differential lengths of follow-up time for the cases. These problems, censoring and the difficulty of considering the specific time the event (recidivism) occurred, were discussed at length in the proposal for the present study (Goodstein and Sontheimer, 1986). While this research has made use of the more conventional "static" recidivism measures, it also has employed newer techniques designed to deal with such problems.

Known as survival or failure rate analysis, this technique examines the pace of recidivism among offenders. It determines the proportion of offenders at risk who are arrested, convicted, or incarcerated in each successive month following release. It permits the use of censored data with varying follow-up periods, so that the available information for each case is optimized. An individual is considered to "survive" as long as he remains arrest-free. For each individual who experiences "failure" (re-arrest, conviction, or incarceration), the event is recorded in terms of the number of months from release in which the failure occurred. This concept is best illustrated by Figure 21 which plots the cumulative proportion of the sample surviving for each monthly interval of the follow-up period. The statistics from which these plots were derived can be found in Appendix D. At the 0 months point on the horizontal axis, no one has been re-arrested, and 100 per cent of the sample is surviving. Thus all three lines (arrest, conviction, and incarceration) begin at the value of 1 on the vertical axis. By the sixth month following release the proportion of the sample surviving as defined by re-arrest has declined to about .7 or 70 per cent. By the twelfth month the proportion has declined to about .5 or 50 per cent.

FIGURE 21



The slope or steepness of the lines corresponds to the relative risk of failure. Thus it is apparent that the risk of re-arrest is greatest during the first six months after release, after which it declines somewhat during months 7 to 12. After that point the line flattens out, indicating that if an individual has remained arrest-free for the first post-release year, he is likely to remain arrest-free, at least for the remainder of the observation period.

The plots for recidivism based on re-conviction or re-incarceration are interpreted in the same manner. It is important to note that the month corresponding to a failure based on one of these two measures is the month in which the act leading to the arrest occured, and not the month in which the individual was eventually convicted or incarcerated. As with arrests, the pattern is one of greatest risk immediately after release. The fact that the plots flatten out relatively quickly is attributable to the lack of complete data on conviction and incarceration, rather than to a true absence of risk. This is due to the time required for a case to proceed through the court system.

Survival Patterns for the Placement Groups

It is also possible, through the use of a particular variant of survival analysis called the <u>proportional hazards model</u> (Cox, 1972), to perform analyses equivalent to the covariance analysis described in Section IV. In this way, the effects of placement in specific institutions on recidivism can be estimated after controlling for variables known to be independent predictors of recidivism.

Three hazard rate analyses were performed. The first focused on the risk of arrest after release, the second on the risk of conviction, and the third on the risk of incarceration. In all cases, four of the five variables discussed in Section IV as predictive of recidivism were entered first into the models for control purposes, then the additional effects of each placement on the hazards of arrest/ conviction/ incarceration were investigated. The fifth control variable, length of follow-up observation time, was omitted, as follow-up time is automatically accounted for in this type of analysis [5].

Three models were estimated, one for each dependent variable, and their results are shown in Table 6. Individual placements were dummy coded as separate terms in the model. As an institution that appeared approximately average on the static recidivism measures, Loysville was not coded, thus becoming the institution to which all others were compared. The b coefficient can be interpreted as similar to a regression coefficient. The t-value can be used to determine whether the term has been found to significantly predict the dependent measure, for example, the hazards of arrest.

Certain "control" variables are found to be significant predictors of recidivism hazards for each analysis. As Table 6 shows, the likelihood of post-placement arrest is increased by higher pre-placement arrest rates, more delinquent placements and more institutional problems and is reduced as the age at release from placement increases. One's likelihood of post-release conviction is increased by more extensive experience with delinquent placements and is reduced for older, as opposed to younger, releasees. Risk of incarceration is increased for juveniles with more extensive experience with delinquent placements and more, as opposed to fewer, adjustment problems in placement; and it is reduced as the age at release increases.

Tests of the joint significance of the placements after adjusting for the covariates were run, and results indicate that assignment to placement was not significant in increasing or decreasing the hazard of

		Arrest	<u>s</u>	Co	nvictio	ons	I	Incarcerations		
	Ъ	t	exp(b)	Ъ	t	exp(b)	Ъ	t	exp(b)	
Rate of Arrests	.44	3.07**	1.55	.07	.37	1.07	.14	.64	1.15	
Delinquent Placements	.22	2.63**	1.24	.35	3.10*	* 1.42	.39	2.96*	* 1.47	
Institutional Problem Index	.08	2.43*	1.08	.06	1.34	1.06	.11	2.35*	1.11	
Age at Release	16	-2.66**	.86	33	-4.54	** .72	45	-5.39*	* .64	
Vision Quest	26	57	.77	46	-1.10	.63	52	-1.05	.59	
George Junior	16	58	.85	.04	.12	1.04	.11	.27	1.11	
Glen Mills	.32	1.20	1.37	.23	.65	1.26	.02	.04	1.02	
St. Gabriel's	06	23	.94	.08	.25	1.09	.02	.07	1.02	
Bensalem Residential	.15	•54	1.16	.18	.49	1.20	•39 [.]	.96	1.48	
New Castle Residential	.31	1.20	1.37	.19	.54	1.21	.19	.50	1.21	
YFC#2	.05	.17	1.05	.26	.74	1.20	.44	1.09	1.55	
Bensalem Secure	05	34	.91	33	80	.72	40	79	.68	
New Castle Secure	19	57	.83	.30	.74	1.35	.37	.79	1.44	

Coefficient Estimates for Proportional Hazards Models of Post-Release Arrests, Convictions, and Incarcerations

*Significant at .05 level **Significant at .01 level

TABLE 6

recidivism. The likelihood ratio tests, reflecting the difference in log likelihoods under the full models and the restricted models (maximization restricted to variables not eliminated), were not statistically significant for any of the three dependent measures (arrests, X2 = 9.59, df(9), n.s.; convictions, X2 = 6.73, df(9), n.s.; incarcerations, X2 = 8.14, df(9), n.s.).

While the coefficients vary considerably, examination of the tvalues in Table 6 reveals, however, that none of the placements appears to have a significant impact on the hazards of arrest, conviction or incarceration.

Further tests to determine whether any two placements could be considered significantly differe \div from one another were run. Post hoc analyses yielded a finding that releasees from New Castle Residential were significantly more likely to be arrested than were residents released from Vision Quest (z = 5.18, df(9), p < .05). Other post hoc pairwise comparisons yielded no significant differences between any other placement groups on any of the three failure rate measures.

Discussion

This study was designed to take a "broad brush" approach to the problem of evaluating correctional placements for juveniles. At the start of the study the researchers were given the charge of attempting to determine, for as many residential placements as was possible, whether any were more effective than any others in reducing the extent of recidivism among their releasees. No specific hypotheses concerning whether certain placements would be more effective than certain other placements were posed.

