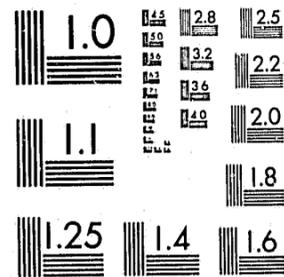


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**HIGH RISK EARLY BEHAVIORS  
INDICATING VULNERABILITY  
TO DELINQUENCY IN THE  
COMMUNITY AND SCHOOL**

**A 15-YEAR LONGITUDINAL STUDY**

Office of Juvenile Justice and  
Delinquency Prevention  
(NIJJDP)  
Grant Number 76-JN-99-0024  
78-JN-Ax-0033

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**September, 1983**

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to Delinquency in the Community and School

A 15-Year Longitudinal Study

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INTRODUCTION

The present paper reports on findings from a larger parent 13-year longitudinal study, the major purpose of the latter being to identify high risk early signs that a youngster, already a member of a broader high risk urban group, is further at risk for delinquency and its related academic and emotional problems during his life time. The parent study cohort of 660 children were selected at random from center city Philadelphia kindergarten in the fall of 1968, and a broad range of information has been collected on them since then, including data on delinquency and misconduct, academic performance, special placement, emotional well-being, drug use, and overall behavioral adjustment to the school environment throughout the years. The average age of the cohort at the time of this writing is 19.

The purpose of the present paper is to address the question of whether behavior patterns emerging in school during kindergarten and the primary school years which indicate the ability of the child to adapt to the school environment, discriminate children who may be at risk for subsequent delinquency and misconduct both in school and community. By ability to adapt is meant the child's ability to control and regulate his/her own behavior and thinking, ability to attend and work independently, and ability to comprehend and become involved in the learning process.

Implicit in this question is the assumption that early ability to adapt or cope with life tasks and interpersonal demands (e.g. at school) is prognostic of later life failure in a variety of areas. Discovery of early signs of poor coping that have both predictive and explanatory power would substantially aid those concerned with initiating preventive efforts, as well as those interested in a variety of developmental questions.

BACKGROUND

Prediction of adjustment and school success from early adjustment levels in school.

Two studies have attempted to relate behavioral adjustment in nursery school to subsequent adaptive functioning. Westman, Rice, and Bergmann (1967) had clinicians make a variety of ratings using 130 nursery school records, seeking evidence in these about the child's relations with teacher and peers, and signs of "immaturity" or "eccentricity." While no one index related to later measures of adjustment, a combined index did relate significantly. They concluded that the nursery school "...is a strategic outpost of mental health screening and intervention." (p. 731). In a similar study, Chamberlain and Nader (1971) made overall adjustment ratings of 40 nursery school children based on perusal of teacher records. While too few cases were involved for detailed statistical analysis, these ratings significantly related to adjustment through the elementary school years. Neither study could specify what specific behaviors had predictive significance.

Tseng and Sonstegard (1971) had professionals observe the classroom behavior of kindergarten children, and make ratings on 17 behavioral attributes. They discovered that some attributes significantly related to subsequent academic achievement up to 10th grade. More recently, Perry, Guidebaldi, and Kehle (1979) found teacher ratings of disruptiveness/conformity in kindergarten to predict third grade achievement, and that teacher ratings of peer acceptance, school interest and academic activity were as strong predictors of achievement as early academic achievement

and IQ.

Baker and Holzworth (1961) did a retrospective study of 71 children hospitalized during adolescence. They found that 66% had exhibited school problems in the first two grades. Glavin (1972) has provided evidence of the persistence of less severe behavioral problems. Children "nominated" as poorly adjusted in primary grades tended to be so classified three years later.

Perhaps the most extensive longitudinal study of maladjustment in the school setting has been carried out by Cowen, Zax, and their coworkers (Cowen, Zax, Izzo, and Trost, 1966; Zax, Cowen, and Rappaport, 1968; Cowen, Pederson, Babigran, and Izzo, 1973). As part of a larger school intervention study, a group of children were "red tagged" in first grade as at risk, employing a wide variety of measures. These youngsters, when in third and then seventh grades, were found to be doing less well academically and exhibiting signs of emotional disturbance. Eleven to 13 years later, it was discovered that significantly more had come into contact with mental health agencies. The authors have repeatedly emphasized the need to streamline and simplify their early identification process, and the need to identify the specific signs that early indicate high risk. Zax, et al (1968) make the point of how necessary it is to develop early information that leads to preventive action.

Kellan, S. G., Ensminger, and Simon (1980) have reported on the predictive significance of teacher rated behavioral signs in the first grade for subsequent life adjustment among urban children from poor families. They report that for both sexes first graders rated as more aggressive were more likely 10 years later to report more drug use, and the males more aggressiveness, law-breaking, and absence

of feeling of well-being.

Prediction of delinquency from prior non-delinquent events

Most well-known in this area is the work of the Gluecks, and attempts to validate the Glueck Social Prediction Table (Glueck and Glueck, 1950), which employs mostly parental childrearing and parent-child "home" variables. All of these studies have been retrospective, often involving a reanalysis of previous data, (e.g., Glueck, 1962; 1963). One exception to this is the study by the New York City Youth Board (1956) which applied the table in a delinquency-prone neighborhood to youngsters age 6, with a followup 8 years later. Some predictive power was revealed, although difficulty employing the table was noted. Glueck (1966) has suggested it may be possible to predict delinquency at age 2 or 3 by supplementing the SPT with added measures of restlessness, resistance to authority, and destructiveness, noting however that it might be difficult to reliably obtain such information.

Hampton (1969) developed an MMPI type measure through which a mother could supply answers about her 10 to 12 year old child's behavior as well as parental behaviors: The Personality Inventory for Children (PIC). Significant predictive power to 6-8 years later was revealed, even though Hathaway and Monachesi (1963) previously had found no predictive success employing the standard MMPI scales and some newly devised scales. Gibson and West (1970) studied boys when they were 8 and 9, following them up 5 to 6 years later. They discovered that socio-economic status and intelligence related to subsequent delinquent behavior independently.

Few studies have attempted to predict delinquency from specific prior classroom behavior even though studies have suggested teachers

may be very good predictors of delinquency in children (see Venezia, 1971). Farrington and West (1971) found that teacher judged behavior at ages 8 and 9 related to delinquency at age 14-15. "In present study, the best available measure of misconduct at an early age was provided by class teacher's response to a questionnaire seeking their observations on the behavior of the boys in their class." (p. 344) Feldhusen and Benning (1972) employed a battery of procedures when youngsters were in grades 3, 6, and 9, to predict delinquency and level of adjustment 5 years later. They concluded that teacher judgments of children were the best predictor variables.

Perhaps the most extensive study relating early (first grade) school performance and adjustment to later (adolescent) delinquent behavior is that of Kellam, Ensminger and Simon (1980) noted earlier. From teacher ratings, children were classified as aggressive, shy-aggressive or shy, and 10 years later interviewed about their delinquent behaviors (e.g. thefts, assaultiveness, and vandalism). Among males only, those classified as aggressive or shy-aggressive later self-reported more delinquent behavior than males classified in the first grade as shy or well-adjusted.

The Kellam, et al findings indicating that early childhood aggressiveness is a high risk sign for later delinquent behaviors is consistent with findings of others. Roff (1961) studied the relationship between childhood symptoms in a clinic cohort to later adaptation in the armed services. Cases described by teachers as excessively aggressive, dominating, blaming of others, and prone to tantrums were significantly more likely in service years later to go AWOL and exhibit rule violations and bad conduct than clinic cases manifesting other symptoms. Robins (1966) has reported similar findings: clinic

children of both sexes manifesting "anti-social" behaviors were more likely than other clinic cases to manifest later in life "sociopathic" behaviors, as well as hysterical and alcoholism problems. Robins (1971) has also reported that this relationship between childhood anti-social behavior and adult diagnosis is especially strong among Black males. Two longitudinal studies in England (Douglas, Ross, Hammond and Mulligan, 1966; Mulligan, Douglas, Hammond, and Tizard, 1963) have also reported that preadolescent antisocial and aggressive behaviors are evidenced in the histories of boys who later become delinquent. Kramer and Loney (1978) discovered this relationship between pre-adolescent aggressiveness and adolescent delinquency in a sample of boys manifesting hyperactivity during preadolescence. They discovered that adolescent delinquent behavior was related to pre-adolescent aggressiveness but not degree of hyperactivity.

Finally, two other studies are worthy of note, for although the results do not pertain directly to delinquency or misconduct, they suggest a relationship between aggressiveness in young children and indices of poor inner control of direct relevance to the current study. In the first, Rubin and Krus (1974) examined the relationship between teacher rated poor self-control and acting out in the first grade, to fourth grade similar behavior as well as measures of behavior and attitude problems, and need for special services. The results indicated consistency in poor self control behaviors over the three-year period, and a significant relationship between poor control in first grade and subsequent problems as well as need for special services. First grade teacher ratings of anxious or neurotic behaviors had no predictive power, consistent with other data indicating little prognostic significance for early childhood signs of introversion

(e.g. Michael, 1955) or withdrawness (Morris, Soroker, and Burruss, 1954).

The second study (Ledingham, 1981) examined the relationship between aggressive behaviors and ratings of the specific classroom behaviors employed in the present study. These data indicated that aggressive children tended to manifest classroom disturbance, impatience, disrespect-defiance, external blaming and irrelevant responsiveness, behaviors previously identified as reflecting poor self-regulating capacity among children (see Spivack, Cianci, Quercetti, and Bogaslav, 1980). This relationship between aggressiveness and other behaviors helps to specify the meaning of aggressiveness in children by suggesting the underlying processes that may bode ill for chances of effective adjustment in later years, especially chances that the developing individual may cope effectively, succeed in the life tasks society defined, and live within the rules prescribed by the community.

#### Delinquency theory and early ability to cope as a sign of high risk

In the main, delinquency theory has not directed itself toward identification of potential early high risk signs as reflected in the child's inability to cope, and the specific forms this inability may take. Early longitudinal studies (e.g. Ferguson, 1952; West, 1969; West and Farrington, 1973, 1977; Wolfgang, Figlio, and Sellin, 1972) have specified the association of delinquency with low socio-economic level, race, unstable parents, poor academic achievement, lower than expected IQ, and school drop-out. During the mid 1950's through the mid 1960's, subculture theories dominated the scene, but these sociological approaches, implicating cultural processes of conformity, value reflection, and cultural strain or

frustration, viewed delinquency as a solution to a problem with no implication of association with inability to cope or insufficiency in social competency. The same is true of subsequent theories of labeling, social control, and social deviance, (see McCartney, 1974).

