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PROBLEMS OF STATISTICAL RESEARCH: RECIDIVISM AND ITS CORRELATES

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In this article the author reports upon one of several research projects carried out at Berkshire Farm for Boys. The principal concern of the report is the correlation between recidivism and a number of factors generally regarded as associated therewith. A second concern is the manner in which institutions can assist in the study of criminal behavior and its causes by maintaining records useable in research. Dr. Laulicht presents his findings with respect to certain correlates of recidivism, giving particular attention to several findings relating to family background which raise interesting questions regarding the validity of current notions as to the effect upon juvenile behavior of family make-up and instability. He also examines the effects of the child-care program which obtained at Berkshire until 1954 with those of the treatment program initiated in that year.—EDITOR.

The main purpose of this paper is to report variables found to be significantly associated with recidivism rates for boys released from one training school—Berkshire Farm for Boys. Berkshire has developed an extensive treatment program in recent years,¹ and some findings on the rehabilitation effects of this program can be reported. A secondary purpose is to point up some of the inadequacies for research purposes of records kept by institutions.

Like other institutions, social welfare agencies, and psychiatric clinics, Berkshire develops and maintains copious files on its clients. Although, in general, record studies have fallen short of expectations, it is still widely believed that if such records could be tapped in some systematic fashion, knowledge of human behavior would be advanced. With guarded optimism, it was decided that the first study at Berkshire would use the information

available in the institution's files. The objectives of this effort were to obtain descriptive information about the characteristics of boys committed to Berkshire and to determine the relationship of these characteristics to recidivism.²

A number of studies attempting to find factors predicting parole success provide information about the correlates of recidivism. Most of these have been studies of adults, and it is not known to what extent the findings are applicable to juveniles.³ However, there have been several studies of the characteristics of juvenile recidivists. Kirkpatrick, comparing boys who appeared before a Juvenile Court a second time with those who did not, found that Negroes, only children, and boys with school behavior problems were more likely to

² The available data (see the list of items in Table I) also enables us to determine whether or not boys assigned to certain of the five cottages in the institution tend to be different from boys in the other cottages, to compare the characteristics of boys who have committed different types of offenses, and to compare the characteristics of Negro and white delinquents. This paper, then, is the first of a series of reports on a larger study.

³ Studies of adult recidivism have been reviewed in MANNHEIM & WILKINS, *PREDICTION METHODS IN RELATION TO BORSTAL TRAINING* ch. 1 (London 1955). Studies of recidivism among discharged delinquents have been reviewed in Litwack, *Construction and Validation of an Instrument for the Prediction of Recidivism Among Juveniles in Massachusetts*, chs. 1 & 2, Boston University, School of Education, unpublished Ed.D. thesis, 1959; and Laulicht, *A Study of Recidivism in One Training School: Implications for Rehabilitation Programs*, 8 *CRIME & DELINQUENCY* 161 (1962).

¹ Berkshire is a privately sponsored training school which has been in existence for 75 years. Until 1954 it provided a child-care program, but since then it has been extensively reorganized so as to offer a treatment program to all its clients. It has a capacity of 145 boys and somewhat over 100 staff members. Included on the staff are eight psychiatric social workers, a psychiatrist, a psychologist, and a minister with clinical training. Both its director and assistant director have had clinical training and experience. All boys receive individual therapy, group therapy, or both. Berkshire, then, has predicated its program on psychotherapeutic concepts and assumptions and attempts to provide a therapeutic milieu for its clients. Readers interested in a more detailed description of the institution's present program can write to the Executive Director, Berkshire Farm for Boys, Canaan, New York.

be repeaters than boys not in these categories. Boys who had originally appeared before the court for burglary, incorrigibility, running away, and truancy were also more likely to reappear in court than boys who originally appeared for other offenses.⁴ Arbuckle and Litwack, studying institutionalized delinquents, reported that the taller a boy, the older his mother, the more education he had, the older he was at the time of his first court appearance, commitment, and discharge, the more likely he was to succeed on parole.⁵

Mannheim and Wilkins, in an extensive study of the recidivism rates of 717 youths committed to Borstal schools in England, found that boys who started their criminal careers at an early age, engaged in truancy, stayed in the training school for a relatively long period, or ran away during their period of commitment were more likely to be repeaters than those in the contrasting groups. On the other hand, these authors found no difference in recidivism rates between boys from broken homes and those from intact homes, or between those coming from families with a criminal record and those coming from law-abiding families.⁶ Black and Glick found that success after discharge from a treatment-oriented training school was associated with a low level of truancy before commitment, not having committed delinquent acts before the age of nine, and having a father who exercised "sound or fair discipline."⁷

In summary, then, only children, Negroes, younger and less educated boys, those who started their criminal careers early in life and were involved in truancy, running away or stealing, and those who were kept in training schools for lengthy periods were more likely to be repeaters than were their opposite numbers. In this study, all of these factors and a number of others were tested for their relationship to recidivism.

SUBJECTS AND PROCEDURE

The potential subjects for this study were all 804 boys discharged from Berkshire Farm during

⁴ Kirkpatrick, *Some Significant Features in Juvenile Recidivism*, 7 AM. J. ORTHOPSYCHIATRY 349 (1937).

⁵ Arbuckle & Litwack, *A Study of Recidivism Among Juvenile Delinquents*, 24 Fed. Prob. 45 (Dec. 1960). In a more comprehensive report, a number of other factors were found to be associated with recidivism. See Litwack, *op. cit. supra* note 3.

