Experiment in Predicting Delinquency, An

Ralph W. Whelan
AN EXPERIMENT IN PREDICTING DELINQUENCY

RALPH W. WHELAN

The author is Executive Director of the New York City Youth Board. His experience includes that of a social worker in New Haven; Research Assistant with the Glueck Research at the Harvard University Law School; Assistant Secretary of the National Conference of Catholic Charities; Executive Director of the Youth Counseling Service of the Archdiocese of New York. His connections with active committees in civic organizations are legion.

Mr. Whelan is author of "God's Rascals", 1943. During 1942 to 1944 he was Editor of Monographs I, II, and III on Certain Aspects of Case Work Practices in Catholic Social Work.—EDITOR.

The history of the study and treatment of juvenile delinquency is marked by a multiplicity of efforts and by contradictory results. Each of the disciplines which touch on problems of social control and human behavior has contributed its separate analysis and emphasis. Delinquency has been ascribed to such varied roots as inadequate housing, hereditary traits, lack of recreation facilities and broken homes. Allied with these scattered and divergent approaches is the confusion inherent in the concept of delinquency. In practice, every definition of delinquency assumes a legal aspect and is dependent on the varying social norms and attitudes of each community and those individuals who carry out the legal processes.

Yet when placed within the context of the more general behavioral disorders of children, the study of delinquency has been subject to all the divergencies within that highly complex and volatile area. Moreover, the difficulties of acquiring objective information about any aspect of human behavior are compounded by the nature of the delinquent act. Delinquent behavior directly threatens the general social order and violates strong traditional values, bringing forth deep-rooted responses and defenses among those concerned with its prevention and treatment.

Beset as we are with these problems in causal analysis, it is no wonder that a philosophy of cure rather than of prevention underlies most programs dealing with delinquency. As Abbott P. Herman points out:

We are repair minded. When the problem does crop out, we usually deal with it on an individualized basis, through the special services of some agency. Or if we do not deal directly with the individual affected by the problem, we attack the more superficial causes. In either case, we find ourselves in the position of putting a poultice on the wounded area, of doing too little, too late. Sutherland, Ogburn, Lynd, Plant and others have shown the wastefulness, the inefficiency of that approach. Attacking the problem after it has become manifest and unduly severe (society usually does not take action until the problem reaches emergency proportions) involves the creation of many different types of services and agencies which duplicate effort, raise costs and magnify the public debt. Furthermore, permanent "cures" are few and the recurrence percentage is high.

"The sciences of behavior must arrive at a preventive approach. Medicine is slowly undergoing this shift in emphasis. The cost of waiting for problems to turn up and then "muddling through" is neither good sense nor good science."¹

AN EXPERIMENT IN PREDICTING DELINQUENCY

We may add that it is also not good dollars and cents. The increasing number of delinquents in the crowded calendar of our criminal and delinquent courts is evidence of the ineffectiveness of the piece-meal job communities have been doing.

A wholly effective prevention program must encompass the skills and knowledge of many disciplines and take account of the sometimes contradictory social values and institutions which inhibit and channel human behavior. There is an obligation on the part of each discipline to sharpen and place in perspective its contribution to the solution.

The detailed studies of Doctors Sheldon and Eleanor Glueck in the field of delinquency over the past twenty-five years have been among the most valuable in furnishing social workers a basis for preventive action. For the past fifteen years their attention has been devoted to a comprehensive study of matched groups of 500 institutionalized delinquents and 500 non-delinquents. The results, reported in *Unraveling Juvenile Delinquency*, provide unparalleled data about many factors, including social background, physique, and traits of character and temperament.

From this intensive study, the Gluecks have developed a prediction table based on the differences in family relationships between the two groups. The table is designed to prognosticate early in life a child’s chances of future delinquency. This narrowing of focus, based on such thorough and detailed compilation of evidence has given promise of great advances in the prevention of delinquency.

Because it is so directly related to our philosophy and goals, the application of such a predictive device was of immediate interest to the New York City Youth Board. The Youth Board, in addition to further extending traditional preventive and treatment facilities, has been established on a two-point philosophy of operation. First, it is concerned with developing ways to reach potentially delinquent children at a time when treatment can be most effective and before their problems have resulted in overt delinquent behavior. The delinquent behavior itself adds other complexities to adjustment. Secondly, the Youth Board is dedicated to developing new skills in providing treatment for such children and their families. Underlying these foci is the responsibility to base our program on the firmest possible research foundation.

The predictive instrumentality developed by the Gluecks can have great importance for the Youth Board in further focusing and refining its program. If the instrumentality were validated, it would enable us to select those children most in need of service at a very early age and to concentrate on the further development of the most effective kind of treatment processes.