At the other end of the spectrum is the research and theorizing of Mednick and his colleagues (e.g. Mednick and Christiansen, 1977; Mednick, 1979). Mednick provides evidence in support of the notion that delinquent behavior reflects a deficiency in inhibition capacity, such deficiency supposedly blocking the developing child's ability to use punishment experience in a fashion that would (through learning) inhibit antisocial behavior. Mednick traces this deficiency to a slow autonomic nervous system recovery rate, the latter in turn being an inherited quality. While perhaps narrow in its potential explanatory power, Mednick's notions do have direct and broader implications for the child's developing capacity to cope, although these are not noted.

More recently, Hawkins and Weis (1980) have attempted to integrate control theory (e.g. Hirschi, 1969; Hindelang, 1976) and a social learning approach into a broad social development model of relevance to delinquency prevention. The model proposes a sequence of variables/circumstances which begin with the child's attachment to parents, subsequent commitment and attachment to school and the moral order (including the law), subsequent (or accompanying) exposure to peers, ending finally at the behavioral level. The more a child becomes positively attached to parents, the more likely he is said to become committed and attached to school and societal order. The more this occurs, the less likely the child will become involved

with delinquent peers and acts. The model provides a very practical guide for certain preventive efforts, and has implicit in it the capacity of the child to deal or cope with his environment, given all the elements required to "bond" the child to conventional society. The implication is that the child will "learn" conventional behavior, but left untouched are issues that determine how well (or not well) attachments take place, or the ability of the child to do what he must do to be acceptable.

Elliott and Voss (1974) have proposed a model of the relationship between schooling and delinquency that attempts to integrate some elements of coping ability and quality, with beliefs and exposure to delinquency. Failure to achieve valued goals (e.g. academic success), if it leads to external blaming, may cause a sense of normlessness which, when accompanied by exposure to delinquent influences will lead to delinquent acts. Academic failure, then, in a child who copes with it by blaming others or circumstances, would suggest early high risk events when they occur in combination, especially if followed by insufficient inner standards, and exposure to others who are delinquent.

Farnsworth (1982) has provided further evidence of relevance to the issue of the relationship between early school experience, academic success, early behavioral adjustment and later attitudes toward school and self-reported delinquent behavior. Reporting on the High/Scope longitudinal project, Farnsworth notes that early school failure and IQ were not found to be related to self-reported delinquency in teenage. These findings are inconsistent with social bonding theory, which holds that low levels of ability increase chances of delinquency through intermediate school failure and negative attitudes. On the other hand, Farnsworth reports that

teacher ratings of conduct and personality in kindergarten and first grade related to three out of the four delinquency measures employed. It is these behavioral elements which are said to effect mediating school success and attitudes that accompany delinquent behaviors. Teacher ratings of anti-social behavior in kindergarten and first grade were found to relate directly to self-reported conning, lying and stealing behavior 10 years later.

These data suggest that it may not be the experience of failure per se but how the child behaves and copes with failure or stress in early life that may define early high risk for delinquency, and perhaps its related problems. The present report presents some evidence of relevance to this question.

#### METHODOLOGY

The overall longitudinal study involved a twelve year panel design with a random sample of 660 inner city youth aged 5 through 17 in 1980\*. Data were collected from or about the same sample of students between the ages 5 and 17 at two blocks of time: 1968-1972, and 1975-1981. During the second period of time, certain measures covering the intervening years 1972-1975 were obtained from school, police, and community mental health center records. This pattern of data collection was dictated by the funds available for the project from different sources over the total period of years.

This type of design offered possibilities for valid comparisons from early data to later delinquency in community and school, emotional and behavioral adjustment, and academic achievement. It also provided information regarding the temporal ordering of variables indicating whether or not a cause and effect relationship is plausible.

#### Data Collection: 1968-1972

The first data collection period began in October of 1968 in 29 schools from four center city Philadelphia public school districts. Between 1968 and 1972, classroom behavioral assessments by the teacher were made at one or two points in each school year. Data on academic achievement, school characteristics, psychological aspects of the child, and school events occurring to the children were also obtained. The school was the only source of data collected. The major purpose for the data collection in the first

\*Subsequent data have been collected when the sample was 20 years of age, covering emotional well-being and life-long work history. These data will be reported at a later date.

collection period was to eventually be able to specify the earliest behavioral signs indicating high risk for later behavioral and academic failure.

Initiating the data collection process throughout the first four years of the overall longitudinal study (kindergarten-3rd grade) required extensive groundwork, including clearances from the Superintendent's office of the School District of Philadelphia, conferences with all district superintendents and principals, periodic feedback sessions in order to review project progress and requests for new assistance, meetings with teachers, and a laborious process of tracking children in a highly mobile urban area.

Initial data collection began in October of 1968 in 29 schools from four center city school districts. These districts were selected because they served children and families within the catchment area of Hahnemann Community Mental Health/Mental Retardation Center. This area is characterized by all of the usual signs of poverty and underprivilege found in large urban centers. Children were selected randomly, with the following constraints: there would be half boys and half girls, half would be in A.M. and half in P.M. kindergarten classes, and half of each of these would have had pre-school (Head Start) experience. It was also planned that no teacher would have more than 12 children to rate.

Having met the above criteria, all 56 kindergarten teachers from the 29 schools agreed to participate. Meeting in small groups, teachers were told this was a longitudinal study of children with the purpose of studying classroom behavior patterns and how these would relate to subsequent learning and adjustment. They were

told that the long-range goal was to identify high risk behaviors, perhaps as early as in kindergarten, that call for preventive measures in the classroom. All teachers saw these purposes as reasonable, and seemed eager to participate. A brief 30 minute training period in how to use the Devereux Elementary School Behavior Rating Scale (DESB) (see Appendix A) followed. After all questions were answered, each teacher was given his or her list of students to rate and asked to return completed ratings to the principal's office within two weeks.

In May of 1969 (seven months later), each teacher was again contacted for a second rating of each youngster. By this time 126 youngsters (19% of original sample) were no longer in the same kindergarten and could not be rated. Each of the remaining 533 children were rated after a brief "refresher" training meeting with the teachers. At this point in time reading readiness scores were also available on each child, and data on number of absences and whether the child had been transferred. Early in the Fall of 1969 (beginning first grade) the tracking of "lost" cases began. Each principal of the original (kindergarten) school was supplied a list of children rated, and information sought as to each child's current first-grade whereabouts. Beginning with this query, and after numerous phone calls and correspondence, it was discovered that the children originally in 29 schools were now dispersed among over 60 schools, and in the classrooms of over 100 first grade teachers. Despite this tracking effort, and in part due to parochial school transfers (N = 35), there was continued attrition down to a sample of 443 children. The first grade teachers were met with,

told the purpose of the study, and trained in the rating process.

Some teachers were unwilling to participate, and this contributed to loss of ratings. Considering the unexpected teacher resistance, funds were sought and made available by the Philadelphia Board of Education to pay teachers for subsequent ratings. Payment was made for the next ratings, in May of 1970 (end of first grade). At this point 428 children were rated in 52 schools. This sample constituted 65 percent of the original sample rated at the beginning of kindergarten, 19 months earlier. At this point, other data became available: absences and transfer information, whether or not the child was part of a "follow-through" educational program, reading and arithmetic achievement marks from first grade, and whether the child required psychological testing for any reason.

One year later (Spring of 1971) the same process was repeated to locate as many children in the sample as possible, obtain classroom behavior ratings, and collect all other records information available. At this point the same categories of data were extracted, and in addition the results of the Stanford Academic Achievement testing.

During the Fall of 1971, when the sample was entering third grade, a complete tracking search was made for all children initially involved in the study. This search was abetted by a new computer system operated by the Division of Research of the Philadelphia Schools. With the assistance of the computer, and meetings with district superintendents, principals, and teachers, 611 (93%) of the original sample was successfully tracked. Sixty-five

(10%) of the original sample were found to be enrolled in parochial schools, and 32 (5%) had left the city area. Seven percent were "lost" to the study. All remaining children, totaling 514, were rated during May of 1972 (end of third grade). Ratings were obtained from 216 teachers in 91 schools located throughout the city. At this time, reading and arithmetic scores on the Iowa Test of Basic Skills were obtained, and as in previous years report cards supplied information about reading and arithmetic book level classroom achievement.

Data Collection: 1975 - 1981

During the second data collection period, an extensive search and data collection process was initiated at the beginning of each school year and continued throughout the school year. Through time, search procedures were refined and expanded, content of data and the classifications to fit the data refined, some measures eliminated and various measures added, and new questions asked of the data. The collection process focused on three sources: public schools, police department and community mental health centers. Student information relating to academic achievement, school conduct problems, classroom behavior and emotional adjustment was obtained from the public school teachers and records. Data on community delinquent behavior was acquired from the police department files, and data on emotional adjustment through community mental health center records. In 1980-1981, the original sample was traced through multiple sources and a face-to-face structured interview conducted covering the youth's

self-reported family, school and deviance attitudes, psychological well-being, delinquent behavior, and use of alcohol and drugs.

Procedures were established early to guarantee confidentiality and meet the specific regulations of all agencies involved. In 1975, new identification code numbers were assigned to each youngster in the initial study of nine years earlier. Once new numbers were assigned by school personnel, this listing was crosshatched with the old ID numbers, and the paired numbers sent to the computer center. Names and old ID numbers were erased from the records, and replaced by the new ID numbers. Thus, only the schools retained the crosshatch, and the research group retaining only the data and new ID numbers.

Data collection on the sample followed the same procedural guidelines each year. At the beginning of each year, the data collection process began with the search for students through the Pupil Directories of the Philadelphia Public Schools. These computerized annual directories contain information about current student status and location, birthdate, address, phone number, race, sex and dropout information about each child. Directories for the collection year were reviewed and the available sample was grouped by school location. A process devised through meetings with personnel from the Department of Research and Evaluation of the Philadelphia School District was then initiated to obtain school related information from the public school record system and teachers.

A collection strategy to obtain police related information was devised with the assistance of the Office of the Chief

Inspector of the Police Department, initiated in the school year 1976-77, and repeated each subsequent year. A list of all students in the original study, with birthdate and new ID number, was sent to the Philadelphia Police Department. Police personnel searched their records for evidence of contact with the Juvenile Aid Division (J.A.D.). Records on identified contact cases were sent to the research team coded only by ID number, all names and other identifying information removed.

In 1977 and each year thereafter, a process was developed to obtain data on the mental health of the subject. Community Mental Health Centers throughout the city were contacted and a confidential coding process was set up through which any of the project subjects who had mental health agency contact during their lives could be identified. Names and personal information were removed and data forwarded to the research team with ID numbers. This process required initial approval of the Philadelphia County MH/MR Office, approval of all Center Boards and/or Executive Directors, and the utilization of a reporting system to guarantee anonymity.

