

SOME OBSERVATIONS ON THE LINK
BETWEEN LEARNING DISABILITIES AND JUVENILE DELINQUENCY

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ABSTRACT

A sample of 1,005 public school and 687 adjudicated juvenile delinquent youths (ages 12 to 17) reported about delinquent behaviors in which they had engaged. The youths' educational records were screened and, if the presence of learning disabilities could not be discounted, the children were given a series of tests. Every child was classified as either learning disabled or not. It has been hypothesized that learning disabilities are related to juvenile delinquency. The results show that proportionately more adjudicated delinquent children than public school children are learning disabled. Self-report data, however, show no differences in delinquent behaviors engaged in by learning-disabled and not learning-disabled children within either the adjudicated or public school samples. Public school children who have learning disabilities report that they are picked up by the police at about the same rate as not learning-disabled children, and engage in about the same delinquent behaviors. Charges for which learning-disabled and not learning-disabled adjudicated delinquents are convicted follow the same general patterns. A hypothesis based on the idea that learning-disabled and not learning-disabled children engage in the same delinquent behaviors is more parsimonious in light of these findings. It is proposed that the greater proportion of learning disabled youth among adjudicated juvenile delinquents may be accounted for by differences in the way such children are treated within the juvenile justice system, rather than by differences in their delinquent behaviors.

SOME OBSERVATIONS ON THE LINK
BETWEEN LEARNING DISABILITIES AND JUVENILE DELINQUENCY

The relationship between learning disabilities (LD) and juvenile delinquency (JD) is a topic of increasing contemporary interest to parents of school-aged children that is directly relevant to concerns of the educational and juvenile justice communities and has commanded the attentions of the United States Congress and federal agencies (e.g., Comptroller General of the United States, 1977; Gardner, 1977). For many, the relationship between learning disabilities and juvenile delinquency is obvious and compelling and they perceive the empirical evidence to be strongly supportive of an LD/JD link. One reports, for example, "It is a relatively recent discovery that an overwhelming number of juvenile offenders are handicapped, most of them learning disabled. . ." (Jacobson, 1976, p. v.). And another author states, "It seems logical to conclude that there is a strong relationship between juvenile delinquency and learning disabilities and problems" (Bernstein & Rulo, 1976, p. 44).

The two most prominent explanations for the link between learning disabilities and juvenile delinquency have been called the "school failure rationale" and the "susceptibility rationale" (Murray, 1976). The first hypothesis proposes that the child's difficulties in learning lead to classroom failure. The second hypothesis proposes that LD children have "a variety of socially troublesome personality characteristics" (p. 26). Both hypotheses

assume intermediate effects, such as the development of a poor self image, which lead to delinquent activities and, subsequently, entry into the juvenile justice system. A particularly good example of the way in which the LD/JD link commonly has been described in the literature:

Two things come into play in explaining how learning disabilities contribute to delinquent behavior. Frustration in school often leads to aggressive behavior. The child becomes more and more frustrated as his needs go unmet and the aggression spreads to all facets of his life. He calls attention to his unmet needs by delinquent behavior. Secondly, because many learning disabled children are impulsive and lack good judgment, they are unable to anticipate the consequences of their acts. They often cannot control their behavior and they do not learn from experience. (Unger, 1978, p. 27)

Of all the hypotheses suggested in the literature to explain the chain of events leading from learning disabilities to juvenile delinquency, the school failure hypothesis is cited most frequently. The strong, consistent finding that juvenile delinquents have records of lower-than-average school achievement makes this explanation appealing (see Bernstein, 1978; Comptroller General of the United States, 1977; Elliott & Voss, 1974; Graydon, 1978; and Mauser, 1974). Stated succinctly, "Understanding the relationship between learning disabilities and delinquency may be one of the most significant tasks for rehabilitation of delinquents. . . . The explanation is found in the educational system, for that is where most delinquency develops" (Jacobson, 1976, p. 6).

The relationship between LD and JD, however, has not yet been demonstrated to everyone's satisfaction. Murray summarized the pertinent literature in a study commissioned by the National

Institute for Juvenile Justice and Delinquency Prevention, of the Office of Juvenile Justice and Delinquency Prevention (1976). His extensive review concluded that none of the existing studies was sufficiently sound to establish incontrovertible evidence for the relationship.

As of the end of 1975, the existence of a causal relationship between learning disabilities and delinquency has not been established; the evidence for a causal link is feeble....Second, no study has yet been conducted which even claims to demonstrate that the average delinquent is more likely to suffer from learning disabilities than his non-delinquent counterpart. (Murray, 1976, p. 65-66)

On the other hand, Murray noted that the existing evidence, coupled with the widespread belief about the LD/JD link among practitioners, was sufficient to warrant further investigation into this area.

Following Murray's summary and recommendations, the Office of Juvenile Justice and Delinquency Prevention commissioned a research and demonstration project to investigate the relationship between LD and JD. Among other things, the investigators were given the responsibility to accomplish the following: to determine the prevalence of LD among a group of adjudicated juvenile delinquent males and among a comparable group of nonadjudicated males in public schools; and to investigate the prevalence of delinquent behavior among LD and not-LD youth. An initial two-year grant for this project was awarded to Creighton University, which contracted with Educational Testing Service (ETS) for the development and¹ administration of a diagnostic testing battery.

If, indeed, there is a relationship between LD and JD, there should be a higher prevalence of learning disabilities among juvenile delinquent youth than among nondelinquent youth. But, at the time of Murray's review, this seemingly simple hypothesis had remained untested in a rigorous manner for two reasons: first, no attempt had been made to test comparable delinquent and nondelinquent samples at the same time, with the same instruments, in a manner sufficiently objective to rule out diagnostic biases; and second, there had been no generally established operational definition of learning disabilities that could have been used among these different populations.