The social prediction table has been previously applied by two independent investigators in two different cities. Bertram J. Black and Selma Glick applied the social prediction table to 100 Jewish boys committed to Hawthorne School as delinquents. The authors concluded that, “the application of the Gluecks’ social prediction table indicated that it could have been foretold that 91 percent of the youngsters...”

---


in the Hawthorne group were headed for delinquent careers. Furthermore, this could have been prognosticated very early in the lives of these boys."

Richard E. Thompson tested the prediction table on cases taken from the Cambridge-Somerville (Massachusetts) Youth Study, in which over 500 boys of varying ages were studied between 1937–1939 and were followed-up through 1949. Mr. Thompson in reporting on this study in this publication concluded:

It has been found that when the Glueck Social Prediction Table was tested against a sample of 100 boys of different age distribution, ethnic background, intelligence, economic status and neighborhood, it was able to identify accurately ninety-one percent of the boys who in the years that followed proved definitely to be either non-delinquents or delinquents. It maintained its high reliability when specifically applied to boys as young as six years. Its predictive power was maintained on boys of ethnic origin different from that of the series on which it had originally been constructed; on a group whose intelligence quotients were higher than those in the original group; on boys of somewhat better economic status than in the original sample in Unraveling Juvenile Delinquency; and it was just as effective when checked on boys residing in more privileged city areas.

These results were most encouraging, but left important questions as yet unresolved. No investigator had applied the prediction table to a group of children prior to the onset of overt symptoms, at a very early age and tested it through follow-up study to determine its validity in predicting future behavior.

The Youth Board was in a favorable position to undertake this kind of a study. Staff and resources were available. Both for our own use and as part of our larger responsibility to the study of delinquency the Youth Board set out in the fall of 1952 to test the validity of the social diagnostic table in the actual prediction of delinquency. The project is still in its infancy. However, at this time, the general research plan and some practical considerations in the administration of such a project may be of help and interest to other agencies and individuals.

THE SOCIAL DIAGNOSTIC TABLE

The method of the construction of the Glueck Social Prediction Table is detailed in Unraveling Juvenile Delinquency. A summary has been presented in this JOURNAL also. For our purposes, it will be sufficient to review here only certain salient features involved in constructing the prediction table.

An extensive social history was gathered for each of the 500 delinquent and 500 non-delinquent boys studied by the Gluecks. Statistical analysis disclosed important differences between the two groups which could be used for predictive purposes.

Several criteria were important in the selection of the social factors included in the predictive table from among the comprehensive data collected. Initially, those factors were selected which most sharply differentiated the delinquent and non-delinquent boys. This selection was then narrowed to those factors which would be ap-
AN EXPERIMENT IN PREDICTING DELINQUENCY

TABLE I
THE FIVE SOCIAL PREDICTIVE FACTORS WITH THE WEIGHTED FAILURE SCORE OF EACH SUB-CATEGORY

1. Discipline of Boy by Father
   (71.8) Overstrict or erratic
   (59.8) Lax
   (9.3) Firm but kindly

2. Supervision of Boy by Mother
   (83.2) Unsuitable
   (57.5) Fair
   (9.9) Suitable

3. Affection of Father for Boy
   (75.9) Indifferent or hostile
   (33.8) Warm (including overprotective)

4. Affection of Mother for Boy
   (86.2) Indifferent or hostile
   (43.1) Warm (including overprotective)

5. Cohesiveness of Family
   (96.9) Unintegrated
   (61.3) Some elements of cohesion
   (20.6) Cohesive

TABLE II
FOUR-CLASS SOCIAL PREDICTION TABLE

<table>
<thead>
<tr>
<th>Weighted Failure Score</th>
<th>Chances of Delinquency</th>
<th>Chances of Non-Delinquency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 200</td>
<td>8.2</td>
<td>91.8</td>
</tr>
<tr>
<td>200-249</td>
<td>37.0</td>
<td>63.0</td>
</tr>
<tr>
<td>250-299</td>
<td>63.5</td>
<td>36.5</td>
</tr>
<tr>
<td>300-and over</td>
<td>89.2</td>
<td>10.8</td>
</tr>
</tbody>
</table>

The five factors finally used appear in Table I with the failure scores assigned each sub-category. The weighted failure scores were derived from the percentage of the incidence of delinquency among all the boys in each of the sub-categories.

In applying the table, each boy is rated and scored according to the five social predictive factors. His total score places him within a category as shown in Table II, which predicts his chances of delinquency and non-delinquency.

