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ASSESSING THE CONTRIBUTIONS OF FAMILY STRUCTURE, CLASS AND PEER GROUPS TO JUVENILE DELINQUENCY

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The present paper, which was presented at the Fifth (1965) International Criminological Congress in Montreal, Canada, points out difficulties that case history techniques and census tract analysis have left unsolved in trying to evaluate the contribution of family patterns, class position, and the influence of peer groups to the occurrence of juvenile delinquency. Neither method has been able to identify totally satisfactory control groups nor to collect information prior to the onset of delinquency. An alternative method which appears to come closer to solving these problems is the use of a cohort of school entrants for whom social history data is collected for delinquents and non-delinquents prior to the first official delinquent act. A partial application of this method to Negro school boys entering public schools prior to integration (1936-40) is presented. The authors suggest that the predictors found for Negro delinquency may be strongly influenced by residential segregation and by the uniformly high delinquency rates in areas where Negroes lived at this time. They suggest that early and late delinquency may well have different precipitating factors, with early delinquency reflecting family and personality disturbance, and delinquency beginning late reflecting frustrations associated with adolescence and minority group membership.

PROBLEMS IN RESEARCH INTO SOCIAL FACTORS IN DELINQUENCY

Looking back over the research thus far into social factors that contribute to delinquency, we find that two principal kinds of data have been analyzed: first, descriptions of the social environments of children seen in juvenile courts, clinics serving juvenile courts, and reformatories; and second, census tract data from high and low delinquency areas. The first method directly contrasts family histories of delinquents with family histories of non-delinquents, while the second method contrasts family patterns in high and low delinquency areas. If we allow ourselves to make the inference from the census tract data that differences in family patterns between high and low delinquency areas are paralleled by differences in the social and family patterns of delinquents and non-delinquents, there is much overall agreement in the results obtained by these two methods. The first, or case history, method, beginning with Healy's 1915 study of *The Individual Delinquent*,

has consistently found delinquents' families to be more predominantly lower class and more frequently disrupted than families of non-delinquents, and has found that the delinquent himself associates with other delinquents. The census tract method, beginning with Shaw, Zorbaugh, McKay and Cottrell's 1929 *Delinquency Areas* has found that high delinquency areas include predominantly low income families, few married men, and many women in the labor force, affirming that delinquency is associated with low social status and disrupted homes. While there is no direct evidence in the census data concerning the delinquent's peer group associations, by definition, high delinquency areas should provide each individual delinquent with more potential contacts with other delinquents than should low delinquency areas.

Inspired by these repeated correlations between delinquency and class, family structure, and association with other delinquents, efforts to curb delinquency through manipulating social environments have consisted of assaults on these three fac-

tors: The poor housing and low income associated with lower class status have been ameliorated through public housing and welfare funds; parents have been advised to avoid divorce for the sake of the children; and "good influences" have been provided through community recreation programs and social work to offset or interrupt the influence of the delinquents' "bad companions". But to date, the effectiveness of these techniques has not been demonstrated. Children who live in housing projects continue to be delinquent.¹ Children of unhappily married parents are at least as likely to be delinquent as children of divorced parents.² And providing predelinquents with a "good friend" in the Cambridge-Somerville project,³ or the good influence of a social case worker in the Washington, D.C., public elementary schools⁴ or in New York's "Vocational High,"⁵ did not improve their outcome as compared with the outcome of a control group of predelinquents.

Perhaps because delinquency was not prevented by manipulating the social environment, newer research has begun to question the causal importance of low social class and broken homes. There has been less criticism of the differential association theory, which proposes that children become delinquent as a result of associating with delinquents, although good evidence for it is not available. No test of the differential association theory has yet shown that the making of delinquent friends precedes the onset of delinquent behavior. Without this essential bit of evidence, it is as reasonable to say that delinquents choose each other as friends as to argue that having delinquent friends causes delinquency.⁶ The influence of the broken home on delinquency has been challenged as important only

¹ RUMNEY & SHUMAN, A STUDY OF THE SOCIAL EFFECTS OF PUBLIC HOUSING IN NEWARK, NEW JERSEY (1946).

² NYE, FAMILY RELATIONSHIPS AND DELINQUENT BEHAVIOR p. 47 (1958).

³ POWERS & WITMER, PREVENTION OF DELINQUENCY (1950).

⁴ TAIT & HODGES, DELINQUENTS, THEIR FAMILIES, AND THE COMMUNITY (1962).