The investigators selected ten placements, taking care to include placements which provided a range of facilities with respect to geographical location, public versus private funding; and level of custody. Data were collected on approximately 50 cases per placement, for a total data base of 527 cases. If the effects of certain placements on recidivism rates had been strong, the number of cases per placement would have been sufficient to yield statistically significant differences among the placements.

With the exception of the fact that releasees from New Castle Residential were more likely to be arrested than Vision Quest releasees, the study fails to demonstrate statistically significant differences among the ten placement groups on any of the recidivism measures used in the present study. This was the case both before and after appropriate control variables were introduced into the analyses. How should these results be interpreted? Should we conclude that the decision to place a juvenile in one residential institution as opposed to another will have no impact on his or her likelihood of criminal activity after release?

The study results can be interpreted to mean that the selection of a residential placement will probably not have a <u>major</u> impact on the tendencies of most juveniles to engage in criminal activity after release. Certainly, if strong effects existed, for example, if only 10 percent of those released from Placement #1 recidivated while 90 percent from Placement #2 recidiviated (after introducing appropriate controls), the present study would have been able to make definitive conclusions about the superiority of Placement #1.

This is not to say that the study demonstrated no effects of placements. It is still possible that weak placement effects do exist, but that the study as designed was not capable of detecting them. The study design was intended to be as inclusive and broad as possible with respect to number and diversity of placements. However, making comparisons among any two of ten groups, without specific hypotheses as to which groups are expected to be more effective and which groups less so, dramatically reduces the power of the statistical tests, thus lowering the likelihood that significant differences will be found. In addiiton, samples of 50 cases per institution may appear large, but given the variability on recidivism within each placement group, they may have not been large enough to detect real, but small, effects of the placements.

Moreover, it is suggested that small effects of placement in one residential institution as opposed to another on recidivism rates are the most that one should expect. This inference is supported by . extensive research on predictors of recidivism, which finds personal attributes of the juvenile, such as criminal history and age at release, to be important predictive factors (Loeber and Dishion, 1983) and assignment to specific correctional placements only rarely to affect post-release criminality. This attenuated impact of correctional placement relative to more central factors is logical when one considers that juveniles in this sample spend on the average only about nine months in placement. Even assuming that the placement experience has been a good one, to what extent should we expect that this experience will influence that juvenile's criminal involvement once he or she has returned to his or her home community? One might speculate that the power of the placement experience over the behavior of a resident diminishes rapidly once the juvenile is no longer subjected to its sphere of influence.

General Findings from the Present Study

The fact that no substantive conclusions can be made about the superiority of one residential placement over another is, in itself, an important finding. While it is possible that further research will enable weak effects to be uncovered, results from this study suggest that it is unrealistic to expect that placement in one residential institution as opposed to another will have a major impact on postrelease recividism for large numbers of juveniles.

This study, like many other prediction studies, has shown that the best way to predict future performance is to look at past performance. To the extent that it can be predicted, post release recidivism is most closely related to a juvenile's prior offense history, his experience in earlier delinquent placements, and his behavior in those placements (as well as in school). The other factor which is clearly important in predicting recidivism, age at release, is not based on past performance but appears to reflect developmental changes. As boys enter young adulthood, some who had been criminally active appear to reduce their involvement, reducing the recidivism rates for this older group as a whole.

Variables which were <u>not</u> found to be predictive of recidivism are as interesting as those that were. No effect was found for race; whites were as likely as minority releasees to engage in post release criminal activity. Moreover, while extensive data were collected on the residents' family situation and potential chemical dependency, none of this information was found to be predictive of post release criminality. This was also the case for the sparse information available concerning post release environment. Living with one's parents did not tend to deter criminal activity. Nor did receiving professional services such as counseling or day treatment.

The failure to uncover effects of family background or chemical dependency on recidivism rates may be related to the general similarity among most of our cases on these types of measures. It should be recalled that this population comprises only a small percentage of all adjudicated juveniles in Pennsylvania, most of whom are not sent to residential facilities. It is quite possible that our cases in the sample are relatively homogeneous with respect to chemical dependency and family background, and that in some way, these variables influenced judges in their decisions to place. It is impossible to know, given our current data base, whether this group would be distinguished from nonplaced adjudicated juveniles. However, homogeneity within our sample could account for the failure to identify these variables as predictive of recidivism, while not refuting the findings of other studies which employed more heterogeneous samples.

It is also possible that the fact that family background and chemical dependency are not predictive of recidivism in this study reflects more about the limitations of gathering data from case files than about the potiential relationships themselves. Files were carefully scanned, and the information contained within them was generally quite extensive. However, characterizing social climate in the home, for example, is a subtle issue, one which may simply not be well conveyed in the types of reports included in case files.

Suggestive Findings

While the study results preclude making inferences about the relative effectiveness of the ten placements in reducing recidivism, we do view the results as suggestive. Table 7 presents a summary of the results of both the analyses of covariance and the failure rate analyses in which for each dependent variable the scores of the ten placement groups have been ordered from lowest to highest. For the static measures the score used is the adjusted mean; for the failure rate analyses the score used is the coefficient estimate, which can be viewed as similar to an unstandardized regression coefficient.

Recidivism behavior has been categorized into two groups, arrest measures and conviction and incarceration measures [6]. While it should be stressed that the adjusted means and coefficients were not found to differ significantly on the earlier analyses, several patterns emerge that may suggest directions for futher research.

By organizing the data in this manner, one can notice that the Vision Quest group is distinguished by its relatively low scores on both arrest and conviction/incarceration measures. This may be due to the fact that releasees from Vision Quest were followed up for fewer months than releasees from any other placement. Indeed, there were more censored cases even during the first year of follow-up from Vision Quest than from any other placement [7]. On the other hand, the results suggest that Vision Quest releasees manifest a pattern of post-release behavior which appears to be less criminally active than releasees from other placements.

This contrast is particularly striking when one considers the recidivism patterns of juveniles released from the two public residential facilities which housed more "serious" offenders, Bensalem and New Castle Residential. Releasees from both of these facilities manifested scores on the recidivism measures which were consistently at the high ends of the distributions.

One might also note the apparent differences in recidivism patterns between the residential and secure facilities at New Castle and Bensalem. New Castle Secure releasees performed relatively well on arrest measures, while Bensalem Secure releasees performed relatively well on incarceration/conviction measures. In any case, the recidivism patterns of releasees from secure placements appear somewhat more favorable than those for releasees from the residential sections of these institutions.