GENERAL RESEARCH CONSIDERATIONS

In order to test the effectiveness of the table as a prognosticator of future delinquent behavior, it was essential that the children under study be too young to have already engaged in what the community generally considers delinquent behavior. For this purpose, children ranging from five to six and a half years of age who were entering first grade in public schools in New York City were selected for study. Since entering school is the first time children come to the attention of the community in large numbers, data on feasibility of administering this kind of test at that time is of particular importance in terms of future routine application of the Glueck Social Prediction Table.
In addition, this project is designed to include the study of the effectiveness of present methods of individual treatment. It is planned to provide treatment for one group of boys with high failure scores, (more than a 50-50 chance of becoming delinquent) while another group of boys with equally high failure scores will not receive any planned treatment. Both groups are to be matched for ethnic background. The clinical study before and during therapy will make further diagnostic contributions to the understanding of delinquency in its incipient stages. Rorschach tests will be administered both before and after treatment in order to make possible a better appraisal of the effectiveness of the help extended to the child.

In choice of schools and neighborhood, the study group, by design, includes high proportions of Negro and Puerto Rican children. The findings in relation to the applicability of the prediction table to different ethnic groups will be one of the most significant results to emerge from the present study. While the Gluecks included a variety of national groups in their sample, there were no Negroes nor Puerto Ricans.

Because of the treatment aspect, it was necessary in setting up the project that Child Guidance clinic facilities be available for one part of the group. Fortunately, such facilities were already in operation in one grammar school in the Bronx Borough, under the auspices of the Three Schools Project of the Youth Board and the Board of Education. First grade children in this school as well as those in a second school located in a similar neighborhood with similar socio-economic characteristics were selected for the study. The two schools are four blocks apart.

A comprehensive study was made of the areas from which these two schools draw their pupils. From this analysis, it appeared that the children growing up in these areas will be exposed to as similar environments as is possible to achieve within the natural setting of a study in such a large and multicultural city. Both areas are characterized by declining population and a rapid change in the population composition. Both areas are characterized by a large influx of Negro and Puerto Rican populations. Both areas are considered marginal in that large portions of both are zoned for industry and/or commerce. The same kind of community resources serve each area and recreational resources are about the same. There are no supervised play streets or play grounds in either school district. Other indices of income, rental, and housing conditions are similar for both areas.

**The Gathering of the Social Histories**

All the boys entering first grade in both schools between September, 1952 and May, 1953 were included in this study. Data were obtained from three sources: interviews with mothers and, where necessary, fathers conducted in the home by trained social caseworkers on the staff of Youth Board and Board of Education Projects; personal interviews with teachers conducted by research staff members; collateral information from social agencies which had previously known the families. All cases were cleared through the Social Service Exchange.

---

8 The sources of the data were the 1950 United States Census, New York City Planning Commission, Welfare and Health Council of New York City, New York City Department of Health. In addition, two research workers were sent into the neighborhoods to chart on a block-by-block basis the neighborhood characteristics and population composition.
A structured form was devised as a guide in the collection of data. The workers were oriented in the purpose of the study and use of the schedule. Only factual data were to be gathered as the basis for the scorer's judgment and personal interpretations and diagnostic statements were omitted. Each schedule was reviewed immediately upon receipt for adequacy of information so that further study could be undertaken at once if indicated.

The success of the approach used to gain the cooperation of the boys' families was important not only from the point of view of the validation study but also in term of the feasibility of routine application of the table in similar settings in the future.

It was decided, after testing several approaches, to make unannounced home visits. It was found in the pilot project that letters to parents asking for an appointment aroused their suspicion. To many parents, letters meant that their boy had been misbehaving. Such fears and resentments on the part of parents could be best handled directly by the social worker at the time of her call. Also, experienced people in the research field felt that a truer impression of the home situation would be gained if visits were made without appointments.

The workers introduced themselves to the parents as representatives of the New York City Youth Board, an agency interested in children. In general, the approach to the family was: "the Youth Board is visiting the homes of all the boys entering your son's class and we are interested in knowing as much as possible about these boys in first grade, and their problems in growing up. We hope to follow them for a number of years to see how they get along." Parents were further reassured by telling them that their cooperation was on a purely voluntary basis and the confidential nature of the information was stressed.\(^9\)

The supervisor of the Youth Board project rated all cases in accordance with the Glueck Social Prediction Table. All cases were scored independently by another qualified person who had experience in applying the scale to 100 delinquent boys in an institution in New York City.