⁵ MEYER, BORGATTA, & JONES, GIRLS AT VOCATIONAL HIGH (1965).

⁶ It has been argued that the fact that unofficial as well as official delinquents report that they have delinquent friends tends to support the differential association theory. (See Short, *Differential Association and Delinquency*, 4 SOCIAL PROBLEMS p. 233 (1957); and Voss, *Differential Association and Reported Delinquent Behavior*, 12 SOCIAL PROBLEMS p. 78 (1964). However, the same problem of proving the friendship with an already delinquent peer preceded the delinquent behavior exists for unofficial as for official delinquency.

as an indirect measure of family disorganization or unhappy marriage of the parents.⁷ The influence of social class on delinquency has been challenged by two kinds of research: 1) the finding that delinquent acts that do *not* lead to police action are less closely associated with class status than is official delinquency,⁸ and 2) the finding that in some cities indicators of social class (occupation, rent, education) typical of high delinquency areas do not remain related to delinquency rates when other census measures such as percent non-white and foreign-born and number of working women, number of children under five, and number of multiple-dwelling units are held constant.⁹

While newer research has questioned the causal connection between social variables and delinquency, it has not yet solved some of the methodological problems that make the two methods so far used unable to produce more definitive answers. The basic methodological problems in census tract research are the so-called "ecological fallacy" and the limitations of working with data for a single year. The "ecological fallacy" is a consequence of the fact that census data by tracts are not available for sub-populations identified by age, sex, or delinquency. As a result, there is no way of being sure that the description of the census tract as a whole is a valid description of the class and family distributions of the population at risk (*i.e.*, children from about 8 to 17 years of age). Nor can one tell whether the characteristics of the tract as a whole are more or less characteristic of delinquent than of non-delinquent populations within the tract.¹⁰

⁷ For a review of the studies related to this issue, see Browning, *Differential Impact of Family Disorganization on Male Adolescents*, 8 SOCIAL PROBLEMS p. 37 (1960).

⁸ NYE, *op. cit. supra* note 2 at p. 23.

⁹ The results of these analyses have been somewhat ambiguous. Indices of social class that "wash out" in one city remain statistically significant in another. See LANDER, TOWARDS AN UNDERSTANDING OF JUVENILE DELINQUENCY (1954); Bordua, *Juvenile Delinquency and "Anomie"*; An Attempt at Replication, 6 SOCIAL PROBLEMS p. 231 (1959); Bates, *Social Stratification and Juvenile Delinquency*, 21 AM. CATH. SOC. REV. p. 221 (1960). This summarization of their findings is open to question, however, since the original data from Baltimore and Detroit have been reanalyzed and compared with Indianapolis data by Ronald J. Chilton, *Continuity in Delinquency Area Research: A Comparison of Studies for Baltimore, Detroit, and Indianapolis*, 29 AM. SOC. REV. p. 71 (1964). Chilton concludes that, once recalculated, the results in Baltimore, Detroit and Indianapolis are in essential agreement. But inspection of his tables shows the only variable clearly associated with delinquency in all three cities to be percent of houses owner-occupied.

¹⁰ In St. Louis, Missouri, a city of about 800,000,

Working with data for a single year makes it impossible accurately to study the impact of tract rates of delinquency on a child's chances of becoming delinquent. To study the impact of the tract rate on delinquency, one needs to compare the rate of first delinquencies for children with more and fewer delinquents in their environments. The problem is not in ascertaining how many first offenses occur in one tract during the year. Although this has not usually been *done* in census tract research, material in juvenile police records would permit ascertaining the number of first offenders rather than the usual figure, the total number of unduplicated delinquents. But there is no way of accurately computing the *population at risk* of becoming first offenders, which should constitute the denominator in computing tract rates. The population at risk is the total child population, as ascertainable from census data, *minus* those who are already offenders. But those already offenders are made up not only of the recidivists who commit offenses in the year studied, but also of previous offenders who commit no offense in that particular year. A single year's offense records cannot identify this latter group. If it were possible to compute the annual rate of first offenders based on the population of non-offenders at the beginning of the year and to relate this rate to the number of prior offenders at large in the census tract, these data would be more appropriate for testing the differential association hypothesis than are any data presently available. They would still not be able to tell us whether children living in high delinquency areas had actually had personal contact with delinquents.