⁶ MANNHEIM & WILKINS, *op. cit. supra* note 3, at ch. 5.

⁷ BLACK & GLICK, *RECIDIVISM AT THE HAWTHORNE-CEDAR KNOLLS SCHOOL* (Research Monograph #2, Jewish Board of Guardians, New York 1952).

a nine-year period, January 1, 1950, through December 31, 1958. Since a considerable loss of subjects was anticipated, this group was large enough to insure a sufficient number of subjects for determining a recidivism rate and the correlates of failure.

For each boy, a systematic effort was made to learn whether at any time after discharge he was re-institutionalized in a correctional facility for delinquents or adult offenders. We were able to obtain information on 95% of the boys. The information was considered adequate if the boy's status was known at least two-and-a-half years after discharge or as of the cut-off date for the follow-up, July 1, 1959, whichever came first. Boys were used as subjects, however, only if their careers could be followed for at least one year after discharge.⁸ For these reasons, and because one-eighth of the boys were at Berkshire only a short time before being transferred to another institution, the analyses to be reported are based on a maximum of 579 subjects.⁹

A boy was considered a failure or recidivist if, subsequent to his residence at Berkshire, he was apprehended for a criminal act or violation of parole *and* as a result was committed to any state institution or to a community or county jail for at least 30 days. Although it may be argued that other definitions of recidivism, such as a reappearance in court, are better or more inclusive, it proved impossible to get such information on most of the subjects.

The age range of the 579 boys was 11-17 (median = 14.2) at commitment and 12-18 at discharge (median = 15.7). Their known delinquencies covered the gamut of law violations—

⁸ A two-and-a-half year period is considered adequate for follow-up purposes, since an analysis of recidivism rates indicated that 74% of all discharges from Berkshire who ever became recidivists did so within that time. About one-ninth of the subjects were used in the analyses, even though the follow-up period was shorter, because they had been exposed to the new treatment program. Of this group, some would have been reclassified as failures with a longer follow-up. When all subjects were classified as successes or failures on the basis of only a one-year follow-up, the same variables were significantly associated with recidivism, with one important exception to be discussed below.

⁹ A more detailed description of the procedures and findings of the effort to determine the recidivism rate for Berkshire discharges is reported in Laulicht, *supra* note 3. The usual difficulties in follow-up studies were encountered. It was impossible to follow the careers of most of the boys who moved from the state to which they were discharged or entered the Armed Forces.

theft, forgery, assault and battery, damaging property, truancy, running away, incorrigibility, extortion, sex delinquencies. Even though the institution makes an effort to screen out boys with records of arson, the files revealed that over 6% of the subjects had committed this offense. As for religion, 28% were Catholic, and 64% Protestant, while the affiliation of most of the others was unknown. Negroes made up about 17% of the group. About 54% of the boys came to Berkshire from cities with a population over 100,000, and the great majority of boys came from families in the lower socio-economic class, as assessed by the occupation of the head of the household. At least 55% had experienced broken homes, and the biological parents of another 14% never married each other.

Since the subjects had been discharged and were no longer accessible, the only available information was in the case files, which contain everything recorded before, during, or after the boys' residence. Included are such items as the referring agency's report, consisting of a social history, interpretation of psychological tests, and possibly a psychiatric evaluation; correspondence with referring agencies concerning placement after discharge; medical records; summaries of therapeutic contacts with the boy; and some information on his behavior and school work while in residence.

The data were drawn from records kept for administrative and clinical rather than for research purposes. This posed problems of objectivity, adequacy, validity, and interpretation of the data which led to the elimination of potential items of information. It also imposed limitations on the scope of the study, since on many potentially important items there was no useful or relevant information in the files. In brief, almost all the useable data were contained in the information supplied by the referring agencies. Only a small portion of the comments recorded by the institution's staff during a boy's residence was useful.¹⁰

¹⁰ Hardly any of these comments was recorded consistently enough to be amenable to coding and statistical analysis. For example, a caseworker's treatment notes should provide a wealth of information about changes in the boy, about his attitudes and behaviors, etc. There is, however, considerable variation among caseworkers as to the points they cover and in the adequacy of their records, and there is no way of estimating the validity of most of their statements. This is not a criticism of Berkshire's caseworkers, because the problem of what to record is not peculiar to this agency. Since caseworkers were not recording their interviews for research purposes, it was no surprise to find that the desired information was unavailable.

No systematic set of hypotheses was used to choose items for this study. Rather, the procedure was to describe the population, search among the descriptive variables for correlates of recidivism, and test some previous findings and hunches about possible correlates. The only items tested were those on which systematic and objective information was available in the files; i.e., where the necessary information was found in the great majority of files and its validity was not questionable. In general, what we have are items about a boy's prior delinquent behaviors, family background and school history, indices of his exposure to the Berkshire Farm program, and demographic characteristics of the boy and his family. (See Table I for a listing of all items examined for their relationship to recidivism.)

All items were precoded so as to simplify the process of abstracting information and preparing the data for analysis. Four persons were trained to search the files and were provided with standard definitions for coding each item so as to make the data comparable. Checking procedures and continuous supervision were used to insure that the various coders performed their task in the same way. Throughout the data-gathering period, records were randomly chosen to be read and coded by a second person. The results were compared, and instructions were elaborated where necessary. If it was discovered that a particular item was not being coded properly, all records previously compiled were checked for accuracy. There was every indication that the coding was done reliably and consistently. Several items initially included were later eliminated because it proved impossible to code them reliably and consistently.