There are four predictive score classes, as shown in Table II. These classes are based on the actual weighted failure scores as follows: boys with total failure scores under 200 are classified as having 8.2 chances of delinquency per hundred; those with scores between 200 and 249 in the group having 37 chances of delinquency per hundred; those with scores between 250 and 299 in the group having 63.5 chances of delinquency per hundred; and those with scores of 300 and over in the group having 89.2 chances of delinquency per hundred.

In 90 per cent of the cases the two raters placed the boy in the same predictive score class. For one half of the remaining cases (10 per cent), differences in predictive score class did not extend beyond the limits of the delinquent or non-delinquent range, i.e. groups with 8.2 and 37 chances of delinquency are considered in the non-delinquent range; those with 63.5 and 89.2 chances of delinquency are considered in the delinquent range. All cases on which the raters differed, as to predictive score class were sent to Dr. Eleanor Glueck for final rating.

TABLE III
NUMBER AND PERCENT OF BOYS BY ETHNIC GROUP

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>All boys</td>
<td>223</td>
<td>100.0</td>
</tr>
<tr>
<td>White</td>
<td>51</td>
<td>22.9*</td>
</tr>
<tr>
<td>Negro</td>
<td>131</td>
<td>58.7</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>41</td>
<td>18.4</td>
</tr>
</tbody>
</table>

* One-half are of Jewish parentage.

ETHNIC AND RACIAL COMPOSITION OF STUDY GROUP

In all, 223 boys were included in the study group. The sample was markedly different from the group of boys studied by the Gluecks in ethnic and racial makeup. Only 51 boys, or 23 percent of the total number were white, whereas all members of the group from which Table III was developed were white. For the purposes of the study, children of Puerto Rican parentage were classified separately and made up approximately 18 percent of the total group. Approximately 59 percent of the children were Negro. It is of interest to note that almost half of the white group were boys of Jewish parentage, whereas, only two percent of the original Glueck sample belonged to this group.

DISTRIBUTION OF FAILURE SCORES

In the application of the Glueck Social Prediction Table, the score of 250 is considered to be the "cutting-off" point between potential delinquency and non-delinquency.

Seventy-one boys, or 31.8 percent of the group studied, were assigned failure scores of 250 or more. Forty eight of these boys were assigned scores between 250 and 299 on the basis of the table, and have six in ten chances of becoming delinquent. The remaining 23 given a score of 300 or more have nine in ten chances of becoming delinquent according to the Glueck table. Table IV gives the distribution of failure scores.

Eighteen percent of the white group were assigned failure scores of 250 or more, 38 percent of the Negroes and 29 percent of the Puerto Ricans.

Considerable question has been raised as to the possible validity of the diagnostic table when applied to boys of racial and cultural backgrounds different from the members of the group on which the table was originally constructed. Environmental and social pressures will differ as well, perhaps, as the relative significance of the diagnostic factors in the growth of the boy. While it will be important to test the table's validity in this respect, the number of white children in the study will be in-

TABLE IV
DISTRIBUTION OF BOYS ACCORDING TO WEIGHTED FAILURE SCORES

<table>
<thead>
<tr>
<th>Failure Score</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 200</td>
<td>115</td>
<td>51.6</td>
</tr>
<tr>
<td>200-249</td>
<td>37</td>
<td>16.6</td>
</tr>
<tr>
<td>250-299</td>
<td>48</td>
<td>21.5</td>
</tr>
<tr>
<td>300 and above</td>
<td>23</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Total          | 223    | 100.0   |
increased by including the white boys entering first grade each year in both schools until the sample is as large as the Negro group.

**Socio-Economic Characteristics**

Approximately 80 percent of the total group in the study were considered to be economically dependent or marginal families. The 60 percent considered marginal were families supported occasionally or in part through outside help or relatives, where employment of the main wage earner was seasonal or irregular, and when the family income was low in relation to family size. Differences as to economic status were wide between the group with high chances of delinquency and the group with low chances of delinquency. Forty-two percent of the group with high delinquency scores came from families dependent in whole or in part on public or private agencies, whereas only 11 percent of the non-delinquent group came from families so supported. Approximately 24 percent of the non-delinquent group lived in families whose economic status could be described as comfortable, whereas, about 10 percent of the potentially delinquent group came from such families.

There were no real differences between the two groups as to residential mobility. The families of the “high chance” delinquents averaged 4.8 years of residence in the same dwelling place while the families of the non-delinquents averaged 5.0 years. Only one fifth of each group resided for less than one year at their present address. There is some variation in mobility according to ethnic background since the Puerto Ricans, who are recent migrants, had only lived at their present residence an average of 2.9 years.