The unsolved methodological problems in the case history technique concern the selection of control groups and the necessity for assuming that

for instance, the number of youths 10-16 years of age in 1963 was estimated at 74,000 (9%), and of these youths, less than 3000 became delinquent in that year, or less than .5% of the total population, according to *Youth In Court, A Study of Delinquent Youth Referred to the St. Louis City Juvenile Court in 1963*, Health and Welfare Council of Metropolitan St. Louis and Metropolitan Youth Commission of St. Louis and St. Louis County, 1964 (mimeo.). Obviously, it is risky to assume that the description of the overall population of a census tract applies with any precision either to the .5% who were delinquent on an average, or even to the 8.5% who constitute their non-delinquent age peers. Since high delinquency areas typically contain many single adults, the juvenile population in high delinquency areas is an even smaller proportion of the total population than 9%. And in low delinquency areas, delinquents constitute even less than .5% of the total tract population.

social factors found to discriminate delinquents from control subjects existed *prior* to the occurrence of the initial delinquency, and so could reasonably be thought of as causes. One obvious way to provide a control group for the delinquents is to select a random sample of a city's population of children within the ages of risk. But such a control sample will differ from the delinquents along so many variables, all or most of which are inter-correlated, that it becomes impossible to hold all the relevant variables constant while the effect of a particular variable is studied. When none of these variables is held constant, studies can only reinforce observations already repeatedly made: that delinquents are disproportionately male, Negro, urban, from low income families, and from broken homes. Such studies can neither tell us *which* of these intercorrelated variables are independently related to delinquency nor how many such variables must be present to make delinquency probable.

The alternative, then, is to select a control sample matched with the delinquents along some variables, as the Gluecks have done.¹¹ Their problems with this method epitomize the difficulties inherent in the case history method. The sample they designed held constant age, sex, IQ, ethnic background, and social level of the area lived in, so that they could study family and personality factors in delinquency. While this technique did allow them to study family and personality factors that would have been obscured by class and nationality variables, having matched their cases on social class and ethnicity, they could no longer compare the contribution of these variables with the contribution of family and personality factors. It also became impossible to learn whether family relationships have similar effects in all ethnic groups and at all social levels. Because ordinary random sampling is an inefficient way to provide a matched sample of non-delinquents (necessitating the interviewing of many cases who are later rejected because they do not match), the Gluecks found their control subjects in the public schools, in whose records could be found data concerning the variables on which children could be matched. But by using the schools as a source, they eliminated boys no longer attending school. This introduced an unintended difference between their delinquents and their control subjects: their control subjects did

¹¹ GLUECK, S. & E., UNRAVELING JUVENILE DELINQUENCY p. 27 (1950).

not include drop-outs, while their delinquents did. As a result of the intrinsic problems that matched control groups pose, the Gluecks were unable to use class or ethnic variables or persistence in school in developing their prediction tables, thus discarding the best established correlates of delinquency. Also, of course, since they compared family relationships and personality factors in children *already* delinquent with such factors in the control group, they could not be sure the differences they found could have been found *before* the occurrence of delinquency.

The two common techniques so far used in research then have two drawbacks in common: 1) A failure to provide a control group that can be used to test simultaneously the major theories concerning social factors in delinquency, and 2) a failure to obtain information about delinquent and control groups *prior* to the onset of delinquency.

AN ALTERNATIVE METHOD: THE COHORT OF SCHOOL ENTRANTS

One method that seems to solve some of the problems in both case history and census tract techniques is the use of a cohort of school children. It is a method which provides a random sample of delinquents, so that one may investigate the full spectrum of juvenile police contact, from the child released with a warning to the reformatory inmate, or any portion of that spectrum; it provides a built-in control group, which is not only statistically appropriate but is made up of children with whom the delinquents are *known* to have had an opportunity to interact; and finally, it obtains information *prior* to the first police contact.

The method is simple: One selects all cases entering a city's first grade in the public schools for a year far enough in the past that all children will have passed the upper limit of juvenile court age. Children who left the school system for other cities or who died in childhood must then be discarded, since their risk of exposure to the police of the city is diminished by the years of their absence. But no children are discarded because of retention in a grade, transfer to special schools, or dropping out of school. Consequently, neither school success nor persistence plays a role in the child's chances of appearing in the sample. Police and juvenile court records are then checked against this roster of school children to identify the delinquents. Obviously a wide variety of categorizations of delinquency are possible here, from a simple "record-no

record" dichotomy to identification by type of disposition or by number and types of offenses.