The prevalence of LD in the normal population has been estimated by various types of testing batteries and by expert opinion to be around 10% (e.g., Graydon, 1978; Murray, 1976). Prevalence estimates of LD among juvenile delinquents, on the other hand, generally have been higher and varied widely, e.g., 26 percent (Comptroller General of the United States, 1977), 32 percent (Duling, Eddy & Risko, 1970), 49 percent (Podboy & Mallory, 1977), 50 percent (Poremba, 1967), and 73 percent (Swanstrom, Randle, Livingston, Macrafic, Caulfield & Arnold, 1977).

The Creighton and ETS investigators reviewed the records of 1,381 12- to 15-year-old boys in the metropolitan areas of Baltimore, Indianapolis, and Phoenix (Campbell, 1978). The LD definition used in that project is explained fully in operational terms (pp. 11-12; also see Barrows, Campbell, Slaughter & Trainor, 1977). Children's

test scores, and observations made of their behaviors in the testing situation, were coded for computer entry. The LD/not-LD decision criteria then were applied through a computerized algorithm, ensuring an objective application of the LD definition-decision rules to all children. Using this definition, 16 percent of the public school youth and 32 percent of the juvenile delinquent youth of the same age (12 to 15 years) and sex (male) were determined to have learning disabilities.²

The empirical evidence of this and previous studies suggests strongly that proportionately more adjudicated delinquent youth than nonadjudicated youth have learning disabilities. While this is not sufficient evidence to justify the conclusion that LD is a cause of JD, the different prevalence estimates indicate that some relationship exists between LD and JD and justify an investigation into the precise nature of the relationship. The current theories linking LD and JD all share a common element; they all postulate various ways in which the LD child eventually tends to engage in delinquent behavior and thus becomes a candidate for adjudication.

The present research concerned itself with children's actual behaviors as well as their adjudicative status. The children in this study were asked to report the frequencies with which they engaged in various delinquent activities. In order to test the hypothesis that LD leads to a greater incidence of delinquent behavior, it was hypothesized that LD children would report greater frequencies of delinquent activities than would not-LD children.

Given the school failure rationale, the behavior of a nonadjudicated, public school sample is particularly relevant to this hypothesis.

METHOD

Sample. The children who participated in this research are referred to herein as public school (PS) children and juvenile delinquent (JD) children. The research sample was composed of 1,005 PS and 687 JD children from the areas of Baltimore, Indianapolis and Phoenix. The PS sample was composed of nonadjudicated males between 12 and 16 years of age. The JD sample was composed of 581 boys and 104 girls between the ages of 12 and 17.³ Table 1 shows the

Insert Table 1 about here

number of children in this research as a function of age and sample.

The JD children had been officially adjudicated delinquent by the juvenile courts. At the time of their selection into the sample, they were either on probation, in training schools, or on parole.⁴ The PS children were chosen randomly from the populations of several public schools in each metropolitan area. The schools were chosen by local school system personnel according to two criteria: to provide a logistically convenient mix of schools from which to sample; and to provide the most heterogeneous sample possible in terms of the students' socioeconomic and ethnic characteristics.

All the institutionalized JD children participated in the research with the consent of the training school superintendents and corrections department officials. For all other children, informed consent was obtained from parents or guardians. All cooperating schools, courts and corrections agencies provided directory information and the means for contacting these persons. For all the JD children listed on the agencies' directories, and for a sample of the PS children, letters were mailed to parents explaining the research and seeking consent for the children's participation. After periods of two to four weeks, parents who had not consented were sent another letter. Telephone calls were made whenever possible to answer questions and encourage consent. Overall, consent was received from approximately 35% of those from whom it was requested.⁵

The distinction between "juvenile delinquent" as an official label and "juvenile delinquent" as a description of one who behaves in a certain manner is very important. Throughout this paper it should be kept in mind that JD refers to children who had been officially adjudicated as delinquent in a juvenile court (including those adjudicated of status offenses). Those in the PS group had not been officially adjudicated, to the best of our knowledge; but they may have nevertheless engaged in any nature or amount of delinquent activity. The most important contribution of this research stems directly from the distinction between these two different meanings of juvenile delinquent, and the relationship of each of them to LD.

Procedures. After obtaining consent from parents, guardians, and institutions, researchers reviewed the children's school and court records. If the presence of learning disabilities could be ruled out with a high degree of certainty, the children completed only a 25-minute interview.⁶ Otherwise, they individually were given a battery of diagnostic tests, including the same 25-minute interview at the end of the battery, in a single session of approximately 3.5 hours. The interview items were read aloud to each child and responses were recorded by the test administrator. The testing and interviewing of the PS youth occurred approximately from April through June, 1977. The testing and interviewing of the JD children occurred approximately from April through September, 1977.

The main portion of the interview given to all the children was a 28-item self-reported delinquency questionnaire, which inquired into how frequently the youth had engaged in certain delinquent activities. Other questions concerned attitudes toward school, social class, and social desirability. The self-report items were adapted from previous research done by the Institute for Juvenile Research (Johnstone, 1976). The items were selected to be representative of a range of seriousness from very low to moderately high, and to include many different types of delinquent acts. The final set of 28 items may be organized conceptually into seven groups of four each, each group representing a different type of offense.⁷

For each of the 28 items, the youth reported how many times they ever had engaged in the behavior and how many times they had engaged in that behavior within the past year. In this paper, attention will be given only to reports of how many times the behavior ever had been engaged in.