Rankings of Ten Residential Placements on Adjusted Means from Covariance Analyses and Exponentiated Coefficients from Proportional Hazards Models

TABLE 7

	(Lowest	:)		• •	Ranking	zs				(Highest
	1	2	3	4	5	6	7	8	9	10
		······		· ·	Post-Rele	ease Arre	sts	· · · · · ·		·
Arrest Rate	VQ	NCS	YFC	LOY	GJR	STG	BSS	NCR	BSR	GMS
•	0.47	0.55	0.59	0.66	0.76	0.76	0.77	0.82	0.85	0.92
Arrests	VQ	YFC	NCS	LOY	STG	BSS	GJR	NCR	BSR	GMS
	0.85	0.88	1.03	1.14	1.16	1.24	1.25	1.36	1.37	1.46
Arrests During	VQ	NCS	YFC	GJR	BSS	STG	BSR	LOY	GMS	NCR
First 12 Months	0.55	0.67	0.76	0.81	0.85	0.90	0.90	0.90	1.01	1.08
Hazards of	VQ	NCS	GJR	BSS	STG	LOY	YFC	BSR	NCR	GMS
Arrest	0.77	0.83	0.85	0.91	0.94	1.00	1.05	1.16	1.37	1.37
			Pe	ost Releas	e Convict	ions and	Incarcer	<u>ations</u>		
Convictions	YFC	BSS	LOY	VQ	GMS	STG	NCR	NCS	GJR	BSR
	0.37	0.41	0.45	0.47	0.48	0.51	0.54	0.58	0.58	0.60
Incarcerations	BSS	GMS	VQ	YFC	LOY	STG	NCR	NCS	GJR	BSR
	0.24	0.31	0.33	0.33	0.34	0.38	0.42	0.43	0.45	0.48
Hazards of	VQ	BSS	LOY	GJR	STG	BSR	NCR	GMS	YFC	NCS
Conviction	0.63	0.72	1.00	1.04	1.09	1.20	1.21	1.26	1.30	1.35
Hazards of	VQ	BSS	LOY	GMS	STG	GJR	NCR	NCS	BSR	YFC
Incarceration	0.59	0.68	1.00	1.02	1.02	1.11	1.21	1.44	1.48	1.55

57

The researchers did conduct supplementary checks of juvenile and adult arrest records during September 1987 for all cases (n=41) which had less than 12 months of follow-up time when the original data collection period ended in December 1986. This was considered important because of the many Vision Quest cases with less than a full year of follow-up. The findings had minimal impact on the recidivism measure of arrests within the first 12 months of release. Of the 41 cases, only four who were previously classified as non-recidivists were discovered to have been rearrested during the first post-release year (one each from Vision Quest, Bensalem Residential, New Castle Residential, and Bensalem Secure).

However, at least ten other subjects previously classified as recidivists based on one or more known arrests were discovered to have accrued additional arrests in the period from December 1986 to September 1987. For example, two Vision Quest cases had additional arrests, including one with four new arrests. This illustrates the importance of adequate and comparable follow-up periods. If the analyses previously described in this report were repeated with the inclusion of these data, some of the rankings in Table 7 might change. When these data along with additional follow-up data on all cases in the sample are eventually reanalyzed, we will have a clearer picture of long term recidivism patterns. The findings as they stand call for additional research targeted more specifically at placements used for criminally experienced juveniles, including Vision Quest.

Directions for Further Research

This study has served as a potentially important first step in a research program to identify effective residential placements. It has provided the type of information which will enable researchers to make more precise and specific comparisons of institutional effectiveness.

From the comparative data on the samples of the 10 placements, it appears that judges select from a narrow range of placements for any given juvenile. Certain placements, including Glen Mills, George Junior, Loysville, and St. Gabriel's, comprise the range of choices for juveniles who are younger and less criminally experienced. For juveniles who are more criminally experienced and who have more extensive placement histories, judges appear to exercise the option of either Vision Quest or one of the public residential or secure placements.

Future research should direct itself to performing "head to head" comparisons of placements which pose themselves as <u>real</u> choices for judges. Considering the suggestive findings in the present study, further investigation of recidivism patterns of newly selected samples from Vision Quest, public residential, and public secure facilities (either New Castle or Bensalem, or both) should be considered. With fewer comparisons to make, significant differences among the placements could be uncovered in a replication of the present study even if the effects are relatively weak. 1. In certain circumstances, cases who were known to have been released less than twelve months prior to data coding were included in the study sample. Cases were only retained in instances in which they could not be replaced. For example, for some of the smaller institutions, researchers attempted to obtain data on the total number of juveniles placed during 1984, and some programs kept residents in placements for longer periods; rejection of such cases would have depleted the sample size, causing interpretation difficulties.

2. See Appendix A for county breakdowns.

3. While statistical techniques designed to determine whether each of the ten groups is significantly different from others were performed, they will not be presented in the text or table unless the finding is conceptually significant.

4. Due to the importance of the age variable in recidivism research, age at release from sample placement was retained in the regression runs despite the fact that it was significantly correlated with only three of the six recidivism measures. Age at sample placement was not included, as its correlation with age at release was .95.

5. For hazard analysis a more conservative criterion for defining observation period was used. Specifically, for juveniles who never failed (no known arrests) and who were still less than 18 years of age as of December 5, 1986, the observation period was considered to end on the date the record was coded. For all other analyses, the observation period for these juveniles was considered to end on December 5, 1986.

6. These have been considered separately because there are different problems associated with each group. Arrests, for example, are probably less influenced by inadequate follow-up periods and by differential delays in case processing. On the other hand, arrest measures may include unsubstantiated or trivial offenses. While we would argue that the arrest data provide a more valid picture of post-release criminal behavior, all types of data are important in providing an adequate picture of recidivism behavior.

It is also important to mention that these measures are, by definition, highly related to one another and convey much of the same information. On the other hand, each one conceptualizes recidivism in a slightly different manner, and, as the following table illustrates, the intercorrelations among these measures are certainly not perfect.

NOTES

Correlation Matrix of Static Recidivism Measures

	2	3	4	5
 Arrest Rate # Arrests # Conv's. # Incar's. Arrests in first 12 mo. 	.94	.55 .65	.46 .53 .88	.88 .85 .60 .54

7. Twelve cases, or 23 percent of the Vision Quest sample, had been followed for less than 12 months after release when the original data collection period ended in December 1986. As described on page 58, some additional data collection was done in September 1987, but the analyses in this report do not reflect this more recent information. For breakdowns of all cases followed for less than 12 months, see Appendix C.

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APPENDIX A

Recoding Scheme for Categorization of Referring County

- (1) PHILADELPHIA
- (2) ALLEGHENY
- (3) OTHER URBAN: BERKS

DAUPHIN ERIE LACKAWANNA LUZERNE NORTHAMPTON LEHIGH

BUCKS CHESTER DELAWARE

(4) SUBURBAN:

(5) RURAL:

MONTGOMERY BEAVER BLAIR BUTLER CENTRE CLINTON CRAWFORD CUMBERLAND FAYETTE LANCASTER LAWRENCE LEBANON MONROE PIKE SCHUYLKILL SOMERSET TIOGA WASHINGTON WESTMORELAND