To determine the relationship between each item and recidivism, Chi-Square tests of independence were calculated, using Yates' correction for 2×2 tables to reduce the possibility of obtaining spuriously significant results. Since this study was exploratory, the 5% level of significance was used to test the statistical hypothesis of no difference between recidivists and non-recidivists. Needless to say, the items to be discussed are not necessarily causes of recidivism.

RESULTS

Of 84 items examined, 17 were significantly associated with recidivism at the 5% level or better. (See items starred in Table I.) It will be seen that some of the items overlap one another,

TABLE I

ITEMS EXAMINED FOR RELATIONSHIP TO RECIDIVISM
(Asterisked items are significantly related to
recidivism at 5% level or better.)

PRIOR DELINQUENCY RECORD

- *1. Did boy have prior delinquency record?
- 2. Institutionalized previously for delinquency?
- 3. Committed delinquency for which referred with companions?
- 4. Ever on probation?
- 5. Age at time of first known delinquency.

KNOWN DELINQUENCIES

- 6. Stealing from relatives.
- *7. Breaking and entering.
- *8. Stealing from non-relatives.
- 9. Car theft.
- *10. Did boy ever steal? (Includes above four categories of offenses)
- 11. School behavior problem, including truancy.
- *12. Running away from home.
- 13. Assault and battery.
- 14. Extortion or threat of violence.
- 15. Damaging property.
- 16. Assaulting people, threatening or damaging property.
- 17. Sexual delinquency.
- 18. Arson.
- 19. Associating with undesirable companions.

FAMILY CRIMINAL BACKGROUND AND OTHER SOCIAL PROBLEMS

- 20. Does mother have criminal record?
- 21. Does father have criminal record?
- 22. Do any siblings have criminal record?
- 23. Does any family member have criminal record?
- 24. Did mother drink excessively?
- 25. Did father drink excessively?
- 26. Was mother frequently or chronically ill?
- 27. Was father frequently or chronically ill?
- 28. Was mother ever in a mental hospital?
- 29. Was father ever in a mental hospital?
- 30. Was family on welfare at time boy committed?

FAMILY CONSTELLATION AND FAMILY STABILITY

- 31. At referral, was boy living with a man and woman, only a woman, only a man or neither.
- *32. At referral was boy living with biological father, adoptive or foster father, another male relative or no father figure?
- *33. At referral was boy living with biological mother, adoptive or foster mother, another female relative or no mother figure?
- *34. Number of placements with non-relatives.
- 35. How many different living situations with at least one relative?
- 36. Number of different living situations with relatives or non-relatives.
- 37. Boy born out of wedlock?
- 38. Biological family permanently broken?
- 39. Was break due to death, divorce, or desertion?
- 40. Boy's age at time of break.
- 41. Did parent with whom boy remained establish new family unit?
- 42. Did parents separate frequently or for prolonged periods?
- 43. Number of marital liaisons, legal or common-law, of father.

TABLE I—Continued

- 45. Did boy live with biological mother at least half his life?
- 46. Did boy live with biological father at least half his life?
- 47. Number of persons in boy's home at time of commitment.
- 48. Number of siblings in biological family.
- 49. Rank among siblings.
- 50. Any family members previously known to social agency?

FAMILY SOCIO-ECONOMIC STATUS

- 51. Was father unemployed at time of referral?
- 52. Socio-economic status of father's occupation.
- 53. Was mother working at time boy committed?
- 54. Socio-economic status of mother's occupation.

RELIGION

- 55. Boy's religion, Protestant or Catholic.
- *56. Mother's religious affiliation.
- 57. Father's religious affiliation.
- 58. Frequency of boy's religious participation.

SCHOOL

- 59. Last grade completed.
- 60. Ever suspended or expelled from school?
- 61. Frequency of truancy.
- 62. Conduct record at school.

PROGRAM EXPOSURE

- *63. Was boy in a child-care or treatment program?
- *64. Year admitted.
- *65. Year discharged.
- *66. Length of stay.
- *67. Type of discharge.
- *68. Cottage placement for at least 75% of residence.
- 69. Cottage placement during entire residence.
- 70. Number of different cottage placements.
- 71. Proportion of residence spent in one cottage.

OTHER CHARACTERISTICS OF BOYS

- 72. Age at admission.
- *73. Age at discharge.
- 74. Race.
- *75. Intelligence quotient.
- 76. Has a permanent physical handicap?
- 77. Any chronic or major illnesses?
- 78. Any psychosomatic complaints?
- 79. Record of sexual problems?
- 80. Ever participated in organized recreational activities?

MISCELLANEOUS

- 81. Size of town from which boy committed.
- 82. Type of agency which referred boy.
- 83. Adjudication.
- 84. Who brought complaint leading to commitment?

so they are not 17 distinctly different correlates of recidivism.