Using the self-report items, a Thurstone scaling procedure was employed to measure delinquent behavior. Each item on the scale was rated for its seriousness by an independent group of 12- to 15-year-old children (Zimmerman and Broder, 1978), and each item was assigned a delinquency value that was the mean seriousness rating. In the present study, each child was assigned a delinquency score by adding the seriousness values for all behaviors on the scale in which the child reported having engaged one or more times. The scale's items have a mean seriousness value of 3.01, ranging from 1.47 to 4.31. A child's delinquency score on the scale could range from 0.00 for a child who reported having engaged in none of the listed behaviors, to a score of 84.19 for a child who admitted to having engaged in all of them. The data for any child who had missing information on seven or more of the 28 items were considered too incomplete to develop a meaningful delinquency score. Scores were adjusted proportionately to correct for missing responses when there were missing data for only six or fewer items. Using this convention, three percent of the total sample were not assigned delinquency scores because of missing data.

RESULTS

Using the operational definition of LD specified in Campbell (1978), 18 percent of the public school youth and 33 percent of the adjudicated delinquent youth in this sample are classified as learning disabled ($Z=6.66$, $p<.01$). Within the JD sample, 34 percent of the boys and 24 percent of the girls are classified as LD. The difference in prevalences between boys and girls in these samples is significant statistically ($Z=2.20$, $p<.05$), but is not of the magnitude commonly thought to exist (e.g., see Murray, 1976). It should be noted, however, that girls who are adjudicated delinquents are probably not representative of girls in the general population; the difference in LD prevalence between JD boys and girls is not likely to be the same as the difference in prevalence between nondelinquent boys and girls.

The disproportionate number of LD youth in the sample of adjudicated delinquent youth suggests the hypothesis that LD children may engage in more delinquent activities than not-LD children. The self-report data can be used to test that hypothesis. Table 2 shows the seven offense categories to which

Insert Table 2 about here

the children responded. The tabled values are the percents of children who admit to having ever engaged in one or more of the four acts in each category. The upper portion of the table shows

that JD children admit to more involvement than do PS children in behavior from every category. Given the sample sizes, a difference of five percent or more between the JD and PS children is significant statistically. In all categories, for both PS and JD children, involvement in delinquent activities is highly similar for LD and not-LD youth. If the school failure hypothesis were accurate, LD children in the PS group should report that they engage in more delinquent activity than not-LD children. Within that group, however, the percent of LD children engaging in delinquent activities exceeds the percent of not-LD children engaging in such activities in only one of the seven categories, and then only by one percent; in fact, the percent of LD children is less than the percent of not-LD children in the first four categories. This table indicates no evidence of differences in delinquent activities engaged in by LD and not-LD youth.

9

The lower portion of Table 2 shows comparisons of LD and not-LD males and females within the JD sample. Overall, boys and girls report similar types of activities, with slightly more boys reporting activities in the categories labeled automobile and criminal offenses. Again, there are no important differences between LD and not-LD children with regard to delinquent involvement. Statistically, the LD vs. not-LD differences reported by both males and females all fail to reach levels of significance (highest $Z=1.49$, $p > .05$).

Using the Thurstone procedure described above, each child was given a single score to index his or her delinquent behavior. This score takes into account both the number of different behaviors that a child reports and the relative seriousness of the behaviors. The results of this scaling are reported in Table 3 and they lead to the

Insert Table 3 about here

same conclusions that were drawn from Table 2. The JD children's delinquency scores ($\bar{x}=40.44$) are significantly higher than those of the PS children ($\bar{x}=16.43$). There is no main effect due to LD, however, and no interaction between the two variables. Thus, JD children report behavior that is more delinquent than PS children do; but within either sample, LD children do not report delinquent behavior any different from that of not-LD children. Likewise, Table 3 reinforces the conclusions drawn from Table 2 regarding male and female JDs. Male JDs report more delinquent activity ($\bar{x}=41.13$) than do female JDs ($\bar{x}=36.13$). Again, however, neither the effect of the LD variable nor of the interaction between sex and LD is significant statistically.

During the interview, children also were asked whether they ever had been "picked up" by the police. This question is most important, of course, with regard to the public school sample; all of the JD children have come into contact with the police in some way. Responses to this question were received from 98 percent of

the PS sample; 34 percent of the LD children and 27 percent of the not-LD children (28 percent, overall) report having been picked up by the police. Although a greater percent of LD children report having been picked up, the difference fails to reach statistical significance ($Z=1.78$, $p > .05$).

It would be logical to suppose that children who report having been picked up by the police would have higher delinquency scores than those who reportedly have not been picked up. But, is it possible that LD children who are picked up by police have behaved differently from not-LD children who are picked up? The results of an analysis to explore this issue are summarized in Table 4.¹⁰

Insert Table 4 about here

As expected, children who are picked up by police engage in more delinquent behavior ($\bar{x}=24.28$) than children who are not ($\bar{x}=14.54$). There is no effect of LD, however, and no effect of the interaction of the two variables. There is no evidence that the level of misbehavior associated with an LD child being picked up by police is different from that for a not-LD child.