Against the chosen measure or measures of delinquency can be tested all the variables available from school records. While family and class data in school records are obviously less complete than they are in juvenile court records or than individual interviews could provide, and less complete than the reports of family constellation, income, and housing data in census reports, a surprising amount of social class and family material is available. The presence or absence of the father can be inferred from the name of the guardian. If the first name is masculine and the last name is the same as the child's, one can assume that the child lives with his own father. In all other instances, one can assume that the father is missing.¹² The occupation of the guardian can be used as a measure of the social class status of the family. The child's place of birth and the number of addresses can furnish a measure of the family's stability. The surname provides a rough clue to ethnic identification. The address at school entry or at a specified age can be used to locate the family in a census tract, allowing the use of all the census data used in tract analysis. The social data obtained at the time of registration for the first grade, unlike data collected for juvenile delinquents appearing in court or census tract data for high and low delinquency areas, will almost always have been collected before any of the children became known to the police. There is no difficulty, then, in establishing the time sequence between family characteristics and first official delinquency or between neighborhood lived in and delinquency.

Because delinquents and non-delinquents entered the same schools at the same ages, one can treat the population of each school as a sub-population of functioning peers. And there is no question but that the child actually had an opportunity to interact with these peers. Nor can the child's association with these peers be explained entirely by mutual attraction. Children are *assigned* to schools which turn out to have high or low delinquency rates. If in "high-delinquency" schools it takes fewer predisposing personal and social factors to

¹² When this inference from school records was checked against answers obtained in adult interviews with 76 ex-school boys, it was found to be correct in 84% of cases. The error of inferring the father present when he was actually out of the home during the child's attendance in elementary school was twice as common as the error of assuming him absent when he was in fact present.

produce delinquency than it does in "low-delinquency" schools, we can at last offer substantial evidence that exposure to other delinquents increases the risk of delinquent behavior.

Despite these advantages, public school records are not without drawbacks as a source of data for the study of delinquency. In the first place, certain children are omitted, both those so mentally deficient or so ill that they cannot attend school and those who attend parochial or private schools. Since the severely retarded and severely ill are unlikely ever to commit delinquencies, their loss is probably not serious. But in cities in which private and parochial schools serve a large proportion of the student population, omitting this group does interfere with obtaining a random sample of delinquents. One then has the option of obtaining records from these additional schools or restricting one's conclusions to the public school portions of the delinquent population.

More troublesome problems are deciding how to define the effective peer group and how to calculate delinquency rates for the peer group. The simplest way to define the peer group is to take as one group all children entering the first grade of the same school in the same year. But should children who enter the school system from other cities or from parochial schools in, say, the fifth or sixth grade be added to this group? Again, what should be the peer group for children who change classmates by changing schools or receiving extra promotions or being retained in a grade? And how should one handle the fact that the delinquency rate in the peer group increases with the increasing age of its members? A member of the peer group who becomes delinquent at, say, age 12 has been a non-delinquent peer for those children who became delinquent *before* he did, but a delinquent peer of those who became delinquent *after* he did. And then one wonders whether the time of the first recorded offense is the most relevant time to measure the proportion of delinquents in the peer group—or would the time of the first truancy or the first undetected theft be more pertinent?

A final, but more simply solvable, problem is that rates of official delinquency are generally so low that comparing delinquents with non-delinquents among all school children entering in a single year will necessitate the analysis of many more non-delinquent school records than would be necessary for statistical purposes. It is possible to restrict the population studied, however, so that

the numbers of cases of delinquents and non-delinquents are more nearly equal without producing any serious biases in the results. One may, for example, study only children entering schools in high delinquency areas. Monahan¹³ found that 40% of all Negro boys in Philadelphia eventually came to the juvenile court. Studying school cohorts in primarily Negro neighborhoods, then, promises obtaining nearly equal proportions of delinquents and non-delinquents. Restricting the population does, however, mean that findings apply only to the portion of the population actually investigated.

AN APPLICATION OF PARTS OF THE SUGGESTED METHOD

As part of a study of childhood variables associated with the criminality and occupational mobility of Negro men, it has been possible to explore the use of certain parts of this method. The available data allow the study of the emergence of juvenile offenses in a cohort of 296 Negro boys selected at the time of their entry into public school as related to social variables recorded in their school records and to their school performance. It will *not* be possible to treat children from a given school as a set of peers, because, to meet the requirements of the larger study, only boys fulfilling certain criteria with respect to intelligence test scores, place of birth, length of school attendance, and completeness of records were accepted,¹⁴ and children entering school over a five-year period

¹³ Monahan, *On the Incidence of Delinquency*, 39 SOCIAL FORCES p. 66 (1960).