Specific collection strategy for school data

Schools in which the students were enrolled for that particular year were contacted by letters addressed to school principals. The letters described the nature and purpose of the project, and noted the approval of the study by the Philadelphia School Board. Concurrently, a cover letter enclosing a copy of the letter to the principals went to all district superintendents. The teacher's union was also notified by letter of the nature of the study and teacher involvement.

Subsequent to the letters, school visits and meetings with the principals of the schools involved were set up by phone for the following purposes:

1. To discuss the content of data sought for that particular year, the measures to be used, and the sources available,
2. To arrange the most feasible time for searching the school records for criterion data (which varied according to the year),
3. To set up meetings with the English and Math teachers of the students in the sample for the purpose of instructing them on the administration of the Hahnemann High School Behavior Rating Scale (HHSB) and Teacher Rated Adjustment Scale (TRAS).

A procedure similar to that of the public school search was followed in obtaining the cooperation of the Philadelphia Archdiocesan School System. This was done only during the year 1977-1978. Those students not located in the records of the Philadelphia Public Schools were listed. Permission to conduct the study, using the confidentiality procedures discussed previously, was obtained from the Archdiocesan Director of Public Personnel. With the advice and cooperation of the assistant superintendent of schools, a letter was drafted to the principals of each school, along with a copy of the list of students not located in the public schools. Code numbers of those students located in the parochial schools were returned to the research team. The principal of each school in which the

subjects were in attendance was contacted, and arrangements made to collect the information in a manner least disruptive to school personnel.

#### Specific collection strategy for police data

Working with the Records Division of the Police Juvenile Aid Division (J.A.D.) of the Philadelphia Police Department, a search was conducted through police files to identify which subjects in the sample had had police contact over the previous year (i.e. since the previous search). In order to categorize the nature of the contact in a manner similar to that suggested by Sellin and Wolfgang (1964), copies of each complete J.A.D. record as well as specific incident reports for each contact were obtained. After all personal identification information had been removed, these copies were made available to the research group for detailed analysis.

#### Development of the "Philadelphia Youth Survey" interview (1980-1981)

In the 1980-1981 data collection year it was decided to attempt a face-to-face interview with as many of the cohort as could be located and willing to cooperate. The purpose was to supplement the "objective" and third-party data obtained through the years with self-reported attitudes associated with delinquent behaviors, as well as self reported delinquency, alcohol and drug use, and subjective sense of well-being.

Following consultation with Dr. Delbert S. Elliott, the decision was made to draw heavily from Elliot's 'Interview Schedule', an instrument developed to assess a youth's delinquent behaviors and attitudes. This instrument was developed, variables clarified conceptually and operationally, and finally used in

Elliott's longitudinal study, a seven year national survey of adolescents, (Elliott, et al., 1982; 1983).

Also included in the 'Philadelphia Youth Survey' was Kellam's "How I Feel" (HIF), an instrument used to assess psychological well-being in urban minority adolescents, (Kellam, 1980). The HIF was designed to measure several multi-item constructs representing subjective states (e.g. depression, anger, hope, etc.).

The 'Philadelphia Youth Survey' comprised of Elliott's and Kellam's instruments, was designed as a questionnaire to be used during a structured interview. (see Appendix B).

General procedures and interviewing techniques:

Procedures were developed with emphasis on confidentiality of information, protection of interviewee rights, a uniform interview process, and accuracy of information.

Confidentiality was guaranteed by the development of certain policies and procedures. At all times, every precaution was taken to insure that the names of the students would be kept confidential. Respondent's name and address were identified by trained personnel with his/her identification number on the cover sheet of the interview. This was completed at the beginning of the interview, detached and put in separate envelopes and stored in locked files at the research office. Only the ID number was put on the interview. Records of interviews were not available to any teacher or administrative staff of the school or to any other unauthorized personnel. Students were also assured that their identities would not be revealed in any

subsequent reports. Care was also taken to assign interviewers to areas where they would not be likely to know students.

Protection of human rights was guaranteed by the requirement that all respondents sign an informed consent form before undertaking an interview. Since many were 17 years of age at the time of the interview, parental or guardian signature on a consent form was also obtained. The consent forms included a brief description of the study, outline of participation requirements, notice of payment for participation, and guarantee of confidentiality (see Appendix C).

The uniformity, reliability of the data gathering, and unbiased administration were assured by a vigorous training workshop. Interview staff engaged in the study articulated the following guiding principles which were felt to be instrumental in reaching these goals:

- a) Establish rapport in initial contact. It was important to do this in an attempt to forestall self-consciousness, uneasiness and defensive feelings on the part of the student.
- b) Encourage willingness and active participation on the part of the student by having him or her understand the confidentiality of the study. In the beginning, some youths were inclined to be hesitant about agreeing to participate. Their gradual understanding that the study was confidential and in no way part of the school records contributed to their willingness to actively participate.

- c) Although concern was in minimizing the number of refusals, make constant effort to foster the feeling that the respondent should feel free at any time to terminate the interview.
- d) Select setting as to maximize privacy.
- e) Guarantee anonymity so that youth will admit certain offenses.

The research office checked the interview records for clarity and completeness. Incomplete and unclear records were discussed with the interviewer. Records also were scrutinized for any evidence of failure to follow prescribed procedures and any deviations were brought to the attention of the interviewers.

Tracking Procedures: An exhaustive search for the students in the sample was initiated in November, 1980. The research team followed all leads to track respondents. If the lead was only an address, a letter of introduction and consent forms were mailed and an immediate reply requested. This was repeated in two weeks if there was no reply. If still no return, a door-to-door search was conducted. If the lead was only a phone number, a call was made and, if phone contact was made with youth of the same name, he/she was checked for identifying information. If the youth was the correct party, information about the study was given, and participation requested. Consent forms were mailed out subsequent to the call. In all cases, once the correct youth was identified, (by phone, mail, or in person) he/she was told about the study, and signatures on consent forms were requested. Once the forms were signed and returned, arrangements for the interview were set up. Interviews took

place at school, research office or other designated place.

The path to the correct youth came from many different sources: school computer printouts; matching and sorting computer tapes; school to school search of student lists, dropout and transfer files; community churches, organizations, and agencies; city and community newspapers; television announcements; and cross-reference address lists. Current student status and location were obtained from the Pupil Directory Information File (Computerized System) of the Philadelphia School District, and a list of currently enrolled students with their respective schools created. All identifying information such as address, phone number and dropout indications were noted from the file so that non-attenders and dropouts could be tracked by address and/or phone. In addition, computer tapes were obtained listing the sample by Philadelphia School ID, and the tape was matched with the Pupil Directory Information File tapes from previous years for the last known information on the student. This was done to obtain an address, phone number or last known attended school of the students who might have dropped out, transferred to parochial schools, moved or just were unable to be located for any reason.

All public schools in the Philadelphia School District were contacted by letters addressed to school principals and district superintendents, indicating that the study was being continued and that, in addition to the collection of certain measures, an interview would be conducted. Subsequent to the letters, school visits and meetings with the principals were held for

the following purposes: 1) Working out the most feasible method of arranging for an initial contact with the student if currently enrolled so that he/she could be told about the study and consent forms obtained, 2) Working out a private and appropriate setting for the interview so as to maximize confidentiality and an unbiased administration, 3) Setting up times to collect from school records academic achievement measures, and non-attenders and dropout information, 4) Arranging to search current and past dropout files and transfer files for any address, phone number or any lead information on the missing students.

All parochial schools were sent a letter of introduction to the study and our need to search for the missing cases in our sample. A meeting was set up by phone with administrative personnel, and a request made to search school lists and dropout files for information on any of students in the sample who might have transferred to parochial school. If students were currently enrolled in the school, methods were devised with the administration on how, when and where to get student out of class for initial contact and subsequent interviews so as not to disrupt the continuity of the student's curriculum.

Since the Hispanic students in the sample accounted for 13 percent of the missing cases, a concentrated effort was made to contact Spanish organizations and churches in search of missing names. An advertisement listing the missing Hispanic names was placed in the Spanish newspaper Actualidad, with the notice that if his/her name was on the list, the reader should call the research office. If he/she were the correct party

he/she was told that he/she could earn \$20 by participating in the survey. When the calls came through they were checked with identifying information to make sure it was the correct person. If so, letters of introduction and consent forms were sent out, and arrangements made for the interview at the research office or other designated place. Other community organizations, agencies and churches located in the Philadelphia area were also contacted for the entire missing case list.

A similar advertisement with all the missing names was placed in the Daily News and other Philadelphia community newspapers. Public service announcements were made on several television stations, asking that any youth born in 1968 who attended the Philadelphia schools and fit certain identifying information had a chance to earn \$20 by calling the research office and participating in a youth study. Similar written posters and notices were also put in key areas around the city. Community organizations and agencies were also contacted for the missing names.

INDEPENDENT VARIABLES

The independent variables used in this study were derived from the early data collection period (1968-1972) when the sample was in kindergarten to third grade. As Chart 1 indicates, data collected during this period included teacher rated classroom behavior, teacher subject marks and annual academic achievement test scores, absences from school, transfers from one school to another, whether or not the child repeated a grade or was placed in a special class, and environmental factors descriptive of the schools attended.

The present report considers only the classroom behavior and academic achievement data.

Classroom Behavior

Classroom behavior reflects the behavioral adaptation of the student to the interpersonal and task demands of the school environment. In this study, DESB factor scores were used as specific indices of such overt adaptive capacity. These scores were derived from the classroom behavior ratings which were obtained from teachers employing the DESB rating scale, (Spivack and Swift, 1966, 1967; Swift and Spivack, 1968). Ratings were made at the beginning and the end of kindergarten and first grade, and at the end of second and third grades.

The 11 factors measure:

1. Classroom Disturbance: extent to which the child teases and torments classmates, interferes with others' work, is quickly drawn into noisemaking, and must be reprimanded or controlled.