During the reviews of the JD youths' records, notations were made of the most recent offenses for which they were convicted. These data were recorded for 95 percent of the JD sample. Offenses were coded to make the categories as comparable as possible to the offense categories used with the self-report items.¹¹ The

percents of children who were adjudicated for offenses in each of the categories are displayed in Table 5. These data show that the

Insert Table 5 about here

patterns of offenses for which LD and not-LD children were adjudicated are highly similar. Within the male and female samples, rank order correlations between the LD and not-LD percentages are essentially perfect. The only differences worthy of note in the table are those between males and females in the status offense and criminal offense categories: many more girls are adjudicated for status offenses, while many more boys are adjudicated for criminal offenses.¹²

DISCUSSION

The results of this research show that there are proportionately more learning-disabled children among a sample of officially adjudicated juvenile delinquents than among a sample of nonadjudicated public school children. But, the self-reported delinquency data suggest that LD and not-LD children engage in the same types and amounts of delinquent activities. Furthermore, the data suggest that LD and not-LD children within a public school sample are picked up by police at approximately the same rate; and children who are picked up by police tend to be those who have engaged in more serious delinquent activities. Those children who

are adjudicated delinquents tend to be convicted of the same types of offenses regardless of whether they are LD or not.

The school failure hypothesis and the susceptibility hypothesis both purport to explain why LD children are more likely to engage in delinquent activities than not-LD children are. These data do not support these commonly advocated hypotheses about the LD/JD link. If it is accepted that LD and not-LD children engage in the same delinquent behaviors, then neither the school failure hypothesis, the susceptibility hypothesis, nor any other hypotheses that propose differences in LD children's delinquent behaviors are supported by the data.

The Different Treatment Hypothesis. If there is a greater prevalence of learning disabilities among adjudicated juvenile delinquents than among public school children, and if it is accepted that LD and not-LD children behave comparably, then an alternative hypothesis to school failure and susceptibility should be proposed concerning the relationship between LD and JD. We propose the "different treatment" rationale as a general hypothesis that is consistent with the above data to explain the link between learning disabilities and juvenile delinquency. It is proposed that LD and not-LD children engage in the same behaviors but that one or more elements of the juvenile justice system treat LD children differently from not-LD children. It is possible that the differential treatment results from evidence of the child's failure in school, from a reaction to something about the child himself, or

both, which is in line with the thinking that suggested the school failure and susceptibility rationales. The different treatment hypothesis, however, asserts that the LD child is treated differently, for whatever reason, for the same delinquent behavior.

The specific locus of this differential treatment within the juvenile justice system cannot be identified with certainty from the present data, although some tentative observations can be made. The self-report data suggest that LD children are picked up by police as frequently as not-LD children. Thus, the greater representation of LD children among the JD population apparently does not result from a greater incidence of detection and arrest. By making an arrest and interrogating a suspect, however, the police may solve the crime for which an arrest was made as well as a number of other previously unsolved crimes. If LD children commit a greater number of crimes than not-LD children do, an idea which is not supported by the self-report data, or if LD children confess to more crimes than not-LD children do, it is possible that more charges are brought against them. This could lead to a greater conviction rate and account (at least in part) for the differential-prevalence findings. The present data do not allow a direct test of this hypothesis. The data show that LD and not-LD children are convicted for roughly equivalent offenses. They do not show, however, whether the child was charged with that crime or with a lesser included offense. There is no information about charges on which the child was acquitted or on charges dropped. Thus, although it appears

unlikely based upon the present data, it remains possible that different treatment stems from the child's interaction with the police.

Other possibilities for different treatment can be suggested; but again, there is little direct evidence to support them at this time. Different treatment for LD offenders may stem from the prosecutor, who decides what cases to prosecute and on what charges; from the probation officer by his recommendations to the court; or from the judge or jury by their reactions to the child during trial and adjudication. Finally, of course, different treatment may be the result of an independent or interactive sum of all these factors.

Whatever the locus of the effect in the juvenile justice system, the different treatment results from something about the LD child that makes him or her different from a not-LD child, other than a difference in delinquent behavior. While failing to conform to the present data showing comparable delinquent behaviors, the school failure and susceptibility rationales suggest some possible mechanisms that might lead to differential treatment within the system.

The LD child's disability may make him susceptible to a greater likelihood of adjudication because the child is not as able to represent his or her own case to the court. Learning-disabled children have difficulty using language and communicating clearly. They may have difficulties in working with abstract ideas, like innocence and guilt, in logical reasoning, and in anticipating the

consequences of their own actions. Thus, the child may not communicate well with justice system actors like police, prosecutors, and judges. At least one judge has suggested that this may occur: "Most children can tell us what happened to them. But frequently, a learning-disabled child can't. . . . I have some concern that we have not been able adequately to protect the learning-disabled child because of his inability to tell us what has happened" (Lewis, 1978, p. 59).

The decision to adjudicate a youth as delinquent, to initiate formal state intervention in his or her development, is one that clearly is made with great consideration and with many factors taken into account. Nonetheless, the adjudication decision may include many subjective factors and may be based upon considerations other than the delinquent behaviors in which the child has engaged. One researcher reports, for example:

I've been on the road to delinquency myself. . . . I was in a gang of kids and got busted several times. Whenever I'd go to court, this judge. . . would always look at me and sort of give me one of these "this-schlemiel-couldn't-possibly-hurt-anybody" looks. I guess it's because I was so roly-poly as a teenager that he would give me a lecture and send me home. He wouldn't always do the same with my friends. Some of my friends are still in jail, some are dead, and a few have made it one way or another. That was one of the kinds of things that first made me begin to question what was going on in this system we call the juvenile justice system. I couldn't understand why I was being treated differently just because I was roly-poly. (Berman, 1978, p. 33).