APPENDIX B

Scales and Indexes Used in the Study

SCHOOL PROBLEM INDEX

QUESTION

5. 1.51 6. 1.60

POSSIBLE RESPONSES

9.09

1. DESCRIBE SUBJECT'S ATTENDANCE 1=NO PROBLEM 1.33-SOME TRUANCY--FEWER THAN 6 DAYS/SEMESTER; OR TRUANCY, FREQUENCY UNSPECIFIED 1.67-MAJOR TRUANCY--7 OR MORE DAYS/SEMESTER 2=DROPPED OUT 2. DESCRIBE ANY DISCIPLINARY ACTION 1--NONE; OR IN-SCHOOL SUSPENSIONS 1.33-1 OR 2 OUT-OF-SCHOOL SUSPEN-SIONS; OR SUSPENSION --TYPE/NUMBER UNSPECIFIED 1.67-3 OR MORE OUT-OF-SCHOOL SUSP. 2-EXPELLED 3. HAS SUBJECT SHOWN AGRESSIVE OR 1-NO; 2-YES DISRUPTIVE BEHAVIOR 4. IS SUBJECT'S ACHIEVEMENT LEVEL 1=NO; 2=YES2 OR MORE YEARS BEHIND GRADE . LEVEL 5. DID SUBJECT EVER PARTICIPATE IN 1=NO; 2=YES AN ALTERNATIVE EDUCATION PROGRAM 6. DID SUBJECT EVER FAIL A GRADE 1=NO; 2=YES ITEM MEANS 1. 1.49 COEFFICIENT ALPHA: .63 1.51 2. 1.31 AVERAGE ITEM MEAN: 3. 1.63 SCALE RANGE: 6 TO 12 4. 1.56 SCALE MEAN:

ADAPTED FROM: MASTER FILES NOTE: All questions relate to subject's pre-sample placement school experience. When missing values were deleted listwise, there were 317 missing cases. Cases with a minimum of three valid values were considered valid. Scale scores were estimated for cases with three or fewer missing values by averaging the valid values and multiplying this figure by 6. This procedure reduced the number of cases missing data on this variable to 63.

DRUG AND ALCOHOL PROBLEM INDEX

QUESTION

POSSIBLE RESPONSES

- 1. EVIDENCE THAT DRUG USE IS A PROBLEM
- 2. EVIDENCE THAT ALCOHOL USE IS A PROBLEM
- 3. SUBJECT IS OR HAS BEEN INVOLVED 1 IN DRUG PROGRAM

1-NO; 2-YES, MINOR; 3-YES, MAJOR

- 1-NO; 2-YES, MINOR; 3-YES, MAJOR
- 1-NO; 2-YES, MINOR; 3-RESIDENTIAL PROGRAM

ITEM MEANS

1. 1.89 2. 1.70 3. 1.26 COEFFICIENT ALPHA: .76 AVERAGE ITEM MEAN: 1.61 SCALE RANGE: 3 TO 9 SCALE MEAN: 4.84

ADAPTED FROM: MASTER FILES

NOTE: Data were nearly complete for all items. When missing values were deleted listwise to compute the scale, there were only 5 missing cases out of 527. The scale score was computed by summing the values on the three items for each case.

FAMILY INSTABILITY INDEX

QUESTION

POSSIBLE RESPONSES

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- "IS THERE EVIDENCE OF:
- 1. NEGLECT, OR LACK OF PARENTAL SUPERVISION
- 2. INCONSISTENT OR INEFFECTIVE PARENTAL CONTROL
- 3. EXTREME PUNITIVENESS OR ABUSE TO SUBJECT
- 4. PARENTAL ALCOHOL ABUSE/DEPENDENCE
- 5. PARENTAL DRUG ABUSE/DEPENDENCE
- 6. PARENTAL OR SIBLING CRIMINALITY
- 7. DESCRIBE SUBJECT'S FAMILY CONSTELLATION FOR MAJORITY OF HIS LIFE
- 8. DESCRIBE STABILITY OF ADULT FIGURES FOR MAJORITY OF SUBJECT'S LIFE

1-BOTH NATURAL PARENTS 2-ONE NATURAL PARENT (ALONE OR WITH STEP-PARENT) 3=ADOPTIVE OR SURROGATE PARENTS (e.g. GRANDPARENTS)

1-NO; 2-YES, MINOR; 3-YES, MAJOR

ITEM MEANS

1.	1.	69
2.	2.	28
3.	1.	22
4.	1.	40
5.	1.	12
6.	1.	57
7.	1.	77
8.	1.	99

COEFFICIENT ALPHA: .66 AVERAGE ITEM MEAN: 1.63 SCALE RANGE: 8 TO 24 SCALE MEAN: 13.05

ADAPTED FROM: MASTER FILES

NOTE: When missing values were deleted listwise, there were 23 missing cases. When cases with at least six valid values were considered, the number of missing cases was reduced to 7.

INSTITUTIONAL PROBLEM INDEX

QUESTION

POSSIBLE RESPONSES

1. RULE INFRACTIONS

1-NONE; OR MINOR; 3-YES, MAJOR

2. AWOL OR ESCAPE

1-NO; 3-YES

1-NO; 3-YES

3. NEW CRIMINAL CHARGES INCURRED DURING SAMPLE PLACEMENT

4. NON-EDUCATIONAL PROGRAM PARTICIPATION 1=YES, SUCCESSFULLY 2=NONE 3=REMOVED OR FAILED

ITEM MEANS

2. 1.29 AVERAGE ITEM MEAN: 1.34 3. 1.20 SCALE RANGE: 4 TO 12 4. 1.45 SCALE MEAN: 5.37	1. 1.43	COEFFICIENT ALPHA:	.60
	2. 1.29	AVERAGE ITEM MEAN:	1.34
4. 1.45 SCALE MEAN: 5.37	3. 1.20	SCALE RANGE: 4 TO 12	
	4. 1.45	SCALE MEAN:	5.37

NOTE: All questions relate to subject's experience in the sample placement. When missing values were deleted listwise, there were 52 missing cases. The scale was computed for each case for which there were at least three valid items out of the four scale items. Scale scores with missing values were estimated by averaging the three valid values and then multiplying this figure times four to "re-scale" it to the proper scale range. If less than three valid values were present for a case, the scale score for that case was considered missing. This method reduced the number of missing cases for this index to three.