Prior Delinquency Record

It was no surprise to find that boys with a prior delinquency record were more likely to fail than

TABLE II
PRIOR OFFICIAL DELINQUENCY RECORD
AND RECIDIVISM

	Success		Failure	
	N	%	N	%
Prior Delinquency				
Yes.....	230	62.7	136	72.3
No.....	137	37.3	52	27.7
Total.....	367	100.0	188	100.0

$\chi^2 = 5.98; P < .02$

† In this table and many of the following ones, the total N is often less than 579 because it was not always possible to classify all subjects on the independent variables.

those without such records. Table II shows that 72% of the failures as against 63% of the successes had such records. A similar relationship, just missing significance, between failure and prior probation showed former probationers to be poorer discharge risks. However, in contrast to some other studies, prior institutionalization for delinquency and age of first offense were not related to recidivism. These contradictory findings cannot be easily explained, and they point up a weakness of studies like this. To determine a more precise relationship between recidivism and prior delinquency, it would be necessary to have a larger N to allow for the control of other relevant variables.

Known Delinquencies

One question concerned the relationships between kinds of offenses and recidivism. Each boy was classified according to whether or not he had committed each of a variety of delinquent acts before being sent to Berkshire. (See Table I, items 6-19.) Four-fifths of the subjects had been involved in at least one theft, but more recidivists (86%) than successful boys (76%) had stolen. (See Table III-A.) A distinction was made among various kinds of theft offenses; each act was classified as either stealing from relatives, car theft, stealing from non-relatives, or breaking and entering. The results showed that the boys who stole from non-relatives and who broke and entered were the significantly poor risks. (See Tables III-B and III-C.)

One other type of offense, running away from home, was related to failure. Almost half the subjects (47%) had been runaways, but a greater

TABLE III
KNOWN OFFENSES AND RECIDIVISM

	Success		Failure	
	N	%	N	%
A. Stealing, all types				
Yes.....	290	75.9	170	86.2
No.....	92	24.1	27	13.8
Total.....	382	100.0	197	100.0
$\chi^2 = 7.96; P < .005$				
B. Stealing from non-relatives				
Yes.....	223	58.4	141	71.5
No.....	159	41.6	56	28.5
Total.....	382	100.0	197	100.0
$\chi^2 = 9.19; P < .005$				
C. Breaking and Entering				
Yes.....	111	29.1	81	41.1
No.....	271	70.9	116	58.9
Total.....	382	100.0	197	100.0
$\chi^2 = 8.02; P < .005$				
D. Running Away				
Yes.....	168	44	105	53.2
No.....	214	56	92	46.8
Total.....	382	100	197	100.0
$\chi^2 = 4.15; P < .05$				

proportion of the failures had committed this delinquency. (Table III-D.) This association of runaway behavior with recidivism may reflect the results of discharging boys to home situations they define as intolerable. Also, it may be that boys who run away from home have serious emotional disturbances which are relatively impervious to treatment.

Family Background

Boys who came from families with a history of criminal behavior were expected to have a tendency to become habitual delinquents and to be more likely to fail after discharge than boys without such a family background. The association between failure and criminal background of the mother, of the father, and of siblings was tested. None of these variables was related to recidivism. This finding raises questions about the hypothesis that family

background is a major cause of earlier delinquencies. Possibly, the effects of the rehabilitation program are reflected in these non-significant results.

Another set of items dealt with family make-up, and a few of these were associated with recidivism. The persons with whom a boy was living at the time of commitment made a difference in terms of recidivism rates. Rather surprisingly, at least from a common sense viewpoint, boys who lived with their biological fathers and/or mothers before commitment proved to have a higher failure rate than would be expected by chance. Table IV-A shows that 48% of the failures were living with their biological fathers as compared to 39% of the successes; the comparable figures for the presence of biological mothers were 63% against 58%. (See Table IV-B.) In contrast, success was associated with living with an adoptive or foster parent. Approximately 14% of the successes as compared to 6% of the failures were in such homes. Possibly the most surprising finding was that it made no difference, in terms of recidivism, whether the boy was living with any father figure. Current notions about delinquency lead one to expect that boys who have no available father figure are relatively more likely to get into trouble, because they are subject to relatively less parental control. In contrast, living with one's biological parents should be associated with success, not failure. These findings cannot be interpreted on the basis of available data, but at least they should lead to caution in making generalizations about the relationship between family composition and recidivism.¹¹

Some of the items can be viewed as indices of the degree of family instability which a boy has experienced. Exposure to instability was expected to be positively related to failure. Data were obtained on the number of broken families, the reasons for the break, and the boy's age at the time. In addition, information was gathered on the total number of different family placements of each boy, his number of placements with at least one relative, and his number of placements with non-relatives. As to these six items, the only significant association with recidivism occurred with the number of family placements with non-relatives; this association, however, is rather

¹¹ It is not known whether the boys returned to the same parental figures as they left, although it seems reasonable to assume that most of them did.