¹⁴ The criteria used were Negro males with IQ of 85 or more, born in the St. Louis metropolitan area between 1930 and 1934, attending public schools at least 6 years, without thereafter transferring to a different elementary school system, and guardian's name and occupation recorded. Half were to have guardian's occupations with a Duncan Socioeconomic Index score of 11 or higher; half were to have a father in the home, and half were to have significant school problems. School problems were defined as:

Moderate or serious retardation:

- 1) placed in ungraded room; or
- 2) no graduation from elementary school and repeated at least one quarter in Grade 3 or later; or
- 3) graduated from elementary school, but repeated at least three quarters, at least one of which was in Grade 3 or later.

Moderate or serious truancy or behavior problem:

- 1) absent at least 11 days (out of 50) in three or more quarters, one or more of which was in Grade 3 or later; or
- 2) notation of truancy; or
- 3) expulsion or transfer to a correctional institution.

were included. Therefore, the children from a given school comprise selected parts of classes entering over a five-year period, rather than a single first grade cohort. As can be seen in Table 1, these criteria selected the upper half of the IQ range, and within that IQ range, overrepresented high status children. There were no striking differences between the sample and the population of similar IQ in proportions with a father in the home or with poor school performance. The method of selection eliminated correlations between three variables: occupational status of the guardian, father's presence, and school problems (but not between truancy and retardation).

As an approximate measure of the presence of antisocial peers, we will use delinquency rate in the census tracts lived in, as previous studies have. Despite the inadequacy of census tract data as a measure of delinquent associates, locating boys in census tracts does at least allow us to look for differences between rates for boys living in densely Negro and fringe areas, and in areas where there was more or less *likely* to be delinquent companionship available.

RESULTS

Twenty-six percent of our sample of 296 had a police or Juvenile Court record before the age of 17. Fourteen percent had a record before age 15. Twelve percent had their first record at age 15 or 16.

TABLE 1

COMPARISON OF SAMPLE SELECTED WITH ALL NEGRO SCHOOL BOYS BORN IN 1931

	Sample (296)	Population of Boys With IQ of 85+ (401)	Total Population of Boys (813)
IQ 85+	100%	100%	49%
Occupation of guardian: unemployed, domestic, laborer	50	73	76
School problems	50	53	70
Retardation	32	32	55
Truancy	43	45	59
Father in home throughout elementary school	52	58	57

TABLE 2

FAMILY AND SCHOOL PERFORMANCE FACTORS IN DELINQUENCY

	Juvenile Delinquency		
	Ever	Before 15	After 15 (of those not previously delinquent)
Total Delinquents	26% (296)*	14% (296)	14% (256)
Guardian's Occupation			
Low: Unemployed, domestic or laborer, (SEI = 10 or less)	31 (148)	18 (148)	14 (121)
High: All others (SEI = 11+)	20 (148)	9 (148)	14 (135)
	$\chi^2 \dagger = 3.98, p < .05$	$\chi^2 = 4.88, p < .05$	n.s.
Elementary School Retardation			
Moderate or severe	33 (94)	23 (94)	12 (72)
No serious retardation	22 (202)	9 (202)	15 (184)
	$\chi^2 = 3.31, p < .10$	$\chi^2 = 10.32, p < .01$	n.s.
Elementary School Truancy			
Moderate or severe	35 (127)	20 (127)	19 (102)
No extended truancy	19 (169)	9 (169)	11 (154)
	$\chi^2 = 5.71, p < .02$	$\chi^2 = 6.35, p < .02$	n.s.
Father Present	26 (155)	17 (155)	10 (128)
Father Absent	26 (141)	9 (141)	18 (128)
	n.s.	$\chi^2 = 3.58, p < .10$	n.s.

* Figures in parentheses in this table, and Table 3, are the total number of cases on which percentages are based.

† Two-tailed test with correction for continuity is used in this table and in Table 3.