APPENDIX C

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Cases Withdrawn During First 12 Months by Sample Placement

	VQ	GJR	GM	STG	BSR	LCY	NCR	YFC	BSS	NCS	TOTAL
Withdrew Mos. 1-12	12	1	2	1	5	0	5	1	10	4	41
Sample N	52	58	54	50	52	51	56	54	57	43	527
% Withdrew Mos. 1-12	23%	2%	48	28	10%	08	98	2୫	18%	98	88

APPENDIX D

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Survival Table for Study Sample -- Arrests

INTVL START TIKE	NUNBER Entrig This Intvl	NUMBER Udraun During Intvl	NUHPER Exposd To Risk	NURBER OF TERKHL EVENTS	PROPH Terki- Nating	- Propn Survi- Ving	CUHUL Proph Surv At End	PROBA- Bility Densty	HAZARD RATE	SE OF Cuhul Surv- Iving		SE OF HAZRD RATE	
			*****		*****			*					
.0	. 527.0	.0	527.0	24.0	.0455	.9545	.9545	.0455	.0466	.009	.009	.010	
1.0	503.0	.0	503.0	23.0	.0457	.9543	.9108	.0436	.0468	.012	.009	.010	
2.0	480.0	.0	480.0	33.0	.0687	,9313	.8482	.0626	.0712	.016	.011	.012	
3.0	447.0	.0	447.0	31.0	.0694	.9306	.7894	.0588	.0718	.018	.010	.013	
4.0	416.0	.0	416.0	20.0	.0481	.9519	.7514	.0380	.0493	.019	.008	.011	
5.0	396.0	1.0	395.5	29.0	.0733	.9267	.6963	,0551	,0761	.020	.010	.014	
6.0	366.0	4.0	364.0	26.0	.0714	.9256	.6466	.0497	.0741	.021	.010	.015	
7.0	336.0	1.0	335.5	28.0	.9537	.9463	.6119	.0347	.0551	.021	.008	.013	
8.0	317.0	3.0	315.5	14.0	.0444	.9556	.3847	.0272	.0454	.022	.007	.012	
9.0	300.0	5.0	297.5	10.0	.0336	.9664	.3651	.0197	.0342	.022	.006	.011	
10.0	285.0	9.0	240.5	7.0	-0250	.9750	.5510	.0141	.0253	.022	.005	.010	
11.0	269.0	5.0	246.5	13.0	.0488	,9512	.5241	.0269	.0500	.023	.007	.014	
12.0	251.0	7.0	247.5	3.30	.0121	.9879	.5178	.0064	-0122	.022	.004	.007	
13.0	241.0	5.0	238.5	5.0	.0210	.9790	.5069	.0107	.0212	5201	.005	.009	
14.0	231.0	6.0	228.0	7.0	.0307	.9693	.4913	.0156	.0312	.022	,006	.012	
12,0	318.0	22.0	207.0	2.0	.0097	. 9903	.4866	.0047	.0097	.022	.003	.007	
15.0	194.0	10.0	189.0	1.0	.0053	.9947	.4840	.0026	.0053	.022	.003	.005	
17.0	183.0	25.0	170.5	.0	.0000	1.0000	4840	.0000	.0000	.022	.000	.000	
18.0	158.0	20,0	148.0	2.0	,0135	.9865	.4775	.0065	.0136	.022	.005	.010	
19.0	136.0	12.0	130.0	5.0	.0385	.9615	,4591	.0184	.0392	.023	.008	.018	
20.0	119.0	18.0	110.0	1.0	.0091	. 9909	,4349	.0042	.0091	.023	.004	.009	
21.0	100.0	14.0	93.0	1,0	.0108	. 9892	.4500	.0049	.0108	.023	.005	.011	
22.0	\$5.0	5.0	80.5	2,0	.0248	.9752	.4389	.0112	.0252	.024	.008	.018	
23.0	74.0	9.0	69.5	1.0	.0144	.9856	.4326	.0063	.0145	.025	.006	.014	
24.0	64.0	9.0	59.5	.0	.0000	1.0000	.4326	.0000	.0000	.025	.000	.000	
25.0	\$5.0	9.0	50.5	.0	.0000	1.0000	.4326	.0000	.0000	.025	.000	.000	
36.0	46.0	6.0	43.0	,0	.0000	1.0000	.4326	.0000	.0000	.025	.000 -	.000	
27.0	40.0	7.0	26.5		.0000	1.0000	.4326	.0000	,0000	,025	.000	.000	
28.0	33.0	.0	29.0	1.0	,0345	.9655	.4176	.0149	.0351	.028	.015	.035	
29.0		7.0	20.5	2.0	,0976	,9024	,3769	.0407	.1026	.037	.028	.072	
30.0		4.0	13.0		.0000	1.0000	.3769	.0000	.0000	.037	.000	.000	
31.0	11.0	4.0	9.0	.0	.0000	1.0000	.3769	.0000	.0000	.037	.000	.000	
32.0	7.0	3.0	5.5	.0	.0000	1.0000	.3769	.0000	.0000	.037	.000	.000	
33.0	4.0	1,0	3.5	.0	.0000	1.0000	.3769	.0000	.0000	.037	.000	.000	
34.0	3.0	.0	3.0	.0	.0000	1.0000	. 3769	.0000	.0000	.037	.000	.000	
35.0		.0	3.0	.0	.0000	1,0000	. 2769	.0000	.0000	.037	.000	.000	
36.0		.0	3.0	1.0	. 3333	.6667	.2513	.1256	.4000	.106	.103	.392	
37.0			2.0	.0	.0000	1.0000	.2513	.0000	,0000	.106	.000	.000	
38.0		.0	2.0	.0	.0000	1.0000	.2513	.0000	.0000	.106	,000	.000	
39.0		.0	2.0	.0	.0000	1.0000	.2513	.0000	.0000	.106	.000	.000	
40.0	. 2.0	2.0	1.0	.0	.0000	1.0000	.2513	• •		.106	••	••	

... THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE NEDIAN BURVIVAL TIME FOR THESE DATA IS 13.91