Chart 1

Independent Variables Within Each Area of Study, Years  
of Collection and Manner of Measurement

Area of Study	Independent Variables	Years of Collection	Manner of Measurement
Classroom Behavior	DESB Factor Scores	1968 - 1972	DESB Teacher Ratings
	HHSB Factor Scores	1976 - 1980	HHSB Teacher Ratings
Academic Achievement	Academic Achievement Testing	1968 - 1979	School Records
	Classroom Teacher Marks	1969 - 1979	" "
	Left Back	1968 - 1978	" "
	Special Class	1968 - 1976	" "
Academic Stability	Absences	1968 - 1978	" "
	School Transfers	1968 - 1972	" "
Environmental Factors	Racial balance of school	1968 - 1972	" "
	Average academic test level of every school attended	1968 - 1972	" "

2. Impatience: extent to which child starts work too quickly, is sloppy in his work, is unwilling to go back over work, and rushes through his work.
3. Disrespect-Defiance: extent to which child speaks disrespectfully to teacher, resists doing what is asked of him, belittles the work being done, and breaks classroom rules.
4. External Blame: extent to which child says teacher does not help him, never calls on him, blames external circumstances when things do not go well for him, and is quick to say the work assigned is too hard.
5. Achievement Anxiety: extent to which child gets upset about test scores, worries about knowing the "right" answers, is overly anxious when tests are given, is sensitive to criticism or correction.
6. External Reliance: extent to which child looks to others for direction, relies on the teacher for direction, requires precise directions, and has difficulty making his own decisions.
7. Comprehension: extent to which child gets the point of what is going on in class, seems able to apply what he has learned, and knows material when called upon to recite.
8. Inattentive-Withdrawn: extent to which child loses his attention, seems to be oblivious to what transpires in the classroom, and seems difficult to reach or preoccupied.
9. Irrelevant-Responsiveness: extent to which child tells exaggerated stories, gives irrelevant answers, interrupts when teacher is talking, and makes irrelevant comments during classroom discussion.

10. Creative Initiative: extent to which child brings things to class that relate to current topics, talks about things in an interesting fashion, initiates classroom discussion, and introduces personal experiences into class discussion.
11. Need for Closeness to Teacher: extent to which child seeks out the teacher before or after class, offers to do things for the teacher, is friendly toward the teacher, and likes to be physically close to the teacher.

Each factor provides a continuous score, and each child's profile of factor scores was "typed," following the system devised by Spivack, Swift and Prewitt (1972) and Swift, et. al. (1971). There are two basic ineffective adaptation types. One type exhibits high external reliance (factor 6) and inattentiveness (factor 8), and the other exhibits signs of poor self-control: high scores on three or more of factor 1 (classroom disturbance), 2 (impatience), 3 (disrespect-defiance), 4 (external blame), and 9 (irrelevant-responsiveness). Both types usually exhibit abnormally low levels of creative-initiative (factor 10), and comprehension (factor 7). Some children exhibit behaviors which when profiled reveal qualities of both maladaptive types. Successfully adaptive profiles are in general the converse of these patterns, reflecting the youngster is productively engaged and involved in the learning and social processes of the classroom, and comprehending what is going on. A third category of profile type consisted of children whose profiles were doubtful. The behavior patterns were not clearly maladaptive, but on the other hand did reveal some questionable signs.

Academic achievement

As noted earlier ( see Methodology) teacher marks in all grades and subjects, as well as test scores, were obtained every year. The test scores included the Philadelphia Reading Readiness scores obtained at the end of kindergarten.

The fact of being left back, or retained in grade, was also noted each year, as well as whether the student was placed in a special class. The decision for special placement required a psychologist testing to substantiate an intellectual functioning level below average. These data were not analyzed for the present report.

Academic stability

Each year of the present study were recorded the total number of absences from school and the fact of being transferred from one school to another. These data were not analyzed for the present report.

Environmental factors

From 1968 to 1972, each school attended by a child was noted both for its racial balance and average tested academic achievement level. These data were not analyzed for the present report.

Other data available but not analyzed for the present report include whether or not the child attended pre-school, age at entering kindergarten, and whether the child attended a "follow through" special educational program immediately after pre-school experience.

DEPENDENT VARIABLES

The dependent variables in this study can be grouped into three areas for study: delinquent behavior, academic achievement and emotional adjustment. Alcohol and drug use data were also available from the 1980 interview. Chart 2 presents the dependent variables, the manner of measurement, and the years data on the variables were collected. Not all the potential dependent variables included in prior reports (Spivack, et. al., 1978, 1979, 1980) are included below. For example, intercorrelation matrices of all possible indices of a particular area were examined, and the index with the highest correlations with all the others was selected. If two or more intercorrelated variables seemed to be the same thing, the variables were collapsed into a single measure or the one with the greater correlations was chosen. Following is a compilation of the dependent variables under each area of study, and how it was defined, assessed and collected.

Delinquent behavior

Delinquent behavior was used in this study in a very broad sense to refer to the following patterns of conduct:

- 1) Community deviant behavior - behavior which is injurious to the community (such as, property and personal crimes) and conduct injurious to the child himself (such as running away from home or school). In this study, seriousness of police contact offenses and the number of police contacts, and self-reported total theft score, total personal crime score and total face-to-face were used as specific indices of delinquent behavior in the community.
- 2) School conduct problems warranting disciplinary actions - as measured by the number of school disciplinary slips, the

Chart 2  
Dependent Variables, Years of Collection, and Manner of Measurement

Area of Study	Dependent Variable	Years of Collection	Manner of Measurement
<u>Delinquent Behavior</u>			
Delinquent acts in community	Police Contacts	1968 - 81	Official Police Records
	Total Seriousness Score	1968 - 81	" " "
	Total Theft	1980 - 81	Structured Interview
	Total Personal	1980 - 81	" "
	Total Face to Face	1980 - 81	
School conduct problems	Total Offense Score	1976 - 79	Disciplinary Slips
	Department	1972 - 78	School Records
	Non-attender	1978 - 81	School records, disciplinary slips & teacher ratings
Classroom behavior disturbances	HHSB Delinquency Score	1976 - 80	HHSB Teacher Ratings
	TRAS Conduct Disturbance	1976 - 79	TRAS
Attitudes	Positive Identification	1980 - 81	Structured Interview
	- Family	" "	" "
	- School	" "	" "
	- Law	" "	" "
	Attitude Toward Police	" "	" "
	" " Deviance	" "	" "
<u>School Performance and Experience</u>			
Academic Achievement	Achievement Tests	1968 - 81	School Records
	Teacher Marks	1969 - 81	" "
	Left Back	1968 - 81	" "
	Special Class	1968 - 81	" "

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Chart 2 (continued)

Area of Study	Dependent Variable	Years of Collection	Manner of Measurement
Classroom Behavior	HHSB Positive Achievement TRAS	1976 - 80 1976 - 80	Teacher Ratings " "
Attitudes	Commitment to School	1980 - 81	Structured Interview
<u>Emotional Adjustment</u>	Counselor Contact	1976 - 1979	School
	TRAS Neurotic Withdrawal TRAS Positive Adj	1976 - 80 " "	Teacher Ratings " "
	CMH/MR Contact	1968 - 1980	CMH Centers
	Psychological Well-being	1980 - 81	Structured Interview

total offense score derived from the disciplinary slips, department grades and non-attender school status;

- 3) Display of conduct disturbance behavior in classroom - amount of negative, defiant, quarrelsome behavior as measured by teacher rating scales;
- 4) Attitude towards deviance/positive identification - attitudes regarding family, school, law and police, and social deviance, as assessed from self-reports.

Police contact: Police contact represents a criminal incident. It was assessed by evidence of an incidence report (75-48 Police Department Complaint form) and /or a cumulative record (75-163) which is maintained for each youth who had contact with the Philadelphia Police Juvenile Aid Division (See Appendix D). Police incidents were obtained for the years 1970-1981.

The 75-48 Philadelphia Police Department Complaint Report is generally completed in writing by the officer(s) on duty in whose patrol area an offense occurs. It is standard procedure that this form be completed each time an officer initially answers a complaint regardless of the nature or outcome of the complaint. The form contains information which identifies: (1) the precise area in which the offense allegedly occurred, giving police district number, sector of that district, car number of the investigating police vehicle(s), street location and whether complaint involved an indoor or outdoor incident; (2) precise time of occurrence, including date (day, month, year), time car left to investigate the complaint, time car departed the scene of the alleged incident, and day code; (3) complainant and his or her address; (4) details of the alleged incident including whether the complaint is "founded" (i.e. was the reported incident found to have actually occurred), the specific

nature of the incident or complaint and, in the case of juvenile offenders, the identification of the Juvenile Aid Division officer who is assigned responsibility for investigating the incident.

The 75-48 is completed each time a complaint is filed; however, since subsequent forms utilized by the Police Department record the same information as well as details of subsequent investigation of the complaint, the 75-48 was examined by the research team only in those instances where no subsequent, more detailed information was available.

Form 75-163 is a cumulative record, one of which is maintained for each youth who has had contact with the Juvenile Aid Division. In addition to identifying information, it lists each alleged offense (IAW the FBI Offense Classification System) in chronological order, the date on which the offense was said to have occurred, whether the youth was arrested in connection with the offense, the 2-digit Philadelphia Police district in which the offense allegedly occurred, and the 4 digit complaint or incident report number. While provision is made for the inclusion of the disposition of the case and the date of disposition, this information was found to be missing. This form is commonly referred to as an "abstract."

The police records thus supplied information on every incident in which a study subject was involved, and it was decided to obtain the following information on each incident for each subject.

1. Date
2. Age, race and sex of child
3. Gang affiliation
4. Violation alone or with others
5. Disposition
6. Classification of crime

Total Seriousness Score (Police Contact): Total seriousness score represents a measure of delinquency taking into account the frequency,

complexity, and degree of gravity of offense of the delinquent. Application of the scale provides an assessment of the seriousness of a single incident, considering the total amount of social harm that is associated with delinquent act in a community (Sellin and Wolfgang, 1978).

Sellin and Wolfgang developed the final scale by asking 195 male students to rate 141 offenses derived from a random sample of records from the Philadelphia Juvenile Aid Division. From the results a weighting system was developed based on the relative degree of judged harm by dividing each mean score by the smallest offense score on the list, this yielding a set of ratio weights. (See Appendix E) The responses of the students were averaged using the geometric mean and reduced to a ratio of scores.

The process has been replicated in other cultures and with other populations, demonstrating the reliability of the scale construction. Akman, Normandeau and Turner (1966) replicated the study on male and female Canadian students. This pilot study was used to develop a national index of crime and delinquency in Canada (Akman, Normandeau, and Turner, 1967) based on 13 distinct cultural groups. Velle-Dias and Megagee (1971) found consistent results in Puerto Rico on a sample of delinquent offenders and non-offenders. The authors concluded that their data reflected consistent values and attitudes toward relative seriousness of criminal offenses that were general throughout western culture. Figlio (1975) found that non-offenders and offenders agree to the ordering of the offenses along a scale from most to least serious but agree less on the spacing between items.