In the attempt to do justice, judges look beyond the child's behavior and try to assess what is in the child's best interest. LD children are different from other children in many ways, often

readily observable. For example, it is noted frequently that LD children are physically clumsy (Richardson, 1978), and it is likely that police, prosecutors, and judges react to a child's personal characteristics in making decisions about him or her. Thus, if LD children have characteristics different from not-LD children, these may be the factors that mediate the juvenile justice system's differential treatment. Given a particular behavior, some children will be adjudicated delinquent and others will not.

Difficulties in school also may play a significant role in the adjudication of LD children. Among the major factors considered in determining how to dispose of a child's case, performance in school must weigh particularly heavy. Much of the information a judge receives about a child comes from school authorities and school records, and relates directly to the child's ability to succeed as a student. One judge, discussing the relationship between learning problems and juvenile delinquency, offered the following reflections:

For some reason the schools seemed anxious to get rid of the disrupters, and the implication (and sometimes a flat statement) given to the judge is that the juveniles are too dumb or stupid or lazy to learn. . . . Some of the comments by probation officers and social caseworkers were recalled: "This kid is plenty smart, but no one can motivate him;" or "He seems intelligent enough, but he reads and writes like a third grader instead of a ninth grader." (Holte, 1972)

From this, it seems reasonable to speculate that a learning disabled child may be treated differently during the adjudication process.

The LD child brings with him or her a record of school problems and low grades, and a history of frustrating the well-intentioned but

unsuccessful efforts of the educational system. Assuming that input from school personnel and information about school performance are important elements that may enter into an adjudication decision, the LD child's poor performance in school may work against him or her in the juvenile court. Is it possible that LD children are sentenced in court not because of what they did on the streets but because of what they could not do in the classroom?

Some evidence in the current study is relevant to this question. Figure 1 shows the proportions of LD children in the JD

Insert Figure 1 about here

and PS samples as a function of age. The lines on the figure are best-fit trend lines, weighting each point by the number of children at the particular age. Data in this figure are for male JDs only for greatest comparability to the all-male PS group, although the JD results would be essentially the same if females were included as well. The striking interaction seen in these data suggests that LD children are more likely than not-LD children to be adjudicated delinquent at an early age. A judge or court intake officer may be very likely to divert a child of 12 or 13 from formal adjudication if the child's school record looks promising. This would tend to favor not-LD children. By ages 16 and 17, children are not required to remain in school. At these ages, then, the school data may be less influential in judicial decisions.

Alternatively, the data in Figure 1 could be explained if it were true that LD children are more likely to engage in delinquent behavior at earlier ages than not-LD children. If not-LD children then engaged in more delinquent behavior at later ages, summed across age, this would result in the overall finding of no difference between LD and not-LD children as has been reported above. This possibility is addressed, and disconfirmed, by the data displayed in Figure 2. In Figure 2, self-reported delinquency is

Insert Figure 2 about here

shown as a function of age and LD for both the PS and JD samples. Again, the JD data are for boys only, and the lines are best-fit trend lines with each point weighted by the number of children at that age. From these data, it is clear the JDs report more delinquent activity than PS youth, that delinquent activity increases with age, and that there is virtually no difference between LD and not-LD children in their levels of delinquent behavior.¹³ Thus, based upon self-reported delinquent behavior, there is no reason why LD children should be adjudicated delinquents any more than not-LD children, or adjudicated differently with respect to age.

Conclusions. A growing body of evidence tends to indicate that there are more learning disabled children among officially adjudicated juvenile delinquents than there are in the population as

a whole. Based upon their reported involvement in delinquent behavior, however, it does not appear as though LD children behave differently than not-LD children.

We have suggested the different treatment rationale to explain these findings by proposing that as a result of something about LD children, other than differences in delinquent behaviors, one or more elements of the juvenile justice system treat LD children differently from not-LD children. It should be noted that the different treatment rationale is offered as a hypothesis, not as a conclusion. Although the hypothesis conforms to the present research data, this research is not a direct test of whether or not LD and not-LD children are treated differently within the juvenile justice system.

The contention that the link between learning disabilities and juvenile delinquency is systemic in character, and may have little to do with a child's delinquent behavior, is not without some precedent in the thinking of social scientists. For example, Ryan (1972) argues that social interventions typically are designed in a manner that places blame on a victim for a problem that is systemic in nature. At a more philosophical level, B.F. Skinner (1972) has advocated the dominant effect of the environment on the person. He states that, "Young people drop out of school, refuse to get jobs, and associate only with others of their own age not because they feel alienated but because of defective social environments in homes, schools, factories and elsewhere" (p. 15). He warns against

placing the major burden for a problem on the troubled individual, as is done implicitly by the school failure and susceptibility rationales for the LD/JD link. In Skinner's words, "We can see what organisms do to the world around them, as they take from it what they need and ward off its dangers, but it is much harder to see what the world does to them" (p. 17).

Although the different treatment hypothesis is not directly tested by current data and remains far from being confirmed empirically, it is consistent with data presented in this and other papers that examine the link between learning disabilities and juvenile delinquency. That tired, old ending is once again the most appropriate one for this paper — further research is needed. The issue is clearly an important one to pursue, however. Thus far, the data suggest that we heed carefully the words of Judge Lewis: "My concern and that of many judges is that a child with learning disabilities may not be receiving from us all the constitutional guarantees to which he may be entitled" (Lewis, 1978, p. 58).

FOOTNOTES

¹The first phase of the project terminated on August 31, 1978. A two-year continuation of the project is being administered by the National Center for State Courts. Educational Testing Service is performing diagnostic work and a construct validation under contract to the National Center for State Courts.