TABLE IV
FAMILY BACKGROUND AND RECIDIVISM

	Success		Failure	
	N	%	N	%
A. At Referral, Boy Was Living With Man Who Is His:				
Biological Father.....	143	38.7	92	48.2
Other Relative or Step-Father.....	57	15.5	25	13.1
Adoptive or Foster Father.....	49	13.3	12	6.2
Not Living with Father Figure.....	120	32.5	62	32.5
Total.....	369	100.0	191	100.0
$\chi^2 = 8.77; P < .05$			560	
B. At Referral, Boy Was Living With Woman Who Is His:				
Biological Mother.....	220	58	123	63.1
Other Relative or Step-Mother.....	61	16.1	31	15.9
Adoptive or Foster Mother.....	53	14	11	5.6
Not Living with Mother Figure.....	45	11.9	30	15.4
Total.....	379	100.0	195	100.0
$\chi^2 = 9.74; P < .025$			574	
C. Number of Placements with Non-Relatives				
None.....	197	53.8	112	59.6
1.....	85	23.2	27	14.4
2.....	32	8.8	11	5.9
3-4.....	24	6.6	24	12.7
5-9.....	28	7.6	14	7.4
Total.....	366	100.0	188	100.0
$\chi^2 = 12.37; P < .02$			554	

complex. (See Table IV-C.) Instead of finding that the more often boys were shunted around from place to place, the more likely they were to fail, we found the reverse. Boys who *never* lived with non-relatives had a slight tendency to fail, while boys who were shifted around a great deal (5-9 placements) showed no tendency to either succeed or fail. Boys who had one or two placements with non-relatives tended to succeed, 32% against 20%,

TABLE V
MOTHER'S RELIGION AND RECIDIVISM

	Success		Failure		
	N	%	N	%	
Protestant.....	192	74.7	87	64.4	
Catholic.....	65	25.3	48	35.6	
Total.....	257	100.0	135	100.0	392

$$\chi^2 = 4.07; P < .05$$

while those who had three or four such placements tended to fail.

Instability *per se* is not significant; if it were, other items in this group would have been related to failure. Rather, both type and amount of instability have to be examined, since the isolated fact of a broken home is not sufficient to produce chronic criminal behavior. What may be crucial is what happens to a boy after his home has been broken. It can be hypothesized, on the basis of the data, that extreme instability is *not* associated with failure, moderate instability is associated with failure, and a little instability is associated with success. Possibly what happens is that boys exposed to very little or to a great deal of instability learn how to cope with change and how to handle feelings of rejection and deprivation, while those exposed to moderate instability continue to have strong feelings of rejection to which they react. These findings again emphasize the need to resist jumping to conclusions about the relationship between family background characteristics and the potential for successful rehabilitation.

One characteristic of the boys' mothers is of some interest. Religious affiliation of the mothers, but not of the fathers, was related to success or failure. Boys with Protestant mothers showed a tendency to succeed, while boys with Catholic mothers showed a tendency to fail. (See Table V.) Most likely, religious affiliation itself has little if any effect; the significant Chi-Square is probably a result of the somewhat lower socio-economic status and urban residence of the Catholic boys.

Age of Boys

In common with the findings of other studies,¹² our findings showed a relationship between age

¹² See, e.g., Arbuckle and Litwack, *supra* note 5, at 46.

TABLE VI
AGE AT DISCHARGE, IQ AND RECIDIVISM

	Success		Failure		
	N	%	N	%	
A. Age					
12-14.....	35	9.1	42	21.3	
15.....	87	22.8	67	34	
16.....	167	43.7	56	28.4	
17-18.....	93	24.4	32	16.3	
Total.....	382	100.0	197	100.0	579
	$\chi^2 = 31.85; P < .001$				
B. IQ					
60-89.....	57	16.6	50	27.3	
90-109.....	231	67.3	106	57.9	
110 or higher.....	55	16.1	27	14.8	
Total.....	343	100.0	183	100.0	526
	$\chi^2 = 8.51; P < .02$				

and recidivism. The failures tended to be younger than the successes at the time of both commitment and discharge. (See Table VI-A; the figures showing the relationship between failure and age at commitment are not given, because the Chi-Square just missed significance at the 5% level of confidence.) A possible reason for the relationship is that boys who were discharged before age 16 had to return to school, often the very place where they were getting into trouble. Older boys could seek and obtain jobs or look forward to enlisting in the Armed Forces—possible reasons for keeping out of trouble. Another explanation may be that older boys are more amenable and responsive to the verbal psychotherapeutic methods used at Berkshire.

Intelligence of Boys

Another attribute related to failure was intelligence as measured by IQ tests. Boys of below average intelligence showed a tendency to fail, while those of average intelligence tended to succeed. (See Table VI-B.) Having an above-average IQ did not appear to insulate boys against recidivism. Probably those with low intelligence were suggestible and tended to "go along" with their delinquent peers. Boys with superior intelligence may have often experienced frustration

in attempting to achieve what appeared to them to be reasonable goals.¹³

Exposure to Berkshire Program

The final group of items to be discussed deals with a boy's exposure to aspects of the institutional program. Detailed information could not be obtained about the variety of each boy's experiences and reactions during his residence at the institution, and only a few relevant indices can be reported.

Any institution dealing with delinquents must cope with the problem of deciding when each boy is ready to be returned to his community. Sometimes the decision is based on criteria other than whether he is deemed to be successfully rehabilitated. Boys may be discharged to make room for new admissions, or because they are old enough to enter the Armed Forces, or simply because they have been at the institution for a long time. On the other hand, boys may be kept at an institution because they do not have a suitable home to which to return and are too young to live alone.

Length of Stay. The available information limited the analysis to an examination of the relationship between length of stay and recidivism. Boys were classified according to whether they had been at Berkshire Farm 6 months or less, from 7 to 12 months, from 13 to 18 months, etc. (See Table VII-A.) The significant association found was primarily accounted for by the high failure of boys who were at Berkshire for 6 months or less.¹⁴ This was the only grouping which had a higher percentage of failure than successes. The other category which made a difference consisted of boys who were at Berkshire more than 30 months. They showed a decided tendency to succeed. A likely explanation of the successful adjustments of so many of the "long termers" is that they were old enough at discharge to avoid going back to school and to find jobs or enlist in the Armed Forces.