Police contacts were scored using the Sellin-Wolfgang scoring method to obtain a total cumulative seriousness score for each subject. The scores ranged from 0 to 3,000, zero being the least serious

offense and 3,000 being the most serious. Appendix E provides the system of total weighting of each crime by the weighting of each of its elements. An index event would include at least one or more elements of injury, forcible sexual intercourse, intimidation, premises forcibly entered, stolen motor vehicles, and property which was stolen, damaged, or destroyed. A non-index event is generally a status offense such as truancy or running away or any other which applies only to juveniles 18 years of age or younger. Weights for non-index events were devised by Wolfgang, Figlio and Sellin (1972).

Each event or police contact was scored using the following method. A narrative explanation of the event which contained a verbatim description of the crime from the complainant, witness and arresting officer was read from the police report. With this knowledge the researcher scored the elements of the event. If the verbatim description was unavailable, information was derived from other police forms which provided less descriptive information. If only this type of information was available the most conservative estimate of the event was scored.

When questions arose with the scoring procedure the problem was discussed among the raters and a consensus was agreed upon. Each incident was rescored by a second rater as a reliability check. An inter-rater reliability coefficient of .95 indicated a high degree of reliability in the scoring procedure. A total seriousness score for an individual was obtained by adding the scores of all of an individual's crimes throughout his youth.

Total Theft, Total Personal and Total face-to-face (Interview data):

The three dependent variables (total theft, total personal and total face-to-face robbery) were derived from the delinquency self report interview of 1980. (see Chart 2). Total theft represents the sum of

minor and major personal categories. Face-to-face robbery refers to the use of force to accompany theft.

The delinquency self report instrument had a series of questions which tapped delinquent behavior. Responses to these questions were classified into several categories.

Minor theft - refers to theft of items less than \$50.

Major theft - refers to theft of items greater than \$50.

Minor personal - refers to assaults or threats against the individual.

Major personal - refers to more intentional and serious assaults.

Face-to-face robbery - refers to use of force to accompany theft.

Within each category, interview questions were designed as to necessitate a yes/no response as to whether the respondent ever committed the delinquent act during the previous year, and then any time prior to one year ago.

Total offense score: The total offense score is the sum of the number of minor school offenses committed by the subject, plus the number of major school offenses multiplied by 2. These scores were derived from the school "pink slip," an in-school form used by teachers and administrators to formally record the description of any student offense warranting disciplinary action. These disciplinary forms were collected for the years 1976-1980.

The pink slip file is retained in the schools only for one year, and is maintained by the vice principal or disciplinary officer. Each slip describes the offense in the recorder's own words and the action taken in response to the infraction. For each year the "pink slip" file at each school was examined and each subject's slips were recorded verbatim. A method was developed to classify types and severity of disciplinary offense. The categories of offense

were: 1) personal offenses (involving personal attack or affront); 2) property offenses; 3) institutional rule violation. The first and second categories were further subdivided into whether the offense was against a child, adult, or institution, and whether the offense was a major or minor one. Examples of offenses and their categories are presented in Appendix F.

Department: Department scores refer to classroom behavior report card marks or citizenship practices recorded by the classroom teacher. These measures were collected for the years 1972-1981. These were averaged when necessary, and converted to a number similar to that created for data from earlier grades to maintain continuity and consistency with existing prior information.

Non-attender/cutter: Information on whether a student was considered a non-attender was obtained through school attendance print-outs, notations made on the teacher rating scales, school records, and/or disciplinary forms. This was collected for the years 1978-1981. A non-attender/cutter was a student absent so often as to be classified as a "non-attender" in his records, as unratable by the teacher when confronted with the rating task, or as warranting disciplinary action due to school absence.

TRAS conduct disturbance behavior: The TRAS conduct disturbance measure taps excessive amounts of verbally critical and disrespectful behavior, physically restless, interfering, hostile and annoying behaviors or other behaviors that call forth reprimands or teachers attempts to control.

This measure was assessed by the Teacher Rated Adjustment Scale (TRAS) combining items 7, 9, and 10 (see Appendix H). The TRAS consists of ten items, each of which describe a positive or potentially negative behavior. For the years 1976-1980 the subject's

English and Math teachers were requested to complete this behavior rating scale for the year the student was enrolled. The year 1976-77 was not used for this measure because items 8, 9, and 10 were not included that year. The English and Math teachers rated the frequency of occurrence of the behavior on a 5-point scale, ratings made relative to the average youngster in such a classroom. The items rated were:

1. Appear friendly and outgoing
2. Act depressed or despondent
3. Act withdrawn or uncommunicative
4. Show positive leadership qualities
5. Act agitated or anxious
6. Act interested in what is going on in class or school
7. Get emotionally upset about things
8. Act timid, shy, fearful, self-conscious
9. Act uncooperative; disobedient, disruptive with others
10. Act assaultive, quarrelsome initiates fights.

The conduct disturbance measure derived from a factor analysis of these items, indicating that items 7, 9 and 10 define a separate factor.

Personal values and identification with parents/family, school, and lawful behavior: Attitudes and values shown to be associated

with delinquent behavior, touching upon parents and family life, school, the law, and deviant behavior, were measured through self-report questions adapted from the work and Elliott and his colleagues (1985). Chart 3 lists the specific items tapping each dimension, the actual items being listed in Appendix H. Value commitment items directly tapped the degree to which respondent answers indicated a positive evaluation of parents

Chart 3

Interview Variables and Items Comprising Each Variable

<u>Variable</u>	<u>Items</u>
Value Commitment	
Family	1, 3, 5, 7, 10
School	2, 4, 6, 8, 9
Positive Identification	
Family	21, 24, 26, 28
School	22, 23, 25, 27, 29
Law	31
Attitudes Toward Deviance	12 - 20
Delinquency Behavior Self Report	
Theft Minor	36, 42, 47
Theft Major	33, 34, 35, 48
Personal Minor	39, 40, 49
Personal Major	37, 38, 43
Face-to-Face Robbery	44, 45, 46
Drug Use	
Alcohol	68
Pot	69
More Serious Drugs	70 - 76
Psychological Well-Being	
Anger	50, 55, 59, 63
Anxiety	52, 56, 60, 64
Depression	53, 57, 61, 65
Hope	51, 54, 58, 62, 66, 67

and family life, as well as school experiences. Positive identification items tapped the extent to which the respondent expressed commitment to the family or school or law when such commitment might be easily compromised by expedient action to gain peer or other immediate satisfaction. Attitude toward deviance items tapped degree to which the respondent judged a variety of socially deviant acts as "wrong".

School performance and experience

School performance refers to the level of school success as evidenced by school achievement and display of positive academic behaviors in the classroom. Indices of academic achievement were standardized tests and teacher marks. Positive academic behaviors were assessed through teacher ratings of the sample.

Achievement test scores: The California Achievement Test (CAT) scores, standardized national test scores, were used as indicators of academic accomplishment. These scores were obtained through school records and were collected for each year (1972-1981).

Both the percentile score and Adult Developmental Scale Score (A.D.S.S.) were recorded in Reading, Math, Language and Spelling.

Teacher Marks: Graded report card marks (English and Math) were also employed to assess school achievement. These grades were collected from 1969-81.

HHSB Positive achievement behavior scores: Between the years 1976 and 1980, HHSB rating scales were obtained from English and Math teachers (see Appendix G). The positive behavior score consisted of the total score of the first five factors:

1. Reasoning Ability - taps the extent to which the student grasps new ideas quickly, is able to sift through information and work out answers on his own, and is able to apply information and principles to new or unfamiliar problems.
2. Originality - taps degree to which a student presents points of view to stimulate the thinking of others; promotes discussion in class; presents unique, yet relevant, ideas; prepares assignments and carries out tasks in an interesting, original fashion.
3. Verbal Interaction - taps the degree of involvement in the information flow in class.
4. Rapport with the teacher - taps the desire for, and willingness to relate positively to the teacher.
5. Anxious Producer - taps the degree to which the student feels he must produce and even overproduce in the classroom.

Current analyses report on English class ratings.

Emotional Adjustment

Emotional adjustment was measured by teacher ratings of neurotic withdrawal behavior on the TRAS, the youth's own report of his feelings of well-being, the fact of a contact with a CMH/MR Center in the City of Philadelphia, and a counselor contact interpreted as indicating emotional disturbance.

TRAS neurotic-withdrawal: The TRAS measure indicated the extent of withdrawn, non-outgoing, timid, fearful of self-conscious behavior.

This measure was assessed by the TRAS combining items 1, 3 and 8 (see Appendix H). These three items defined a separate factor when TRAS data were subjected to factor analysis.

Psychological well-being: This measure was developed by Peterson and Kellam (1977) to assess psychological well-being among urban Black adolescents. Reported reliability and validity are quite satisfactory. The items used in the present study (see Chart 2) have been found to define factors of experienced anger, anxiety, depression and hope, and to have satisfactory internal consistency. Each item was read to the respondent, and he or she indicated the degree to which the feeling was experienced "over the past several weeks." (See Appendix B).

Counselor Contact: Information about counselor contact for emotional disturbance was obtained from a school counselor form which indicated whether contact with the child had taken place during that school year, when, and the nature of the contact (for conduct, emotional disturbance, academic difficulty or other). Counselor contact forms were collected only for the years 1976-1979, since it was determined that there were more reliable and objective sources of mental health information for the items 1-4. Only data from item 5 on the school counselor form (see Appendix I) have been analyzed.

Community Mental Health Data: Community Mental Health/Mental Retardation Centers provided a listing of the subjects by ID numbers from the sample who had been in contact with them at some point during the years 1977-1980. Specific diagnosis and dates of initial contact were also recorded in the subject's files, but only the fact

of having a CMH/MR contact was considered of sufficient reliability to be used in the study.

RESULTS: DESCRIPTIVE FINDINGS

Official Police Contact

Frequency of police contact:

Table 1 indicates that 39% (N=121) of males and 16% (N=49) of females had at least one official police contact up to age 18. If one accepts 4 or more such contacts as indicating chronicity of such contact, 11% (N=30) of males but only 1% (N=3) of females had a chronic history of police contact. This sex difference in police contact is well known. It indicates not only that significantly fewer females have an official contact, but that fewer are recidivists following their first contact. Only 14 (28%) of the females had further police contact after their initial contact, while 63 (52%) of the males had such further police contact. These data clearly suggest that "criminality" as a way of life is quite atypical of urban minority women, but would describe one aspect of a total life style of perhaps one out of ten urban minority males.

Age of first contact:

While delinquency may be largely a teenage phenomenon, it is clear from Table 2 that delinquent histories may begin long before puberty. Among males, 31% of the police contact cases had their first officially recorded delinquency before the age of 13. This is true of 22% of the female group. The data also indicate an increasing likelihood of first police contact with increasing age up to the peak age of 15, when 21% of males and 28% of females had their first contact.