Survival Table for Study Sample -- Convictions

INTVL START	NUMBER Entrig This	NUNBER Udraun During'	HUNBER Exposo To	NURBER OF TERNHL	PROPN TERMI-	PROPH SURVI-	CUNUL PROPN SURV	PROBA- BILITY	HAZARD	SE OF Cuhul Surv-	SE OF PROB- Abilty	SE OF Hazrd	
TIXE	INTVL	INTVL	RISX	EVENTS	NATING	VING	AT END	DENSTY	RATE	IVING	DENS	RATE	
.0	527.0	.0	527.0	12.0	.0228	.9772	.9772	.0228	.0230	.006	.006	.007	
1.0	515.0	.0	515.0	14.0	.0272	,9728	.9507	.0266	.0276	.009	.007	.007	
2.0	501.0	.0	501.0	21.0	.0419	,9581	.9108	.0398	.0428	.012	.009	.009	
3.0	480.0	••	480.0	17.0	,0354	.9646	.8786	.0323	.0361	.014	.008	.009	
4.0	463,0	•••	463.0	14.0	.0302	.9698	.8520	.0266	.0307	.015	.007	.008	
5.0	449.0	1.0	448.5	19.0	.0424	.9576	.8159	.0361	.0433	.017	.008	.010	
6.0	429.0	3.0	426.5	16.0	.0375	.9625	.7853	.0306	.0382	.018	.008	.010	
7.0	408.0	3.0	406.5	10,0	.0246	.9754	,7660	,0193	.0249	.018	.006	.008	
a.0	395.0	4.0	393.0	8.0	.0204	,9796	.7504	.0156	.0206	.019	.005	.007	
9.0	383.0	6.0	360.0	2.0	.0053	.9947	.7464	.0039	.0053	.019	.003	.004	
10.0	375.0	12.0	369.0	5.0	.0136	.9864	.7363	.0101	.0136	.019	.004	.006	
11.0	358.0	9.0	353.5	8.0	.0226	. 9774	.7197	.0167	.0229	.020	.006	.008	
12.0	341.0	10.0	336.0	5.0	.0060	.9940	.7154	.0043	.0060	.020	,003	.004	
. 13.0	329.0	7.0	325.5	.0	.0000	1.0000	.7154	.0000	.0000	.020	.000	.000	
14.0	322.0	11.0	316.5	1.0	.0032	.9968	.7131	.0023	.0032	.020	.002	.003	
15.0	310.0	35.0	292.5	.0	.0000	1.0000	.7131	.0000	.0000	.020	.000	.000	
16.0	275.0	18.0	266.0	.0	.0000	1.0000	.7131	.0000	.0000	.020	.000	.000	
17.0	257.0	- 33.0	240.5	.0	.0000	1.0000	.7131	.0000	.0000	.020	"oqn	.000	
18.0	224.0	30.0	209.0	1.0	.0048	.9952	.7097	.0034	.0048	.020	.003	.005	
19.0	193.0	20.0	143.0	1.0	.0055	. 2945	.7058	.0039	.0055	,020	.004	.005	
20.0	172.0	24.0	160.0	.0	.0000	1.0000	.7058	.0000	.0000	.020	.000	.000	
21.0	848.0					1.0000	.7038	,0000	.0000	.020	.000		
		19.0	138,5		.0000						.000	•000	
53.0	129.0	15.0	121.5	2.0	.0165	,9835	.6942	.0116	.0166	.022		.012	
23,0	112.0	13.0	105.5	.0	.0000	1.0000	.6942	.0000	.0000	.022	000	.000	
24.0	99.0	12.0	93.0	••	.0000	1.0000	.6942	.0000	.0000	.022	.000	.000	
25.0	47.0	15.0	79.5	.0	.0000	1,0000	.6942	.0000	.0000	.022	.000	.000	
26.0	72.0	11.0	66.5	••	.0000	1,0000	.6942	.1.0000	.0000	.022	,000	.000	
27.0	61.0	15.0	53.5	••	,0000	1.0000	.6942	.0000	.0000	.022	•000	.000	
58.0	46.0	10.0	41.0	•••	•0000	1.0000	.6942	.0000	.0000	.022	.000	.000	
29.0	36.0	4.0	32.0	.0	•0000	1,0000	.6942	.0000	.0000	.022	.000	.000	
30.0	28.0	8.0	24.0	.0	.0000	1,0000	.6942	.0000	,0000	,022	.000	.000	
31.0	20.0	6.0	17.0	.0	.0000	1.0000	.6942	.0000	.0000	.022	.000	.000	
32.0	14.0	4.0	12.0	.0	.0000	1,0000	.6942	.0000	.0000	.022	.000	.000	
33.0	10.0	3.0	·. 8.5	••	.0000	1.0000	.6942	.0000	.0000	.022	.000	.000	
34.0	7.0	1.0	6,5	•0	.0000	3 9000	.6942	,0000	,0000	.022	.000	.000	
35.0	6.0	0	6.0	.0	.0000	1, 1000	.6942	.0000	.0000	.022	.000	.000	
36,0	6.0	1.0	5.5	.0	.0000		.6942	.0000	.0000	.022	.000	.000	
27.0	5.0	.0	5.0	.0	.0000	1.0000	.6942	.0000	.0000	.022	.000	.000	
	5.0	.0	. 5.0	ډ.	.0000	1,0000	.6942	.0000	.0000	.022	.000	. 000	
39.0	5.0	1.0	4.5	•0	.0000	1,0000	. 61142	.0000	.0000	.022	.000	.000	
40.0	• 4.0	4.0	2,0	.0	.0000	1,0000	.6342	••	• ••	.022	••		

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.. THESE CALCULATIONS FOR THE LAST INTERVAL ARE HEAMINGLESS.

THE NEDIAN SURVIVAL TIME FOR THESE DATA IS 40.00-

Survival Table for Study Sample -- Incarcerations

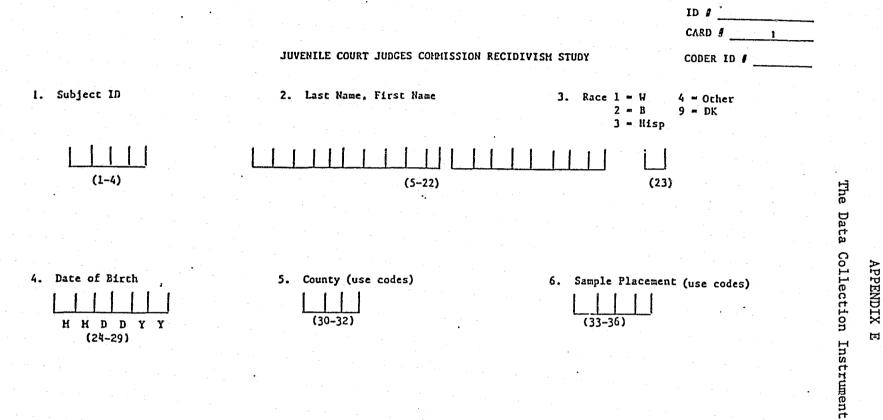
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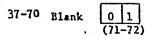
۰.