Four variables in the school records were tested for relationship to the occurrence of delinquency: school retardation, apparent truancy, guardian's occupation, and father's presence or absence (Table 2). The criteria used to dichotomize these variables can be found in footnote 14. Truancy and guardian's having a low status occupation were found to be related to delinquency at a statistically significant level, and school retardation was close to significance. About a third of the boys with truancy, retardation, or a lower status guardian eventually became delinquent, compared with one-fifth of the remainder. Surprisingly, no relationship was found between father's presence or absence and delinquency.

Since the sample selection method had eliminated correlations between school problems, class status, and father's presence, school problems and class are independent of each other as predictors of delinquency. When truancy was tested holding retardation constant, truancy was still found to be predictive of delinquency ($\chi^2 = 6.34$, $df = 2$, $p < .05$). When retardation was tested, holding truancy constant, no significant relationship was found. The small relationship between school retardation and delinquency apparently resulted in part from the fact that retardation is a frequent concomitant of truancy. Retardation, nevertheless, seemed to make a small contribution, since the presence of retardation, in the absence of truancy and very low status, still showed a (non-significant) relationship to delinquency (11% with none of the three variables *vs.* 31% with retardation only), and its presence also added a small amount to the effect of low status in the absence of truancy (22% with low status only; 28% with low status and retardation). The additive effect of lower class status and truancy can be seen in the fact that with neither, 14% were delinquent, with one only, 25%, and with both, 42% ($\chi^2 = 14.31$, $df = 2$, $p < .001$).

As pointed out above, one advantage of using a school-boy cohort to study delinquency is that one can base rates of first delinquencies on populations of children *not yet* delinquent. The rate of early delinquency (delinquent before 15) in Table 2 is based on the total sample of children studied, but the rate of late delinquency (first offense at 15 or 16) is based on the sample of children *not* delinquent before age 15.

While school retardation had been not quite significantly related to the total delinquency rate, it was the variable most highly related to *early* de-

linquency. Almost one-fourth of children held back in elementary school had juvenile offenses before 15, as compared with only one-eleventh of those with regular progress. Truancy and guardian's low status occupation also predicted early delinquency, as they had the overall delinquency rate. Whether or not the father was in the home was still not quite significant, but early delinquency was more common when the father was *present* than when he was absent. Neither truancy nor retardation was significant when holding the other constant. Again cumulating significant predictors gave striking results. With none of the predictors present, only 3% were delinquent before age 15; with all three, 36% were ($\chi^2 = 21.27$, $df = 3$, $p < .001$).

None of the four variables in the elementary school record significantly predicted delinquency in children who had not yet acquired a police record by their fifteenth birthday.

A corollary to the finding that late delinquency was not predicted by the three variables that predicted early delinquency is that these variables not only predicted the *occurrence* of delinquency but the *age* at which it would first occur if it occurred at all. Delinquents with all three predictors were under 15 years of age at the time of their first offense in 83% of cases. With only two predictors, 55% of the delinquents were less than 15 at the time of their first offense. With only one predictor, 44% of the delinquents were less than 15; and delinquents with none of these predictors had a first offense before 15 in only 25% of cases ($\chi^2 = 6.85$, $df = 2$, $p < .05$).

An absence of low status, retardation, and truancy in elementary school, therefore, permits two predictions: that few children will be delinquent at all, and that the exceptional child who is delinquent will come to police attention after age 15.

To see whether delinquency in these boys could be accounted for by the delinquency rate of the census tracts in which they lived, each boy was assigned to the census tract in which his address fell either at the time of his first police or court record or, if he had no such record, at the time he left elementary school. Time of leaving elementary school was chosen for the non-delinquents because their average age at that time was 14, the same average age as that of the delinquent when he had his initial police contact. The average date at which boys lived at these addresses was 1946. At that time only 31 of the city's 128 census tracts

contained any of our Negro boys, and the tracts to which the Negro population was confined were predominantly high-delinquency tracts. Ninety-seven percent of our sample lived in tracts in the upper half with respect to city delinquency rates as of 1957 (the earliest date at which juvenile offenses were analyzed by census tract rather than by the larger and more heterogeneous police district), and more than half (58%) lived in the highest quartile.

No differences at all were found when delinquency rates of Negro boys living in tracts with higher or lower city delinquency rates were compared. Boys in tracts in the highest quartile were delinquent in 25% of cases; in the second highest quartile in 28% of cases; and in the lower two quartiles combined, again in 25% of cases. Early and late delinquency were equally unrelated to tract delinquency rates. Living in tracts in the highest delinquency quartile, 13% of the boys received a record before 15, as did 14% of the boys living in the second highest quartile, and 25% (two of the eight boys) in tracts falling in the lower half by city delinquency rates. Of those not yet delinquent at fifteen, 14% received juvenile police records while living in tracts in the highest delinquency quartile, as did 14% in the second highest quartile, and none of the six cases in census tracts in the lower half.