A striking fact is that on a *statistical* basis it apparently made no difference, within the range

¹³ See CLOWARD & OHLIN, *DELINQUENCY AND OPPORTUNITY* (1960), for a theoretical explanation of the relationship between lack of opportunity and delinquency.

¹⁴ The procedures used to select subjects for the analyses in this paper led to the elimination of most boys who were in residence for only a short time. If they had been included, the failure rate for short-term residents would have been considerably higher.

TABLE VII†
LENGTH OF STAY, TYPE OF DISCHARGE AND
RECIDIVISM

	Success		Failure		
	N	%	N	%	
A. Length of Stay					
6 months or less.....	26	38.2	42	61.8	
7-12 months.....	60	69.8	26	30.2	
13-18 months.....	95	69.3	42	30.7	
19-24 months.....	80	67.8	38	32.3	
25-30 months.....	52	66.7	26	33.3	
more than 30 months....	69	75	23	25	
Total.....	382	66	197	34	579
$\chi^2 = 28.19; P < .001$					
B. Type of Discharge					
Regular.....	317	76.2	99	23.8	
Discretionary.....	36	46.8	41	53.2	
Administrative.....	21	28.8	52	71.2	
Total.....	374	66.1	192	33.9	566
$\chi^2 = 77.0; P < .001$					

† Note that in this table the percentages have been computed by row rather than by column. This procedure will be followed in the remaining tables.

of 7 to 30 months, how long a boy was kept at Berkshire. This raises some important questions about the length of time delinquents should be kept in institutions. However, there was no way of determining whether a boy who succeeded after a residence of two years also would have succeeded if he had been discharged a year earlier. Intuitive judgments as to when a boy is ready for discharge must continue to be relied upon until such time as more objective guides can be developed. It is, of course, unlikely that intuition can be dispensed with entirely, since perfect objective predictions are seldom, if ever, possible in complex human situations.

Type of Discharge. In addition to deciding when to discharge a boy, Berkshire's staff decides on the type of discharge he should be given. There are three types of discharge from Berkshire Farm: (1) regular discharge (73% of the cases), given because treatment is believed to have been completed and the boy is felt to have a good chance of adjusting successfully; (2) discretionary discharge (14%), given to boys who are believed to have received the maximum benefits possible from the

program, but about whom there are serious doubts as to whether they can make a successful readjustment; and (3) administrative discharge (13%), given because of persistent misbehavior, including such actions as runaways associated with delinquencies, persistent overt physical aggression, etc.

When subjects were classified according to the type of discharge they received, there was a significant association with recidivism. A great majority of the boys given regular discharges were successful (76%). (See Table VII-B.) In contrast, boys who were given discretionary discharges showed a decided tendency to fail, while boys discharged administratively showed an even stronger predisposition toward failure.¹⁵

One sobering fact is that more than one-fourth of the boys who persistently behaved in delinquent fashion while at the institution nevertheless managed to avoid becoming recidivists after discharge. It is interesting to speculate whether these boys actually conformed or simply managed to evade detection. All in all, it is apparently quite possible to make fairly accurate predictions as to who will be successful and who will fail after discharge. What is still lacking is a more precise knowledge of the basis upon which such predictions are made so that more accurate decisions can be made as to when to discharge a boy from a training school.

Cottage Placement. Like many other institutions, Berkshire uses the cottage system. Four staff members are assigned to each residential unit, which holds a maximum of 30 boys. One hypothesis is that the impact of the total program on a boy, both in terms of changing him during his residence and the probability of his successful adjustment after discharge, is a function of his cottage assignment; i.e., the boys with whom he lives and the cottage staff members who supervise him. Although this hypothesis could not be tested, it was possible to determine the relationship between recidivism and such factors as the cottage in which a boy lived, the number of different cottages in which he resided, and the proportion of his stay spent in one cottage.

Because transfers among cottages have been quite common, only 385 of the subjects could be

¹⁵ Most boys who were given administrative discharges were at Berkshire Farm less than six months. However, the figures in Table VII-B do not include boys who were administratively discharged and sent to another institution within one month.

TABLE VIII
COTTAGE ASSIGNMENT AND RECIDIVISM

	Success		Failure		
	N	%	N	%	
For at Least 75% of Stay, Boy was Assigned to:					
Cottage 1.....	35	55.6	28	44.4	
Cottage 2.....	57	68.7	26	31.3	
Cottage 3.....	70	70.7	29	29.3	
Cottage 4.....	61	70.1	26	29.9	
Cottage 5.....	27	50.9	26	49.1	
Total.....	250	64.9	135	35.1	385

$$\chi^2 = 9.94; P < .05$$

classified as having spent at least 75% of their residence time in one cottage unit. Table VIII shows that there is a relationship between cottage assignment and recidivism rates. Most of the association is explained by the fact that boys in cottages 1 and 5 failed more often than would be expected if cottage assignment made no difference. Boys assigned to other cottages had a slight tendency to succeed. It seems likely that the poor showing of these two cottages was at least partially because younger boys were assigned to them. The other cottages have almost always had older boys. We suspect that differences in recidivism rates by cottage assignment would also be found in other institutions and believe that this would be an important topic to study. However, larger N's will be necessary to allow for the control of such relevant variables as age.