Correlations among police contact measures:

Since a number of measures of official police contact were available for study, and since it would be most efficient to select the best one for research purposes, analyses of the intercorrela-

Table 1

Frequency of police contacts as a function of sex

No. of Contacts	Male		Female		Total	
	N	(%)	N	(%)	N	(%)
0	198	(61)	269	(84)	467	(72)
1	58	(17)	35	(11)	93	(15)
2	25	(8)	11	(4)	36	(6)
3	8	(3)	-	-	8	(1)
4	6	(2)	-	-	6	(1)
5	5	(2)	1	(0)	6	(1)
6	5	(2)	-	-	5	(.8)
7	2	(1)	2	(1)	4	(.6)
8	5	(2)	-	-	5	(.8)
10+	7	(2)	-	-	7	(1)
Total (N)	319a (100)		318a (100)		637a (100.2)	

<sup>a</sup> 12 boys & 10 girls were lost from the study because they left the Philadelphia area.

Table 2

Age at first police contact  
for each sex and total sample

Table 2 describes the age of first police contact

Age of subjects ( in years)	<u>Sex</u>					
	Male		Female		Total	
	N	( % )	N	( % )	N	( % )
6	1	( 1 )	1	( 2 )	2	( 1 )
7	1	( 1 )	-	-	1	( 0 )
8	3	( 3 )	-	-	3	( 2 )
9	3	( 3 )	-	-	3	( 2 )
10	7	( 6 )	2	( 4 )	9	( 5 )
11	11	( 9 )	2	( 4 )	13	( 8 )
12	10	( 8 )	6	( 12 )	16	( 9 )
13	14	( 12 )	4	( 8 )	18	( 11 )
14	17	( 14 )	7	( 14 )	24	( 14 )
15	27	( 21 )	13	( 28 )	40	( 23 )
16	21	( 17 )	7	( 14 )	28	( 17 )
17	6	( 5 )	7	( 14 )	13	( 8 )
Total	121	(100)	49	(100)	170	(100)

tions among four of them were done to help in this selection process. Table 3 presents the correlations among the following measures for each sex separately: age of first police contact, total number of police contacts in the youngster's history, the seriousness score of the youngster's most serious crime, and the youngster's total seriousness score for all the youngster's crimes during his lifetime. Only data from youngsters with more than one police contact could be used in order to supply the information needed for such a table. While the female correlations do not reach statistical significance due to small sample size, the directions of correlations closely parallel those of the male group, the latter's correlations also reaching statistical significance in most instances. The correlations indicate that total seriousness score might be the best single measure to use to represent the degree to which a youngster may be labeled delinquent. Among males this measure correlates significantly with the other three measures, and the same pattern of correlations emerges in the female group. On the other hand, age of first contact correlates more highly with number of police contacts than total seriousness scores. Finally, it may be noted that number of contacts and total seriousness score correlate .64 in males, suggesting that either measure may be used or both depending upon the analysis in question.

It will also be noted that age of first contact is an indication of the likelihood of multiple police contacts in a youngster's history. Thus, while it may be said that an official police contact before adolescence is very likely not a serious one, such contact should not be taken lightly as it presages a likely continuation of delinquent behavior.

Table 3

Intercorrelations among police contact measures in both sexes

		<u>Females (N=14)</u>			
		<u>Age 1st contact</u>	<u>No. police contacts</u>	<u>Maximum seriousness score</u>	<u>Total seriousness score</u>
<u>Males (N=63)</u>	<u>Age 1st contact</u>		-.62 <sup>b</sup>	-.18	-.23
	<u>No. police contacts</u>	-.44 <sup>c</sup>		.21	.39
	<u>Maximum seriousness score</u>	-.12	.31 <sup>b</sup>		.93 <sup>c</sup>
	<u>Total seriousness score</u>	-.27 <sup>a</sup>	.64 <sup>c</sup>	.88 <sup>c</sup>	

<sup>a</sup>p = .05

<sup>b</sup>p = .01

<sup>c</sup>p = .001

Self-reported Delinquency

Relationship between self-reported and officially recorded police contact:

Before reporting descriptive information regarding self-reported delinquent behavior, it seemed of interest to compare the self-reports of police contact with the official record of contacts obtained from police files. Lack of correspondence would call into question the validity of all the self-reported delinquency information.

Table 4 indicates a very significant relationship between self-report and official data indicating police contact among males. No analysis of female data was attempted owing to the small number of police contact cases. A few interesting elements appear in Table 4 other than the significant level of correspondence, all related to the fact that the correspondence is by no means perfect. First there is the issue of 35 cases who reported having had a police contact who have no official record of such contact. Examination of the question asked offers at least one explanation. One item (49a) inquires of being, "picked up by the police for truancy" with no reference to being taken to the police station or "booked." It is quite likely that a number of males reported "yes" to this item having had the experience but no police file opened on them. It is also quite possible that other boys had been picked up by the police and taken to the police station having been involved or suspected of delinquent involvement, and then released without being booked.

Table 4 also indicates there were 24 instances wherein youngsters reported no contact wherein official records indicate there had been. The most obvious explanation is that these youngsters were consciously attempting to deceive the interviewer. An indirect check on this was made by analyzing the age and seriousness of the first

Table 4

Relationship between self-report and official police codes of police contact among males <sup>a</sup>

		<u>Self-reported contact</u>	
		<u>No (%)</u>	<u>Yes (%)</u>
Official records	None	83 (77)	35 (39)
	Once	18 (17)	26 (29)
	More than	6 (6)	28 (32)

<sup>a</sup> Chi-square 35.77, df2; p = .001.

contact of all official contact cases to see if self-report "yes" and "no" cases differed. The implication of Table 4 is that lying is not a reasonable explanation since those "admitting" to contact were more likely to be chronic offenders. One would assume that if lying were the dynamic, chronic delinquents would be more likely to lie. Age and seriousness of first contact were assessed since age of first contact was related to seriousness of infrequent delinquent history, as reported earlier. The age analyses was not significant, the median age of first contact for both groups being 14. A chi-square comparing seriousness of the first delinquency tended toward significance ( $\chi^2 = 2.69$ , df 1;  $p = .10$ ), indicating that the seriousness of first offense was greater among those admitting to delinquency than those presumed to have lied. The finding is consistent with Table 4 findings that more chronic offenders tended to tell the truth. Perhaps a more reasonable explanation for the 24 cases who did not self-report their official police contact is that, tending to be minor offenders, they wished to minimize or deny their delinquency histories, histories more inconsistent with their current life style than is the case with chronic offenders.

Self-reported delinquency factor scores

Table 5 and 6 provide levels of delinquency for categories of self-reported theft, personal attack, face-to-face robbery, and police contact for males and females. First it will be noted that levels of self-reported police contact (45% for males and 15% females) slightly exceed the official record levels. This is a reasonable finding, considering the likelihood of an actual delinquency role exceeding that reported in police files.

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Table 5

Self-report delinquency factor scores and police contact of males:  
frequencies and percents

	Factors							Picked up by Police
	Minor Theft	Major Theft	Total Theft	Personal Minor	Personal Major	Personal Total	Robbery (Face-Face)	
2								107 (55)
3	105 (54)			62 (32)	120 (62)		157 (81)	41 (21)
4	25 (13)	111 (57)		47 (24)	36 (18)		16 (8)	33 (17)
5	36 (19)	26 (13)		61 (31)	30 (15)		15 (8)	7 (4)
6	14 (7)	34 (17)		15 (8)	3 (2)	46 (24)	1 (1)	8 (4)
7	11 (6)	9 (5)	82 (42)	7 (4)	6 (3)	42 (22)	5 (3)	
8	2 (1)	10 (5)	16 (8)	1 (1)		48 (25)	1 (1)	
9	1 (1)	2 (1)	32 (16)	3 (2)		16 (8)		
10		1 (1)	16 (8)			26 (13)		
11		2 (1)	21 (11)			5 (3)		
12		1 (1)	5 (3)			7 (4)		
13			11 (6)					
14			2 (1)			2 (1)		
15			4 (2)			1 (1)		
16			3 (2)			1 (1)		
17			2 (1)					
1 N	194	196	194	196	195	194	195	196

<sup>a</sup> The cells for each factor indicating the number and (percent) of cases with the lowest score indicate the number and (percent) that obtained a zero score on the factor (i.e. no reported delinquency).

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Table 6

Self-reported delinquent factor scores and police contact  
of females: frequencies and (percents)

Scores	Factors							Picked up by Police
	Minor Theft	Major Theft	Total Theft	Personal Minor	Personal Major	Personal Total	Robbery (Face-Face)	
2						171 (78)		191 (85)
3	172 (76)			17 (53)	26 (12)		197 (88)	16 (7)
4	25 (11)	196 (82)		45 (20)	45 (9)		10 (4)	16 (7)
5	18 (8)	22 (10)		34 (15)	34 (15)	99 (45)	12 (5)	
6	3 (1)	12 (5)		7 (3)	7 (3)	47 (20)	1 (0)	3 (1)
7	7 (3)	1 (0)	152 (67)	13 (6)	13 (6)	35 (16)	4 (2)	
8		5 (2)	28 (12)	1 (0)	1 (0)	11 (5)		
9	1 (0)	1 (0)	25 (11)	3 (1)		18 (8)		
10			6 (3)			3 (1)		
11			8 (4)			5 (2)		
12			1 (0)			-		
13			2 (1)			1 (0)		
14			1 (0)			1 (0)		
15			1 (0)					
16			2 (1)					
17								
Total N	226	227	226	220	220	220	224	226

<sup>a</sup> The cells for each factor indicating the number and (percent) of cases with the lowest score indicate the number and (percent) that obtained a zero score on the factor (i.e. no reported delinquency).

Two other findings are of special interest, considering the data at this level of analysis. There are significant sex differences in all categories, more males reporting delinquent involvement. This finding is consistent with the official record findings. The one exception is in the face-to-face robbery category wherein 19% of males and 12% of females reported such an episode at least once. Apparently the likelihood of use of "strong-arm methods" to get money and other things from others is the same for females as males, despite the lower likelihood of female theft and actual hitting or attacking others. Beyond the similarity in this category, the absolute level of it striking, apparently 19 percent of males in this sample report having strong-armed others to get what they wanted!

Self-reported delinquent acts

Table 7 provides data on the frequency of the specific delinquent acts that comprise the factors described in the previous Table 6. In general, males report more specific delinquent acts than females, although equal frequencies appear in a few instances. Females are as likely to hit teachers or parents (17% and 8%) as are males (22% and 10%). Also, as noted earlier, females are also as likely as males to commit face-to-face robberies, though absolute levels in this general category are relatively low.

A second observation is that within the broad theft and personal categories, minor subcategories generally are higher than those in the major subcategories. Thus, while there may be high levels of misconduct in this group as they move into and through adolescence, the group as a whole cannot by any definition be

Table 7.