INTVL Start Tike	NUKBER Entrng This Intvl	NUNDER Udravn During Irtvl	NUXBER Exposd To Risk	NUXBER OF TERNNL EVENTS	PROPN Terni- Nating	Proph Survi- Vikg	CUMUL Propn Surv At End	PROBA- Bility Densty	HAZARD Rate	SE OF Cuxul Surv- Iving	SE OF Prob- Abilty Dens	RATE	
******	*****			unner:	*****					0.05			
.0	527.0	•0	527.0	a. ¢	.0152	.9848	.9848	.0152	,0153	.005	.005	,005	
1.0	519.0	.0	519.0	12.0	.0231	.9769	,9620	.0228	,0234	.008	.006	,007	
2.0	507.0	.0	507.0	13.0	.0256	.9744	.9374	.0247	.0260	.011	.007	.007	
3.0	494.0	0	194.0	10.0	,0202	.9798	.9184	.0190	.0204	.012	.005	,008	
4.0	484.0	•0	484.0	14.0	.0289	.9711		.0266		.014			
5.0	470.0	1.0	469.5	15.0	10319	.9681	.8633	.0285	.0325	.015	.007	.008	
6.0 7.0	454.0	5.0	451.5	10,0	.0221	.9779	.8442	.0191	.0224	.016	.006	.007	
a.o	439.0 427.0	3.0	437.5	9.0	.0206	,9794 ,9835	.8269	.0174	.0166	.017	.005	.006	
3.0	416.0	6.0	413.0	2.0	.0046	.9952	.8093	.0039	.0049	.017	.003	.003	
10.0	408.0	13.0	402.0	3.0	.0075	.9925	.8033	.0060	,0075	.017	.003	,004	
11.0	393.0	9.0	388.5	5.0	.0129	.9871	.7929	.0103	.0130	.018	.005	.006	
12.0	379.0	11.0	373.5	2.0	.0054	.9946	.7887	.0042	.0054	.018	.003	.004	
13.0	366.0	7.0	362.5	.0	.0000	1.0000	.7887	.0000	.0000	.018	.000	,000	
14.0	359.0	11.0	353.5	1.0	.0028	.9972	.7864	.0022	.0028	.018	.002	.003	
15,0	347.0	35.0	329.5	1.0	.0030	.9970	.7841	.0024	.0030	.018	.002	.003	
16,0	311.0	19.0	301.5	.0	.0000	1.0000	,7841	.0000	.0000	.018	.000	.000	
17.0	292.0	38.0	273.0	.0	,0000	1.0000	.7841	.0000	.0000	.018	.000	,000	
18.0	254.0	35.0	236.5	.0	.0000	1.0000	.7841	.0000	.0000	.018	.000	.000	
19.0	219.0	23.0	207.5	1.0	.0048	.9952	.7803	.0038	.0048	.018	.004	.005	
20.0	195.0	27.0	141.5	.0	,0000	1.0000	.7803	.0000	.0000	.018	.000	.000	
21.0	168.0	20.0	158.0	0	.0000	1.0000	.7803	.0000	.0000	.018	.000	,000	
22.0	148.0	18.0	139.0	1.0	.0072	,9928	.7747	.0056	.0072	.019	.006	,000	
23.0	129.0	20.0	119.0		.0000	1,0000	.7747	.0000	.0000	,019		.000	
24.0	109.0	13.0	102,5	.0	.0000	1.0000	.7747	.0000	.0000	.019	.000	,000	
25.0	96.0	15.0	88.5	.0	.0000	1.0000	,7747	.0000	.0000	.019	.000	.000	
26.0	81.0				.0000	1.0000	,7747	.0000	,0000	.019	.000	.000	
27.0	70,0				.0000	1.0000	.7747	.0000	.0000	.019	.000	.000	
28.0	54.0		•			1,0000	,7747	.0000	.0000	.019	.000	.000	
29.0	44.0	9.0	39.5	.0	:0000	1.0000	.7747	.0000	.0000	.019	.000	.000	
30.0	35.0	11.0	29.5	0	.0000	1.0000	.7747	.0000	.0000		.000	.000	
							,7747	,0000	.0000	.019	.000	.000	
31.0	24.0						.7747	.0000	.0000		.000	.000	
32.0						,	.7747		.0000		.000	.000	
34.0							.7747		.0000		.000	.000	
35.0							.7747		.0000		.000	.000	
36.0							.7747		.0000		.000	.000	
37.0					-		.7747				.000	.000	
38.0				•					.0000		.000	.000	
39.0												.000	
40.0										.019			
											•		

.. THESE CALCULATIONS FOR THE LAST INTERVAL ARE REAHINGLESS.

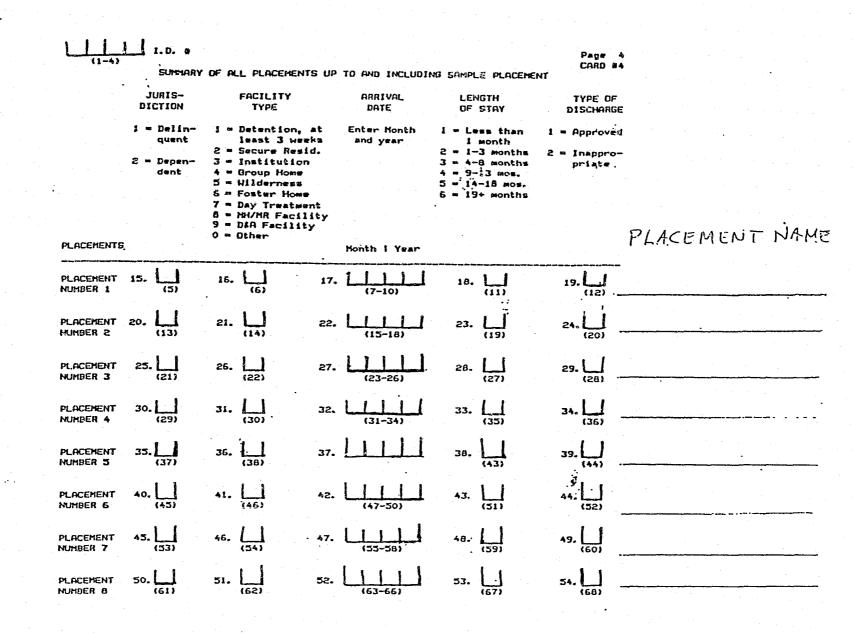
THE MEDIAN BURVIVAL TINE FOR THESE DATA IS 40.00+





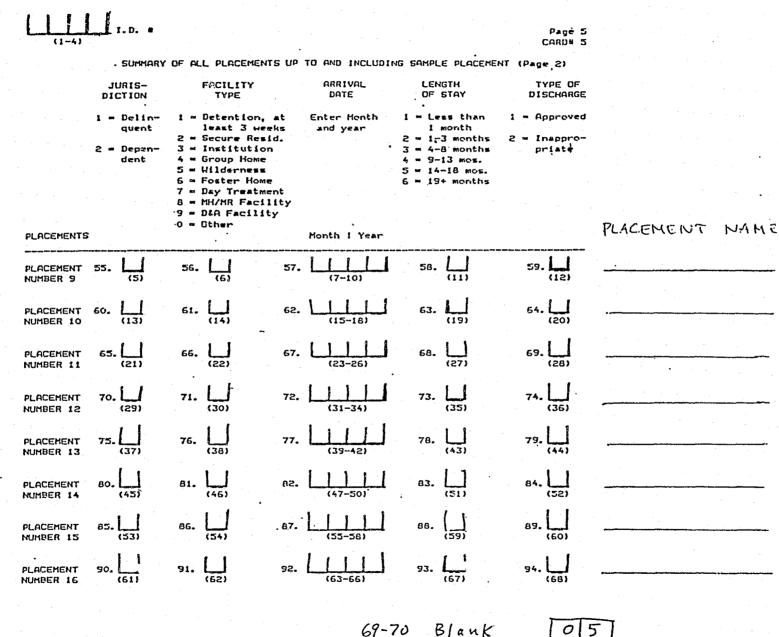
. ID Ø (1-4)		OFFENSE SUMMAI Referral #	RY	Tage 2 Card 0 2	· · · · · · · · · · · · · · · · · · ·
OFFENSES (check all that apply &	1	2	3	4	5
indicate # of counts)	AL/CT SUB/CT	AL/CT SUB/CT	AL/CT SUB/CT	AL/CT SUB/CT	AL/CT SUB/CI
01. Theft					
02. Th. Unlawful Taking					
03. Rec. Stol. Prop.					
04. Unauti., Use Vch.					
05. Burglary					
06. Robbery		ШШ			
07. Simple Assault					
08. Agg. Assault					
09. Terr. Threats					
10. Crim. Trespass					
11. Crim, Conspiracy					
12. Drugs-mj/hash/1.a.					
13. Drugs-other					
14. Prob. Viol.					
15. Escape					
16. Fail re to adj.					
Other:				,	
AL/CT SUB/CT					
AL/CT SUB/CT		$\vdash \vdash \vdash \vdash \vdash \vdash$			
AL/CT SUB/CT					
AL/CT SUB/CT					
7. Date MHDDYY	(5-10)	(11-16)	(17-22)	(23-28)	(29-34)
8. Disposition	(35-36)	(37-38	(39-40)	(41-42)	(43-44)
9, Codefendant 1-N 2-Y	 (45)	<u> </u> (46)	(47)	└ (48)	(49)
10. 1-I fore Sample P 2-S ple Placemen 3-During Sample P 4-After Sample P.	c (50)	(51)	[] (52) 55-70 Blank	(53) (53) (71-72)	(54)