Several other items dealing with cottage assignments were *not* related to recidivism. Boys were categorized according to the number of different cottages in which they lived, with the expectation that since boys who were transferred experienced some instability they would be more likely to fail. In fact, there was no such association. Further, when boys were categorized according to the proportion of their stay spent in one cottage (less than 75%, 75-89%, 90-99%, and 100%), there was no relation with recidivism. Again, as with all but one of the items dealing with number of different family placements, there was no relationship between apparent indices of instability and failure rates. Possibly, many of the boys who were transferred from one cottage to another

learned how to cope with change and feelings of resentment and how to establish new relationships under skilled adult supervision. They were then better prepared to cope with changes and difficulties after discharge. In addition, many of the boys who were shifted may have been happy to make the change. On the other hand, many boys may be upset by and resent change, in which cases change might predispose them to failure. Thus a statistical analysis which did not separate boys according to whether they were happy or unhappy about the change produced an average which was a result of conflicting forces; i.e., a non-significant finding. It would have been desirable to return to the records to test such an interpretive hypothesis, but the lack of relevant information made this impossible.

Type of Program: Child-Care or Treatment. We turn now to a set of data which bear on the question whether an extensive treatment program for delinquents contributes to successful rehabilitation. Berkshire Farm started making drastic changes in its program late in 1954. It changed from a child-care program, primarily oriented to custody and control of boys, to a treatment-oriented facility providing a therapeutic milieu and offering individual or group therapy to all of its clients.¹⁶ Because of an interest in the effects of the changes which have occurred, relevant indices were sought on which information could be found in the records. Almost all the subjects could be categorized according to whether at least three-fourths of their stay at Berkshire was during the period of the child-care program (59% of the boys) or after the institution began developing its treatment program. This rather gross index showed a differential clearly in favor of the latter. Seventy-five percent of the boys exposed to the treatment program, as compared to 60% of those in the child-care program, were successes. (See Table IX-A.)

Several other analyses provided a somewhat clearer picture of the different effects of the child-care and treatment programs. Boys were classified according to the year of admission to the institution, and the success and failure rates for each group was determined. (See Table IX-B.) The results showed that in its last few years the child-care program was apparently having less and less

¹⁶ The changeover took several years, and a considerable amount of experimentation still goes on to try to develop a more effective treatment program.

TABLE IX
PROGRAM EXPOSURE AND RECIDIVISM

	Success		Failure	
	N	%	N	%
A. Boy's residence at B.F. was during period of:				
Child-Care Program.....	192	59.6	130	41.4
Treatment Program.....	165	75	55	25
Total.....	357	65.9	185	34.1
$\chi^2 = 13.1; P < .001$				
B. Year Admitted				
1945-1949.....	63	66.3	32	33.7
1950.....	34	64.2	19	35.8
1951.....	29	60.4	19	39.6
1952.....	27	47.4	30	52.6
1953.....	40	64.5	22	35.5
1954.....	49	64.5	27	35.5
1955.....	69	70.4	29	29.6
1956-1958.....	71	78.9	19	21.1
Total.....	382	66	197	34
$\chi^2 = 17.7; P < .02$				
C. Year Discharged				
1950.....	28	56	22	44
1951.....	35	64.8	19	35.2
1952.....	30	56.6	23	43.4
1953.....	35	59.3	24	40.7
1954.....	48	60	32	40
1955.....	43	61.4	27	38.6
1956.....	60	70.6	25	29.4
1957.....	70	78.7	19	21.3
1958.....	33	84.6	6	15.4
Total.....	382	66	197	34
$\chi^2 = 20.7; P < .01$				

success.¹⁷ Boys admitted from 1945 through 1950¹⁸ showed no tendency toward failure, even though

¹⁷ It is not being assumed that boys exposed to the two different programs are similar in all important characteristics. It may be that along with the change in program, a change occurred in the criteria used for accepting or rejecting boys referred for commitment. We have data indicating that the two groups differ in some important ways; cf., Laulicht, *Selection Policies in Training Schools as Related to Types of Rehabilitation Programmes*, to appear in the *BRITISH J. CRIMINOLOGY*.

¹⁸ The 1945-49 group includes only those boys admitted during that time span who were discharged after January 1, 1950; the great majority were admitted after 1947. Thus many of the boys admitted between 1945 and 1949 were not included in this analysis.

TABLE X
RECIDIVISM AND TYPE OF PROGRAM
WITH A ONE-YEAR FOLLOW-UP

	Success		Failure	
	N	%	N	%
Child-Care Program.....	270	83.9	52	16.1
Treatment Program.....	189	85.9	31	14.1
Total.....:.....	459	84.7	83	15.3

they were exposed to a program involving almost no formal treatment efforts. For the boys in the 1951 and especially the 1952 group, a difference was found; these boys showed a tendency toward failure. Fifty-three percent of all boys admitted in 1952 failed as compared with 36% of those admitted in prior years. For the 1953 category, the last group at Berkshire under the child-care program, again there was no noticeable tendency in either direction. The success rates became noticeably higher for boys admitted after the treatment program had been initiated. Of 188 boys who came to the institution after 1954, only one-fourth failed.¹⁹