It was possible that no differences in rates had been found between boys living in high *vs.* lower

delinquency tracts because the city delinquency rates were available only for an inappropriate year or because the confinement to high delinquency areas masked inter-tract differences in Negro delinquency. To overcome these limitations, tracts rates were computed for the boys studied themselves, assuming their rates were proportional to the rates for Negro boys living in these tracts at this time. Tract differences in delinquency rates for these Negro boys could be studied only in the nine tracts containing at least ten Negro boys apiece. These nine tracts contained 72% of the sample and averaged 24 boys each. Delinquency rates for the boys residing in these nine tracts ranged from 17% to 32%. When divided into the four highest delinquency tracts (24% or more) and the five lowest (21% or less), delinquency rates were not significantly different between the two groups, demonstrating how homogeneous delinquency rates of Negro boys were from one area to another (Table 3, Column A). (That small geographical differences may exist, however, was suggested by the fact that the three highest tracts were contiguous.) And delinquency rates for boys living in these nine tracts selected because they contained ten or more Negro boys did not differ markedly from rates for boys living in less densely Negro areas. Among boys living in the 22 tracts in which fewer than ten Negro boys lived, the delinquency rate was 30%, slightly higher than the

TABLE 3

DIFFERENCES IN INTERTRACT RATES AND THEIR EFFECT ON THE DELINQUENCY OF CHILDREN WITH AND WITHOUT SOCIAL AND PERSONAL CHARACTERISTICS PREDICTING DELINQUENCY

	A	B	C
	All Boys	None Of The Predisposing Characteristics (No serious truancy or retardation, not from lowest social status)	All Three Predisposing Characteristics (Significant truancy and retardation and from lowest social status)
	Total Percent Delinquent		
Four High Delinquency Tracts (24-32% delinquent)	28% (108)	8% (26)	56% (9)
Five Low Delinquency Tracts (17-21% delinquent)	19 (104)	13 (30)	50 (8)
	Percent Delinquent Before 15		
Five Tracts With High Early Delinquency Rates (13-21%)	14 (113)	3 (29)	56 (9)
Four Tracts With Low Early Delinquency Rates (5-10%)	9 (86)	4 (27)	25 (8)
	Percent First Delinquent After 15 (of those never previously delinquent)		
Four Tracts With High Late Delinquency Rates* (12-22%)	17 (99)	8 (26)	17 (7)
Four Tracts With Low Late Delinquency Rates* (0-10%)	8 (76)	7 (27)	33 (3)

* Based on population not delinquent before 15.

rate of 24% for boys in the more heavily Negro areas, but not significantly greater.

This homogeneity of tract rates was characteristic of both early and late delinquency. When the nine tracts containing ten or more boys were divided into those in which more than 10% and those in which 10% or less became delinquent before age 15, the difference between delinquency rates for the two groups (14% *vs.* 9%) was not significant. Late delinquency could be studied in eight tracts which contained at least ten boys who had not yet become delinquent by age 15. Again, rates of late delinquency did not differ significantly between tracts in which more than 10% and tracts in which 10% or less of the boys not yet delinquent by age 15 eventually became delinquent (17% *vs.* 8%).

If the delinquency rate of the tract had contributed to the delinquency of children living in that tract, one would expect to find that, given equal degrees of family and personal characteristics predisposing to delinquency, children in high delinquency tracts would become delinquent more often than children in low delinquency areas. This possibility was tested by comparing delinquency rates in tracts with higher and lower proportions of the sample delinquent for children with none of the predisposing factors of low social status, truancy, and retardation and for children with all of them (Table 3, Columns B and C). Children with none of the three factors related to delinquency were no more often delinquent in high than in low delinquency tracts. This absence of tract effect for such children was found with respect to both early and late delinquency. Delinquency rates were also very similar in high and low delinquency tracts for boys with all three predisposing factors. Approximately half became delinquent wherever they lived. The conclusion to which these findings appear to lead is that the small differences in delinquency rates between tracts may better be attributed to differences in their proportions of children with social and personal characteristics predisposing to delinquency than to any spiraling of rates due to the reinforcement of delinquent behavior by the presence of delinquent peers.