In the present sample, 85 percent of the “low chance” delinquents were living with both their own parents, whereas, only 36 percent were living with both their own parents among the “high chance” delinquents. There was a wide variation in the pattern of whites and Negroes in this respect. Of the 51 white children, 45 or 88 percent had both parents; of the 131 Negroes, 77 or 58 percent had both parents; of the 41 Puerto Rican children, 33 or 80 per cent were living with both their own parents.

**Follow-Up Plans**

An annual follow-up is planned for each of the 223 boys. School reports have been obtained on the behavior and personality traits of each boy for the year 1953–54. Beginning in September, 1954, annual home visits will be made as well. Each family will also be cleared through the Social Service Exchange. The return interview will review the present situation with regard to the predictive factors and will cover as much information as possible about the leisure time habits of the boys as well as general behavior in the home. This kind of information we believe, will help us to further our understanding of how and when a boy begins to show signs of delinquent or asocial behavior. This material will be of great value in analysis of final comparisons between actual behavior and prediction.

The definition of delinquency used by the Gluecks will be applied to the boys in the Youth Board study.

Delinquency refers to repeated acts of a kind which when committed by persons beyond the statutory
juvenile court age of sixteen are punishable as crimes (either felonies or misdemeanors)—except for a few instances of persistent stubbornness, truancy, running away, associating with immoral persons, and the like. Children who once or twice during the period of growing up in an excitingly attractive milieu steal a toy in a ten cent store, sneak into a subway or motion picture theatre, play hooky, and the like and soon outgrow such peccadilloes, are not true delinquents even though they have violated the law.

**TREATMENT PLANS**

Thirty-one of the “high chance” delinquent group, were referred for treatment in the Child Guidance Clinic in their school. This clinic was established in 1949 as a part of the Three Schools Project jointly sponsored by the Youth Board and the Board of Education. As well as offering direct treatment to troubled youngsters, the clinic offers an ancillary service to the school in its consultative and advisory function.

Several factors in the clinic’s location in the school setting differentiate its mode of operation from that of the traditional child guidance clinic and make it ideally suited to carry out the treatment aspect of this particular study. There is an initial advantage in that the clinic has secured some familiarity and acceptance of its function among the children and adults in the neighborhood. Children are more accessible in the school setting, and the close relationship between school personnel and clinic staff enables a richer treatment program. The clinic has also built up experience in developing techniques for gaining the cooperation of parents who do not always recognize their children’s problems, nor come to the clinic of their own initiative.

Clinic workers have noted that the parents of children referred to them through this study are among the most difficult to reach in order to plan help. The analysis of initial steps in referral is not yet complete, but on an impressionistic basis, workers report that while not all of the children are presenting overt behavior problems, clinical examination discloses incipient problems. We feel that the opportunity to work with this group of children in the clinic setting will furnish us with important systematic data on the ways in which parents can be involved in treatment and on the kinds of help which can be extended to these youngsters and their families. I will also point out those areas where new skills are needed. While the high delinquency score group in the other school will not be offered planned treatment, undoubtedly some of them will come to the attention of community agencies and contacts with such agencies will be analyzed carefully.

**VALUES OF THE STUDY**

The value of the use of such a predictive table is obvious. For the Youth Board’s own program, it means that in addition to working within areas of highest rates of delinquency, it may be possible to select individual children within specified geographical areas who are in greatest need of special attention.

It is possible that such a tool, if validated, may be routinely applied at the time of public school entrance. At this point, the data relating to the home relationships might be accumulated and scored by persons familiar with the table. Special help could then be offered those children receiving high failure scores. Indeed, such direct
evidence of need as produced in valid applications of such a scale would be mighty weapons in securing wider acceptance of preventive measures, and the necessary financial support.

Whether or not the table in its present form is validated, the findings of the current study should be of real value as a help in establishing its limitations, and will make possible the development of even more sensitive and effective instruments of prediction. A major contribution of this kind of study lies in the fact that it is an “on-the-spot” look at potential delinquency, rather than a retrospective fitting together of pieces. Because the follow-up material will be gathered on a yearly basis, we will have more immediate access to knowledge of changes and crises in family situations and other aspects of each boy’s growth. Current observation, sharpened by the cumulative evidence gathered in retrospect can amplify and further refine previous findings.

Prediction and control are the hallmarks of scientific method. Any significant study into the causation of juvenile delinquency or any other social pathology is not merely an academic or esoteric research project, but is ultimately related to the fundamental purposes of prediction and control. To the extent to which we understand the causes of the phenomenon, in that same measure, can we be more effective in predicting its development and controlling its manifestations.