²Further information about the prevalence estimates is being prepared for publication in another paper. Questions about this aspect of the research may be addressed to Paul B. Campbell, Educational Testing Service, Princeton, NJ 08540. Copies of the presentation are available from the National Criminal Justice Reference Service, Box 6000, Rockville, MD 20850 (Access No. NCJ-46416).

³The sexes of two children in the study were not recorded. Originally, the PS and JD samples were to have been similar in age and sex. Another component of this research project, a treatment program for selected LD delinquents, necessitated the identification of a minimum number of JD youth who were classified LD. To fulfill this need, the JD sample was enlarged by adding females, and children who were 17 years old.

The sample represented in this report differs from the sample reported about by Campbell (1978). Campbell's report included only the male delinquents who were the same age as the public school sample. Furthermore, the operational definition used in this study is identical to Campbell's; however, the present sample was

subjected to more stringent screenings to eliminate those children who were identified as having physical handicaps that would impair their learning, e.g., blindness and hearing loss, those whose primary language was not English, and those whose primary difficulties were identified as severe emotional disturbances or mental retardation. Because of the more stringent screenings and the differences between the present sample and that reported about by Campbell, the LD prevalences reported in the two papers differ from one another by up to two percent.

⁴Because of the nature of the definition used in this study, some children had been adjudicated as children in need of supervision (CHINS), which is different from probation. Due to the way the information was coded, however, our data do not allow a differentiation of these two groups.

⁵A detailed account of the procedures for and accompanying difficulties in obtaining informed consent and protecting the rights and privacy of individual subjects in this research may be found in Greguras, Zimmerman, and Broder (1978), available from the authors.

⁶The exact decision rules for screening out such cases are documented in Campbell's presentation (see Note 3), as are the complete decision rules for classifying LD from the testing results. Copies of the complete interview guide may be obtained from the authors.

⁷For more information about the self-report scale, refer to Zimmerman and Broder (1978, currently being reviewed for publication and available from the authors). This paper lists important scaling

information about the items, examines the scale's reliability and validity, and discusses the delinquency measure that is used in the present paper.

⁸This scaling procedure does not take into account the frequency with which a child engages in any delinquent act. Thus, for example, a child who has been drunk once in his life is treated the same as one who gets drunk regularly. Another measure of delinquency, based upon differential frequencies of behavior, was calculated for these children. Within the PS sample, the measure reported in this paper correlated almost perfectly with the frequency-based measure (.92). The correlation was similar within the JD sample (.90). It was concluded from these correlations that either measure was as good as the other, and the use of both was unnecessary. Distinguishing between one-time offenders and frequent offenders yielded no additional insights.

⁹Alternatively, of course, one can question the validity of the self-report scale. Previous research with self-report scales in general, and this scale in particular, however, have shown the scales to be reliable and valid (see Broder and Zimmerman, 1978, for discussion and further references). Because the scales are sensitive to differences among subjects as expected on some variables (e.g., sex, birth order, age, JD vs. PS), it is parsimonious to assume that they also are valid with regard to comparisons of LD and not-LD children. An important consideration is that LD children may reliably make differential types of errors

in reporting absolute frequencies of behaviors, due to their disabilities. All the data reported in this paper, however, are built around distinctions between "have-ever-done" and "have-never-done" -- frequencies of behavior greater than one are not considered. Similarly, although LD children may have problems reporting behaviors within certain time frames, the questions used have no specific time frames attached. These approaches to the data should have minimized differential response difficulties that would be threats to the validity of data received from LD children.

¹⁰The slight differences in means reported in Tables 3 and 4 are due to exclusions in Table 4 of children for whom no response was received regarding whether or not they had been picked up by police.

¹¹The following coding was used for adjudication offenses:

Status -- truancy, runaway, curfew violation, incorrigible youth;

Miscellaneous -- disorderly conduct, petty theft, carrying burglary tools, shoplifting, possession of stolen goods, malicious mischief, vandalism, loitering, statutory rape, prostitution;

Alcohol -- possession, drunk;

Drugs -- possession, use, or sale of marijuana, narcotics, inhalants, or dangerous drugs;

Automobile -- joyriding, tampering, theft from auto (but not auto theft);

Criminal — breaking and entering, strong-arm robbery, theft, fraud, forgery, arson, larceny;

Violent — forcible rape, murder, kidnapping, assault, battery, aggravated assault, carrying a weapon.

¹²The analyses presented in this paper are, in many ways, only preliminary. The data base contains information about other variables such as social class, IQ, cities, and so on. The interrelations of all these variables with the factors of LD and self-reported delinquency will be the subject of more comprehensive analyses performed during the research continuation period.

¹³An earlier report based on this research presented a similar analysis in which there was an indication of an interaction of age and LD (Broder, Peters, & Zimmerman, 1978). The difference in the findings is due to the fact that the earlier data were based upon clinical LD classifications, rather than on the more systematic, computerized classifications used in this report.

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TABLE 1
NUMBER OF CHILDREN IN THE SAMPLES
AS A FUNCTION OF AGE

<u>Sample</u>	Age						Total
	12	13	14	15	16	17	
Public School	161	281	328	214	18	0	1,002
Juvenile Delinquent	19	76	145	214	183	44	681
Total	180	357	473	428	201	44	1,683

Note — The ages of 3 public school and 6 juvenile delinquent children were not recorded.