Another analysis raised some questions about the effect of a treatment program on recidivism. It will be recalled that the length of the follow-up period was not the same for all subjects in this study. Because of the recent initiation of the treatment program and the July, 1959 cut-off date for this survey, the boys in this program did not have as much time to get into trouble as those exposed to the child-care program. It was necessary, then, to determine whether there was still a difference in failure rates for the two programs when the length of the follow-up period was held constant. When boys were classified as failures only if they became recidivists within *one* year after discharge, no difference was found. Instead, 84% of the boys in the child-care program succeeded as compared to 86% for the treatment program. (See Table X.) Similarly, no significant difference in success rates was found when boys were categorized on the basis of a two-year follow-up period. In fact, of the 62 boys who became recidivists more than

¹⁹ The subjects were also categorized according to the year in which they were discharged and a significant association was found with failure. (See Table IX-C.) The results of this analysis were in general consistent with the other data in Table IX.

two years after their discharge, 53 had been in the child-care program. It may be, then, that the difference in favor of the treatment program reported above was due to the longer follow-up possible for many of the boys in the non-treatment program. With the present data, there is no way of knowing how many of the boys exposed to the treatment program maintained their capacity to stay out of institutions long after their discharge.²⁰ However, it may be that the relatively more favorable impact of a treatment program does not hold up over the long run if boys continue to be exposed to the various pressures making for criminal behavior.

These data indicate that a case cannot be made for the thesis that the child-care program was a total failure, particularly when it is noted that three-fifths of all boys in this program did not become recidivists. Rather, the evidence indicates that a good case can be made for the hypothesis that the treatment program led to a significant increase in successful rehabilitation, at least for a few years after discharge, over that achieved by the child-care program. Certainly, the data emphasize the need for careful studies comparing the results of the various types of programs offered by institutions for delinquents.

SUMMARY AND DISCUSSION

This study has shown that only a few types of delinquent behavior occurring prior to institutionalization, stealing and running away, are significantly related to recidivism. Although an attempt was made to demonstrate a positive relationship between exposure to instability and failure, no such association was found. In general, items dealing with family background and family structure were not related to failure. When such items were significantly related to recidivism, the direction of the association was unexpected. In common with other studies, younger boys were poorer discharge risks. Such consistent findings about age raise serious questions about the advisability of institutionalizing boys under 14 unless they have very serious emotional disturbances.

Assessment of the impact on boys of aspects of their institutional experience was limited by the

²⁰ Since it is of some importance to get an indication of the answer to this question, a new enquiry has been started to get a minimum three year follow-up for all boys in this study.

sparse data available. Very short stays at Berkshire were related to failure, while very long periods of commitment were associated with success. Cottage assignment apparently makes a difference; there were significant differences in recidivism rates among the various cottages. In both these cases, the age factor probably plays an important part. Our data do not permit an unequivocal statement that a formal treatment program significantly increases the success rate. They do suggest that treatment programs are more likely than child-care programs to keep a boy out of trouble, at least for several years.²¹

Some other things deserving emphasis have been learned from this study. The value of further studies like this is doubtful unless the researcher is able to specify in advance the variables on which useable data are desired, and can convince and train those who create the records to follow the necessary rules. Free-style reporting is only partially amenable to statistical analysis, and then only with great difficulty and the continually nagging feeling that much important material is being lost. If it be objected that such reports should be analyzed by other than statistical techniques, then consider the task of reading several hundred quite lengthy case histories and providing a description of the population as well as a valid analysis of the factors associated with recidivism.

There are numerous hypotheses, hunches, and empirical clues in the literature about the correlates and causes of recidivism. There have also been some attempts to construct systematic theories of recidivism.²² Prior specification of variables would allow one to make full use of this body of knowledge and experience. It would also make possible a series of comparative studies

of institutions having populations of different composition. Such studies are necessary if our ability to make accurate predictions concerning successful readjustment and our knowledge of the causes of recidivism are to be increased.

One other matter warranting special emphasis concerns the surprising lack of useable information in the records on the wide variety of a boy's experiences and reactions while at Berkshire. It is known that all the boys went to school, but information on their grades and behavior at school is either not available or has not been retained in such form as to be useful for research purposes. It is known that while at the institution boys got into difficulties and engaged in anti-social behaviors, and that the same boys often behaved in socially acceptable ways and responded positively to attempts to help them. The recording of this behavior again has not been made in such a way as to be relevant for statistical research. We could go on in this vein but the point is clear. Training schools, including Berkshire, are primarily concerned with day-to-day rehabilitation of boys, and they have made little effort to keep the kind of detailed records which would have maximum usefulness in research studies. However, we are all trying to get some sort of answers, even tentative, to the most important questions in the field of institutional work; for example, what aspects of the program have a significant effect on the rehabilitation of boys; which approaches and techniques make no difference; which aspects are related to the criterion of school success, occupational success; etc.? In light of the extensive changes taking place in the programs of many training schools and the growing demand for research as a way of answering perennial questions in the field, Berkshire has become cognizant of the need to record and analyze such information. Serious consideration is being given to ways and means of doing so without unduly burdening the rehabilitation staff.

²¹ For a similar argument, see MANNHEIM & WILKINS, *op. cit. supra* note 3, at 214-15.

²² For an excellent example of a theoretical attempt to relate prison experience to success or failure on parole, see Skolnick, *Toward a Developmental Theory of Parole*, 25 AM. SOC. REV. 542 (1960).