DISCUSSION

This paper is an exploratory effort in using a cohort of Negro school boys to study factors predicting juvenile delinquency. The present study reaffirmed the importance of poor school perform-

ance and low status as predictors of delinquency. But it did not support the widely reported relationships between absent fathers or delinquency rates of the census tract lived in and delinquency. This Negro population had the same delinquency rate whether it lived in the center of the Negro ghetto or on its fringes, in the city's highest delinquency areas or in lower ones. Nor were there striking tract differences in delinquency among these boys themselves.

One reason for the homogeneity of tract rates was probably that restrictions on place of residence for Negroes during the years in which these boys were growing up did not allow the conforming Negro population to escape crime-ridden neighborhoods. If confined populations show little intertract variability in delinquency rates, it is no wonder that cities which differ in their percent non-white and in the degree to which their non-white populations are confined present inconsistent findings when social area analysis attempts to relate delinquency rates to social status, urbanization, and segregation. It may be worth testing the hypothesis that seems implicit in these findings: tract delinquency will be most highly differentiated and most strongly related to social status, holding other variables constant, the greater the residential choices open to the ethnic groups which contribute most to city-wide delinquency rates. If this hypothesis is correct, one would expect the current trends toward increased freedom of residence for Negroes to be associated with rising correlations between class and delinquency and falling correlations between segregation indices and delinquency.

The absence of an association between census tract lived in and the late onset of delinquency raises a question about the validity of differential association as a cause of delinquency. The fact that no tract differences were found for boys whose delinquency began *early* does not challenge this theory, since when children are young, their age peers who will eventually become delinquent have not yet become so. *Young* boys find their friends almost exclusively among non-delinquents even when they live in high delinquency areas. The predictors of early delinquency, then, might be expected to lie in family characteristics and individual behavior rather than in tract rates. But as children grow older, the rate of delinquency among their age peers increases proportionate to the tract delinquency rate. The failure to find a relationship between tract rates and the first delinquency of older

children, then, suggests that the degree of opportunities for associating with delinquents has no marked effect on the chances of Negro boys' becoming delinquent. Again, these findings may result from the containment of the Negro population. Since Negro boys lived almost exclusively in high delinquency areas, all of them probably had ample opportunity to associate with delinquents. Differences in tract rates should probably not be expected to be a critical factor in delinquency for confined populations with high delinquency rates. It would be worth exploring among white delinquents whether tract rates are not more highly related to late than to early delinquency.

Since not only census tract rates, but also family status and early school history, were unrelated to late delinquency, we have located *no* predictors in elementary school records of the first emergence of delinquency after age 15. Since characteristics observable in elementary school records predicted only *early* police records, attempts by groups like the New York Board of Children's Guardians to predict the future delinquency of young children might be more successful if the outcome predicted were limited to *early* delinquency, rather than accepting the upper age limit set by the local legal code.

These findings suggest that early and late delinquency may have different etiologies. Contradictory answers have been obtained concerning the prospects for *recidivism* based on age of first offense,¹⁵ but little attention has been paid to

¹⁵ WOOTTON, SOCIAL SCIENCE AND SOCIAL PATHOLOGY 157 (1959).

differences in *precipitating factors* relative to age of first offense (except for the observation that male delinquency begins earlier than female delinquency). Perhaps age of onset is the clue that will reconcile conflicts between causal theories that see delinquency as the product of underlying personality disturbance and causal theories that see it as a response to status deprivation or an exaggeration of normal adolescent rebellion. Male delinquents who start young may be reflecting personality disturbances, while late delinquents may be responding to the frustrations of adolescence, intensified by membership in an underprivileged population.

While this preliminary attempt to study the causes of delinquency by analyzing delinquency records of a cohort of boys¹⁶ chosen at entry into the public school system leaves many unsolved problems and raises questions which need further exploration, it may open one way in which we can better specify the population to whom predictive variables apply. If we are no longer satisfied with findings that lower class status, broken families, and delinquent peers are correlated with delinquency, but attempt to specify for which subpopulations in terms of age, sex, and ethnic background these are good predictors of delinquency, we will be in a better position to plan preventive measures.

¹⁶ It is gratifying to learn that a larger study of delinquency within a cohort of boys of both races is under way in Philadelphia. The study is directed by Thorsten Sellin and Marvin Wolfgang, at the Center of Criminological Research, University of Pennsylvania, Philadelphia, Pennsylvania.