ID 0 (1-4)		OFFENSE SUMMAF Referral #	ι¥.	Card Ø 3	
OFFENSES	.6	7	8	9	10
(check all that apply & indicate Ø of counts)	AL/CT SUB/CT	AL/CT SUB/CT	AL/CT SUB/CT	AL/CT SUB/CT	AL/CT SUB/CI
01. Theft					
02. Th. Unlawful Taking					
03. Rec. Stol. Prop.					
04. Unauth. Use Veh.					
05. Burglary					
06. Robbery					
07. Simple Assault					
08. Agg. Assault					
09. Terr. Threats					
10. Crim. Trespass					
11. Crim. Conspiracy					
12. Drugs-mj/hash/l.a.					
13. Drugs-other					
14. Prob. Viol.					
15. Escape					
16. Failure to adj.					
Other:		· · ·			· · · · · · · · · · · · · · · · · · ·
AL/CT SUB/CT					
AL/CT Sub/CT					
AL/CT Sub/CT					
AL/CT SUB/CT		H	H++++ H	H++++ H	
//. Date MMDDYY	(5-10)	(11-16)	(17-22)	(23-28)	(29-34)
12, Disposition	(35-36)	(37-38			
/3, Codefendant 1-N 2-Y	(35-30) (45)	(46)	(39-40) (47)	(41-42) (48)	(43-44) (49)
14, 1-Before Sample P. 2-Sample Placement 3-During Sample P. 4-After Sample P.	└_J (50)	[] (51)	[_] (52) 55-70 Blank	· [] (53)	(54)



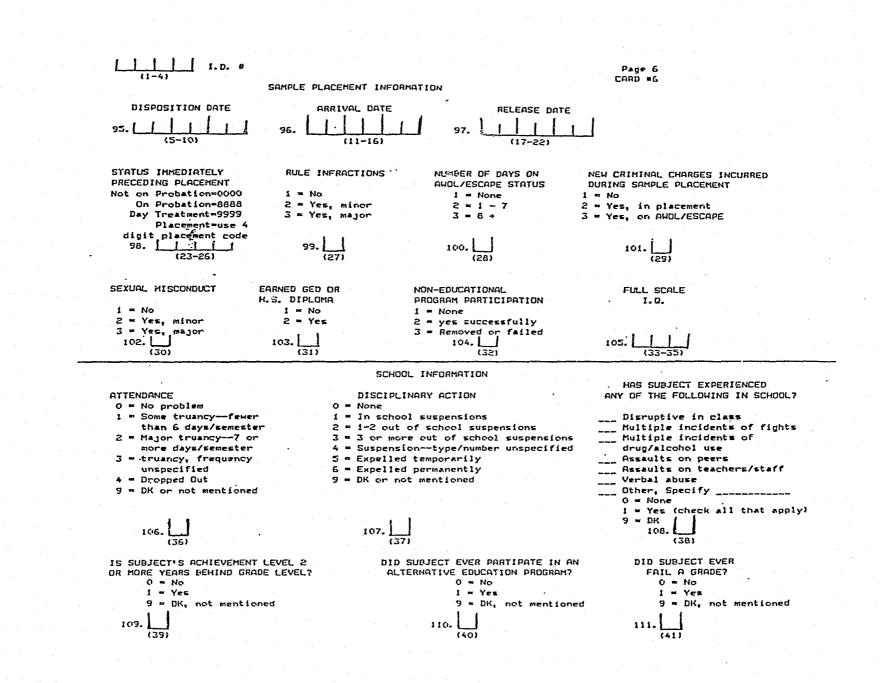
69-70 Blenk

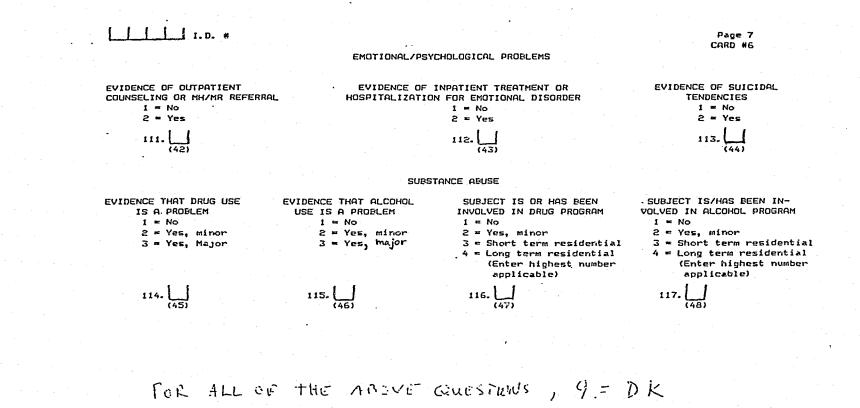
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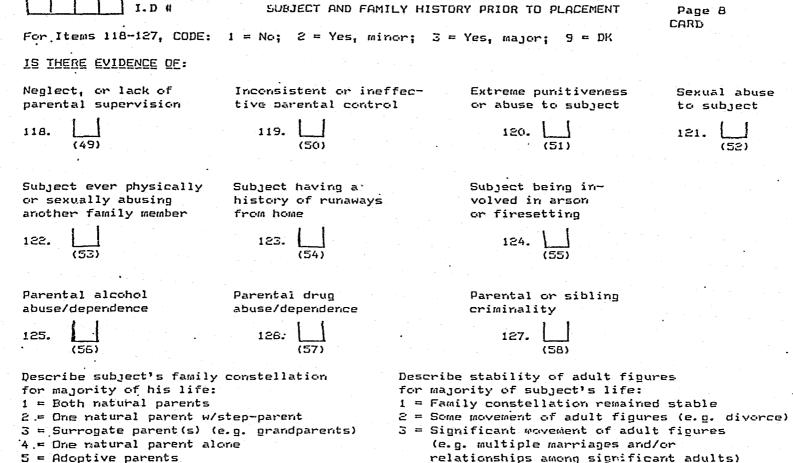


69-70 Blank

0 L71-72







128. (59) relationships among significant adults)