Self-reported delinquent acts of males and females: Number and (percent)

		Males			Females		
		None	Yes/No <sup>a</sup>	Yes/Yes <sup>a</sup>	None	Yes/No	Yes/Yes
Minor Theft	Stole <\$5	138 (70)	26 (13)	32 (16)	189 (83)	23 (10)	15 (7)
	Took Car	159 (81)	24 (12)	14 (7)	215 (95)	6 (3)	5 (2)
	Stole \$5-\$50	149 (76)	28 (14)	18 (9)	200 (88)	17 (7)	10 (4)
Major Theft	Stole Car	182 (92)	13 (7)	2 (1)	221 (97)	6 (3)	0 (0)
	Stole <\$50	169 (86)	15 (8)	13 (7)	219 (96)	5 (2)	3 (1)
	Dealt Stolen Goods	132 (67)	31 (16)	34 (17)	194 (85)	21 (9)	12 (5)
	Break and Enter	165 (84)	19 (10)	12 (6)	217 (96)	8 (4)	2 (1)
Minor Personal	Hit Teachers	154 (78)	35 (18)	8 (4)	189 (83)	23 (10)	15 (7)
	Hit Students	73 (37)	59 (30)	65 (33)	133 (59)	48 (21)	46 (20)
	Hit Parents	176 (90)	14 (7)	6 (3)	108 (92)	10 (4)	9 (4)
Major Personal	Attacked someone	161 (82)	18 (9)	17 (9)	189 (84)	19 (8)	19 (8)
	Gang Fights	156 (79)	25 (13)	16 (8)	213 (94)	9 (4)	5 (2)
	Sexual Attack	182 (93)	8 (4)	6 (3)			
Face-to-Face Robbery	Against Adults	193 (98)	2 (1)	1 (1)	223 (100)	1 (0)	0 (0)
	Against Students	175 (89)	14 (7)	7 (4)	216 (95)	6 (3)	5 (2)
	Against Others	167 (86)	13 (7)	15 (8)	206 (91)	6 (3)	15 (7)
Police Contact	Truancy	155 (79)	28 (14)	13 (7)	215 (95)	8 (4)	4 (2)
	Other	124 (63)	38 (19)	34 (17)	195 (86)	18 (8)	13 (6)

<sup>a</sup>Yes/No indicates a "yes" response for the act the year prior to the interviews or sometime prior to this.

Yes/Yes indicates a "yes" response for the act both the year prior to the interviews and prior to this time

labeled as serious offenders. On the other hand, examination of absolute levels of specific acts suggest the extent to which aggression is part of the lives of a significant minority of such youth. Seventeen percent of females and 22 percent of males report having hit teachers; 41% of females and 63% of males report having hit fellow students; 16% of females and 18% of males report having attacked someone..."with the idea of seriously hurting them."

Theft among males is quite frequently reported, especially in some categories. Between 19% and 30% report minor thefts, with 14% reporting at least one occasion wherein they had stolen more than \$50 and 16% that they had tried to or actually broken into a building or vehicle to steal something; 33% reported having bought, sold or held stolen goods!

Intercorrelations among delinquency factors

Table 8 reports the correlations among the different delinquency factors. Table 9 reports the correlations between the two theft and two personal subcategories (minor and major subcategories) within each major delinquency factor. In general, the correlations are significant, indicating the tendency of youngsters who commit one kind of delinquency to commit another. The correlations are not of sufficient amplitude, however, to justify collapsing separate scores into a single overall self-report delinquency measure.

Table 8

Correlations among delinquency factors for males and females

		<u>Females</u>	
	<u>Theft</u>	<u>Personal</u>	<u>Face-to-Face robbery</u>
	Theft	-	.38 <sup>c</sup> (N=226)
	Personal	.37 <sup>c</sup> (N=192)	-.34 (N=224)
<u>Males</u>	Face-to-Face robbery	.34 <sup>c</sup> (N=193)	.45 <sup>c</sup> (N=193)
			-

- <sup>a</sup> p = .05
- <sup>b</sup> p = .01
- <sup>c</sup> p = .001

Table 9

Correlations between minor and major subcategories of the theft and personal categories of delinquency in both sexes

	<u>Male</u>	<u>Female</u>
Theft categories	.42 <sup>C</sup> (N=194)	.42 <sup>C</sup> (N=226)
Personal sub-categories	.38 <sup>C</sup> (N=194)	.31 <sup>C</sup> (N=227)

- a  $p = .05$
- b  $p = .01$
- c  $p = .001$

Self-reported Attitudes and Beliefs

Attitude toward deviance:

Table 10 represents the findings of the 9-item attitude toward deviance scale. The "scores" column in the table reflects the scale rating range indicating the labels assigned. Thus for males, for example, only 7 respondents out of the 197 (4%) felt that the deviant behaviors were "not wrong at all" or "a little wrong." Only 33, or 16% more, obtained ratings of "wrong." These data indicate that 80% of the males felt deviance "very wrong."

The responses of both males and females are highly skewed in the direction indicating they believed the deviant behavior to be wrong. Such skewness suggests that the measure did not sufficiently discriminate between respondents on this dimension, although why this is the case is not clear. Considering the willingness of these respondents to self-report delinquent acts as well as drug use, the desire to lie or conceal, or make a "good impression" on the interviewer, seems an inadequate explanation. In any case, there is reason to question the utility of the measure for present purposes.

Attitudes toward the police:

The two items defining this dimension correlated significantly with each other: .45 (N=197) in males and .30 (N=225) in females. Total scores varied from 2 to 8, since each item was rated on a 4-point scale.

High Scores indicate positive attitude. As Table 11 indicates, there is a good spread of scores, with an approximate even split in each sex between tending to agree and disagree with police attitude items. Fifty eight percent of males and 53% of females tended not to feel that "policemen try to give all kids an even break" or that the

Table 10

Number and percents of males and females obtaining scores on attitude toward deviance indicating degree respondents felt deviant behaviors were "wrong"

	<u>Males</u>		<u>Females</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Amount of agreement				
Very wrong	157	80	187	83
Wrong	33	16	38	17
A little wrong	4	2	1	0
Not wrong at all	<u>3</u>	<u>2</u>	<u>0</u>	<u>0</u>
	197		226	

Table 11

Number and percent of males and females obtaining scores indicating amount of agreement with positive police attitude items

	<u>Males</u>		<u>Females</u>	
	<u>N</u>	<u>(%)</u>	<u>N</u>	<u>(%)</u>
Strongly agree	18	(9)	11	(5)
Agree	66	(33)	94	(42)
Disagree	90	(46)	107	(47)
Strongly disagree	<u>23</u>	<u>(12)</u>	<u>13</u>	<u>(6)</u>
	197		225	

Philadelphia police had their respect.

Normlessness:

Three areas of normlessness were measured: family (4 items), school (5 items) and law (1 item). Since each was rated on a 4-item scale from "strongly agree", to "strongly disagree," the range of scores were 4 to 16 for family, 5 to 20 for school, and 1 to 4 for law. High scores indicate high normlessness in the area.

As Table 12 suggests, most of the youngsters in both sexes disagreed with statements suggesting normlessness, but a spread of scores emerged sufficient for statistical purposes. For both family and school, the 50th percentile points indicate approximately an average rating of "disagree." On the other hand, between 10 and 20% of youngsters tended on the average to agree with "normlessness" statements or be at the middle point of the scale, the remainder varying between agreeing and disagreeing. There are no striking sex differences. Thirty five percent of males and 37% of females obtained scores indicating agreement with items expressing normlessness regarding the law.

Table 13 indicates some consistency in normlessness scores across content areas for both sexes. Thus, a youngster who tends not to feel an obligation and/or commitment to teachers, or school work when these come into conflict with peer values, will tend not to feel commitment to parents or lawful behavior.

Identification with parents/family and school values:

The same 4- point scale from "strongly agree" to "strongly disagree" was used in ratings of degree of identification with parent/family values (5 items) and the values associated with school success

Table 12

Normlessness scores on family, school and law items for each sex separately

Scores	Family		School		Law	
	<u>M</u> N (%)	<u>F</u> N (%)	<u>M</u> N (%)	<u>F</u> N (%)	<u>M</u> N (%)	<u>F</u> N (%)
1					37 (19)	50 (22)
2					91 (46)	94 (41)
3					58 (29)	70 (31)
4	8 (4)	9 (4)			11 (6)	13 (6)
5	9 (5)	24 (11)	0 (0)	11 (5)		
6	22 (11)	31 (14)	9 (5)	19 (8)		
7	30 (15)	41 (18)	12 (6)	10 (4)		
8	39 (20)	45 (20)	25 (13)	34 (15)		
9	49 (25)	28 (12)	43 (22)	32 (14)		
10	19 (10)	27 (12)	25 (13)	45 (20)		
11	12 (6)	8 (4)	29 (15)	29 (13)		
12	4 (2)	12 (5)	22 (11)	22 (10)		
13	3 (2)	2 (1)	14 (7)	10 (4)		
14	2 (1)	0 (0)	12 (6)	7 (3)		
15	0 (0)	0 (0)	2 (1)	7 (3)		
16	0 (0)	0 (0)	3 (2)	1 (0)		
Total N	197	227	196	227	197	227
25th %ile	6.33	5.77	8.09	7.47	1.13	1.07
50th %ile	7.75	7.20	9.39	9.15	1.67	1.68
75th %ile	8.80	8.75	11.18	10.67	2.35	2.39

Intercorrelations among normlessness scores  
for each sex separately<sup>a</sup>

		<u>Females</u>		
		<u>Family</u>	<u>School</u>	<u>Law</u>
<u>Males</u>	<u>Family</u>	-	.56 (N=227)	.38 (N=227)
	<u>School</u>	.48 (N=196)	-	.35 (N=227)
	<u>Law</u>	.27 (N=196)	.3 (N=196)	-

<sup>a</sup> All correlations are significant at  $p = .001$

(5 items). As Table 14 suggests, both distributions are highly skewed to agreement with these "positive" values. Practically all youngsters obtained average scores indicating "somewhat important" to "very important" in their ratings of value identification. Despite these heavily skewed distributions, the correlations between family and school identification scores were significant (.40 in males and .33 in females), indicating that some consistency in ratings was present even within the narrow rating range used. The narrow range of scores, however, raises question as to the sensitivity of these measures of value identification with the present youngsters.