TABLE 2

PERCENT OF CHILDREN REPORTING ANY
BEHAVIOR IN EACH OFFENSE CATEGORY

<u>Offenses</u>	<u>Public School</u>		<u>Juvenile Delinquent</u>	
	<u>LD</u>	<u>Not LD</u>	<u>LD</u>	<u>Not LD</u>
Status	83	86	95	96
Miscellaneous	63	72	88	88
Alcohol	64	73	85	87
Drug	20	23	72	69
Automobile	25	25	68	69
Criminal	18	18	80	74
Violent	50	49	77	78
Mean	46	49	81	80

	<u>JD Male</u>		<u>JD Female</u>	
	<u>LD</u>	<u>Not LD</u>	<u>LD</u>	<u>Not LD</u>
Status	96	96	88	97
Miscellaneous	88	89	88	84
Alcohol	85	88	83	84
Drug	72	68	71	75
Automobile	69	72	67	51
Criminal	83	77	58	58
Violent	77	80	79	70
Mean	81	81	76	74

TABLE 3

DELINQUENT BEHAVIOR AS A FUNCTION
OF SAMPLE, SEX, AND LD

	Public School		Juvenile Delinquent	
	LD	Not LD	LD	Not LD
Mean	15.59	16.63	40.34	40.39
Standard Deviation	12.03	12.71	18.57	19.53

ANOVA SUMMARY

<u>Source</u>	<u>D.F.</u>	<u>F</u>	
Sample (S)	1,1608	894.44	(<u>p</u> < .01)
LD	1,1608	.36	NS
S x LD	1,1608	.29	NS

	JD Male		JD Female	
	LD	Not LD	LD	Not LD
Mean	40.53	41.44	38.78	35.26
Standard Deviation	18.56	19.45	18.97	19.26

ANOVA SUMMARY

<u>Source</u>	<u>D.F.</u>	<u>F</u>	
Sex (S)	1,642	5.71	(<u>p</u> < .05)
LD	1,642	.05	NS
S x LD	1,642	.84	NS

TABLE 4

DELINQUENT BEHAVIOR AS A FUNCTION OF LD AND
SELF-REPORTED POLICE PICKUP FOR PUBLIC SCHOOL SAMPLE

Picked up by Police			
	<u>Yes</u>	<u>No</u>	<u>Mean</u>
LD	21.40	12.76	15.67
Not LD	25.11	13.55	16.62
Mean	24.28	14.54	16.44

ANOVA SUMMARY

<u>Source</u>	<u>D.F.</u>	<u>F</u>	
Police Pickup (P)	1,956	171.67	($p < .01$)
LD	1,956	3.21	NS
P x LD	1,956	1.99	NS

TABLE 5

PERCENT OF ADJUDICATED DELINQUENTS
IN EACH CHARGE CATEGORY

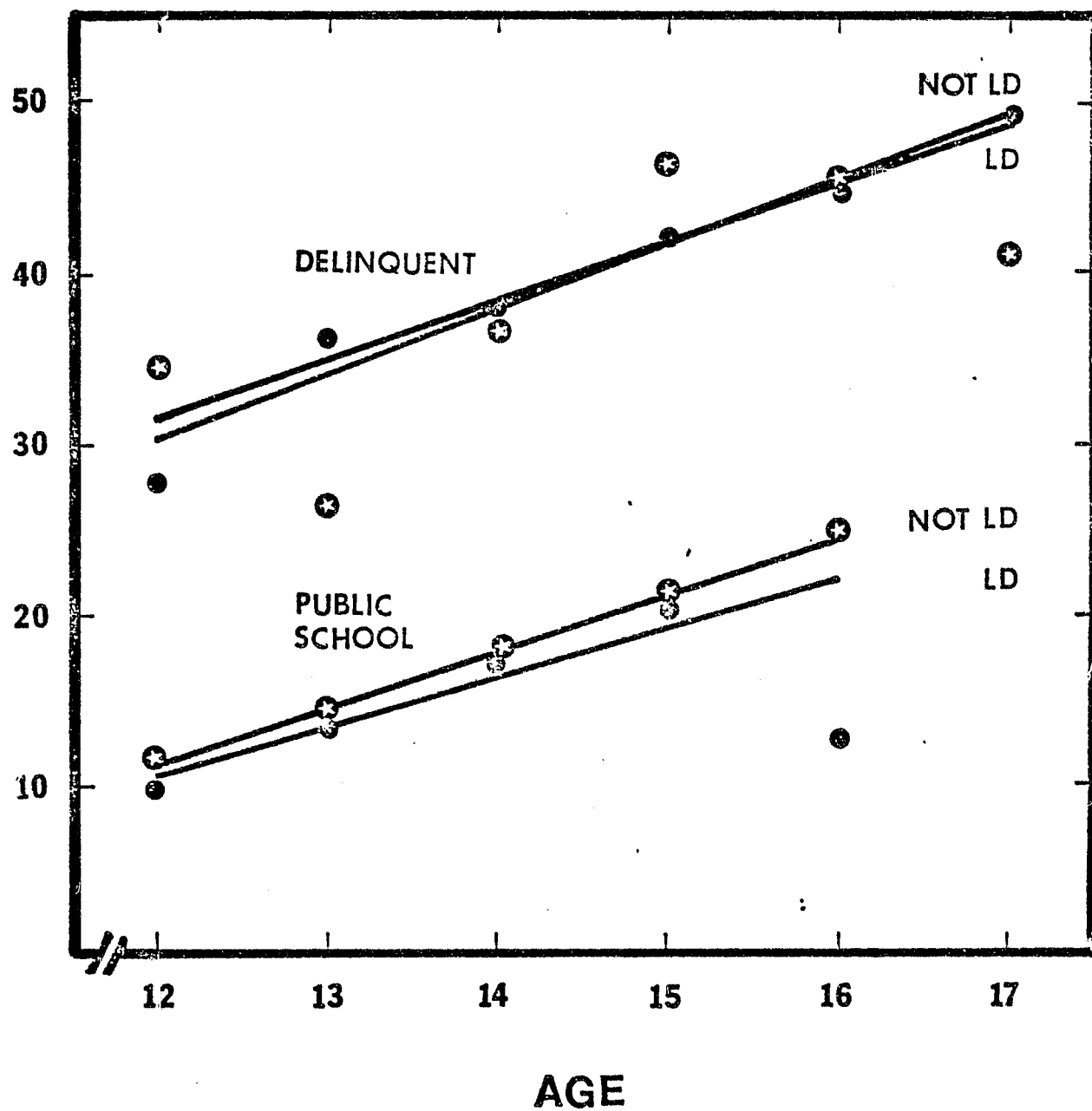
<u>Offense</u>	<u>Total</u>		<u>Male</u>		<u>Female</u>	
	<u>LD</u>	<u>Not LD</u>	<u>LD</u>	<u>Not LD</u>	<u>LD</u>	<u>Not LD</u>
Status	36	35	30	28	78	69
Miscellaneous	33	30	33	31	30	26
Alcohol	3	1	3	2	0	0
Drug	6	4	6	4	4	1
Automobile	8	6	9	7	4	3
Criminal	38	46	42	51	9	20
Violent	15	16	16	18	4	6

FIGURE CAPTIONS

Figure 1. Proportion of learning disabled children in the public school and juvenile delinquent samples as a function of age.

Figure 2. Self-reported delinquent behavior as a function of age, sample, and learning disabilities.

DELINQUENT BEHAVIOR



PERCENT LD

50

40

30

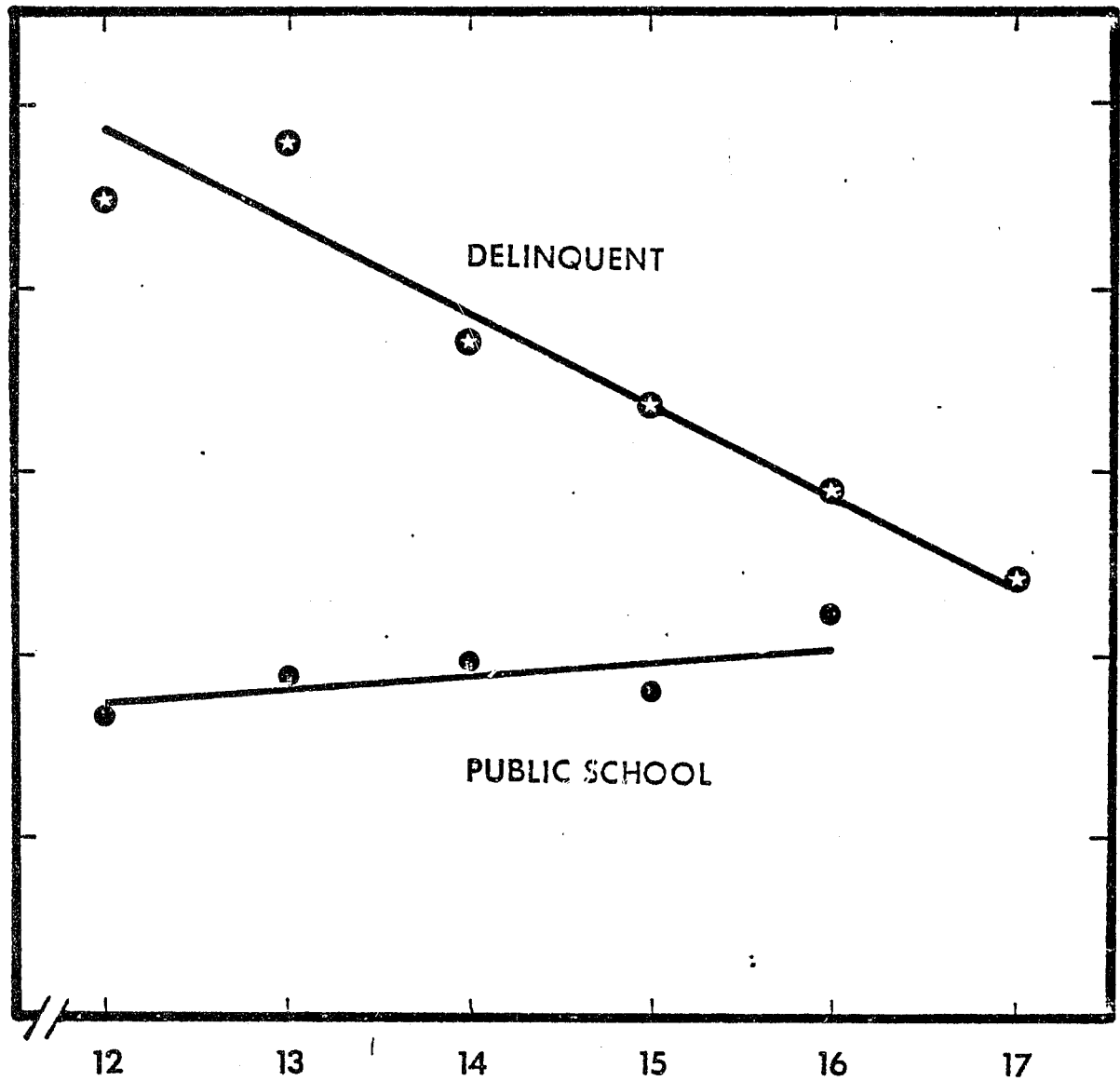
20

10

DELINQUENT

PUBLIC SCHOOL

AGE



END