Table 14

Commitment to family and school scores  
for each sex separately

Scores	Family		School	
	Males N(%)	Females N(%)	Males N(%)	Females N(%)
7			1 (1)	
8				
9			1 (1)	
10				
11		1 (0)	3 (2)	
12	3 (2)	0 (0)	1 (1)	1 (0)
13	0 (0)	0 (0)	5 (3)	3 (1)
14	2 (1)	1 (0)	11 (6)	9 (4)
15	3 (2)	6 (3)	13 (7)	16 (7)
16	7 (4)	7 (3)	24 (12)	26 (12)
17	18 (9)	21 (9)	38 (19)	36 (16)
18	38 (19)	27 (12)	42 (21)	49 (21)
19	56 (29)	54 (24)	33 (17)	43 (19)
20	69 (35)	110 (48)	25 (13)	44 (19)
Total	196	227	197	226
25th %ile	17.42	17.75	15.58	16.06
50th %ile	18.48	18.92	17.05	17.46
75 %ile	19.29	19.48	18.25	18.68

School aspiration:

Table 15 indicates the percentages of males and females who said they aspired to various levels of academic or training experience. It is of interest to note that one-half the males and 62% of females said they aspired to some college training; 37% of males said they would like eventually to complete four years of college, as did 48% of females. This distribution would seem usable for statistical purposes, if one assumes that aspiration for college education indicates greater aspiration than for other forms of education/training.

Table 15

Levels of scholastic aspiration indicated by each sex in percents

<u>Level</u>	<u>Males</u>	<u>Females</u>
I have enough now (without high school graduation)	2	0
High school graduation	12	14
On the job apprenticeship	9	4
Trade or business school	27	19
Some college or junior college	13	14
College graduation (4 years of college)	37	48

Delinquency in School (Pink Slips)

Number of pink slips in grades 8-10:

While pink slips were available for analysis between the 8th and 10th grades, analyses only considered 8th - 10th grade findings. Analysis of 11th grade pink slips revealed a significant reduction in the number, suggesting either a significant change in school policy regarding their use and/or a selective attention (i.e. loss) of students prove to get them. In either case, it was judged best to stop analysis in 10th grade.

Table 1 presents the number and percent of youngsters receiving pink slips from grades 8-10. In general there is a consistency from grade to grade, with a range of 33% to 44% of youngsters receiving at least one pink slip each year. The only change with time is a slight decrease in the percent of youngsters receiving four or more, suggestion either a shift in standard for giving slips, or attrition of youngsters who might be labeled as serious troublemakers.

Tables 2. and 3 provide data on number and percent of pink slips for minor and major delinquent offenses for both sexes. Again, consistency prevails, there being no dramatic shift from grade to grade in frequency of different numbers of pink slips for males or females, or for minor or major offenses. Nor are there dramatic sex differences, though there is a slight tendency for more males than females to get pink slips.

Table 1

Number and percent of youngsters receiving pink slips in grades 8-10 for each sex separately

No. Pink Slips	Grade					
	8		9		10	
	Males N (%)	Females N (%)	Males N (%)	Females N (%)	Males N (%)	Females N (%)
0	126 (56)	150 (67)	141 (63)	166 (71)	111 (67)	122 (66)
1	32 (14)	22 (10)	30 (13)	31 (13)	24 (15)	37 (20)
2	16 (7)	14 (6)	13 (6)	12 (5)	13 (8)	15 (8)
3	16 (7)	5 (2)	11 (5)	8 (3)	9 (5)	6 (3)
4+	33 (15)	33 (14)	29 (12)	17 (6)	8 (5)	6 (4)
Totals	223a	218a	224a	234a	165a	186a

<sup>a</sup>Total for each grade is the number of pink slip files searched that year.

Table 2

Number and percent of male youngsters receiving pink slips in grades 8-10 for minor and major offenses

No. Pink Slips	Grade					
	8		9		10	
	Minor N (%)	Major N (%)	Minor N (%)	Major N (%)	Minor N (%)	Major N (%)
0	138 (65)	145 (68)	161 (72)	156 (70)	128 (78)	121 (73)
1	27 (13)	22 (10)	24 (11)	23 (10)	20 (12)	22 (13)
2	12 (6)	17 (8)	11 (5)	17 (8)	8 (5)	11 (7)
3	8 (4)	12 (6)	9 (4)	5 (2)	5 (3)	6 (4)
4+	28 (12)	17 (5)	19 (8)	23 (10)	4 (3)	5 (3)
Totals	213a	213a	224a	224a	165a	165a

<sup>a</sup>Total for each year is the number of pink slip files searched each year.

Table 3

Number and percent of female youngsters receiving pink slips in grades 8-10 for minor and major offenses

No. Pink Slips	Grade					
	8		9		10	
	Minor N (%)	Major N (%)	Minor N (%)	Major N (%)	Minor N (%)	Major N (%)
0	158 (77)	162 (79)	176 (75)	182 (78)	141 (77)	143 (79)
1	17 (8)	16 (8)	26 (11)	29 (12)	29 (16)	23 (13)
2	8 (4)	7 (3)	12 (5)	9 (4)	9 (5)	8 (4)
3	3 (1)	8 (4)	11 (5)	5 (2)	0 (0)	5 (3)
4+	19 (7)	12 (4)	9 (3)	9 (3)	3 (2)	2 (2)
Totals	205a	205a	234a	234a	182a	182a

<sup>a</sup>Total for each grade is the number of pink slip files searched each year.

Tables 4 and 5 indicate the number and percent of pink slips obtained over consecutive two-year periods. Consecutive years rather than grades were used to control for youngsters left back in a grade. While analyzed in part to discover whether enough case files were searched two years in a row to allow of use of such data in subsequent statistical tests, results enrich the picture of school delinquency in general. First, over a two year period a greater percent of youngsters received at least one pink slip. Further, the percent of multiple pink slips increases significantly. During years 1976-1978, 33% of the males and 22% of females received four or more pink slips, and while later data (1977 - 1979) indicate a slight decrease in rate (due to altered policy for giving pink slips on selective attention), the absolute levels are high. For a significant minority of youngsters, offenses in school leading to being sent out of the classroom are repeated phenomena. The data suggest that more youngsters have the experience as the years progress, and some youngsters have the experience repeatedly.

Correlations between measures from year to year:

The data in Table 6 address the issue of repeated pink slips from year to year. The table presents year to year (rather than grade to grade) information to control for youngsters who repeated grades. Data on both total number of pink slips and total pink slip offense scores were also analyzed to examined which may prove to be a better (more

Table 4

Number and percent of youngsters receiving pink slips over the two year period 1976-1978 for each sex separately

<u>No. pink slips</u>	<u>Males</u>		<u>Females</u>	
	<u>N</u>	<u>(%)</u>	<u>N</u>	<u>(%)</u>
0	80	(38)	113	(53)
1	29	(14)	26	(12)
2	19	( 9)	11	( 5)
3	13	( 6)	17	( 8)
4	12	( 6)	3	( 2)
5+	56	(27)	43	(20)
	209 <sup>a</sup>		213 <sup>a</sup>	

<sup>a</sup>Total equals number of youngsters whose pink slip files were searched two years in a row.

Table 5

Number and percent of youngsters receiving pink slips over the two year period 1977-1979 for each sex separately

<u>No. pink slips</u>	<u>Males</u>		<u>Females</u>	
	<u>N</u>	<u>(%)</u>	<u>N</u>	<u>(%)</u>
0	91	(47)	104	(51)
1	33	(17)	41	(20)
2	20	(10)	17	( 8)
3	10	( 5)	10	( 5)
4	7	( 4)	10	( 5)
5+	34	(17)	20	(10)
	195 <sup>a</sup>		202 <sup>a</sup>	

<sup>a</sup>Total equal number of youngsters whose pink slip files were searched two years in a row.

Table 6

Correlations between total number and total offense scores for pink slips from year to year, for each sex<sup>d</sup>

	Total offense Scores				Total offense Scores		
	1976	1977	1978		1976	1977	1978
<u>No. Pink Slips</u>	1976	.30 <sup>c</sup>	.26 <sup>c</sup>	<u>No. Pink Slips</u>	1976	.29 <sup>c</sup>	.08
	1977	.04	.25 <sup>c</sup>		1977	-.01	.19 <sup>b</sup>
	1978	-.06	.25 <sup>b</sup>		1978	.04	.16 <sup>a</sup>

<sup>a</sup><sub>p</sub> = .05

<sup>b</sup><sub>p</sub> = .01

<sup>c</sup><sub>p</sub> = .001

<sup>d</sup>Ns varied between 150 and 200 for the correlation in the table

reliable) measure for subsequent analyses.

The data indicate a significant consistency from year to year in both sexes when total offense score is used, but only between 1977 and 1978 when total number of pink slips is used as the measure of school delinquency. That total offense score might be a more sensitive measure is reasonable considering the fact that it incorporates both the issues of frequency and seriousness of offenses. In this sense it has the same merits as the total seriousness of police contact score relative to the total number of police contacts score taken alone. The data also indicate greater consistency in males than females. In males, the correlation of total offense scores is significant over a two-year period. These findings on consistency further support the idea of chronic offenders.

Department Grades

Prior analyses of distributions of department grades has indicated that such grades are normally distributed, with the average grade, on a scale from A to E, being C, (Spivack, Rapsher, Cohen & Gross 1977). When these ratings are compared separately for sex (see Table 16), there is consistency through the years between 1972 (4th grade) and 1978 (10th grade) for females to obtain better department grades than boys.

Table 17 reports on the correlations among department grades over the six year period, from 4th through 10th grade, for each sex. Two facts emerge from analyses of the table. The first is that there is a significant tendency for department behavior from one year to the next to be related. A youngster who is generally well-behaved or a management problem in school in 4th grade is likely to be so years later. While one might argue that the correlations are not strikingly high, most being in the 30's and 40's, it is also true that these grades were assigned by different teachers, in different courses, over a six year period. Given these facts, such correlations are not to be judged as minor in significance. The willingness or capacity of youngsters to comply with acceptable codes of classroom conduct is in large part a function of the youngster.

It is also of interest that while in general the amplitude of the correlations diminish as the length of time interviewing between ratings increases, this drop is usually not great. In fact, the correlations between scores in 1972 and 1978 are as high as most of the correlations between adjacent years. This relative constancy suggests that by the 4th grade the youngsters' patterns of conduct are usually set, and continue on well into high school.

Table 16

Department grades between 1972 and 1978 for each sex separately <sup>a</sup>

Year	Male			Female		
	M	(SD)	N	M	(SD)	N
1972	5.0	(2.2)	204	6.4	(1.9)	208
1973	5.0	(2.3)	196	6.3	(1.9)	187
1974	5.4	(2.1)	209	6.3	(2.0)	187
1975	5.3	(1.9)	176	6.1	(1.9)	172
1976	5.4	(2.1)	209	6.1	(2.0)	211
1977	5.6	(2.2)	171	6.2	(2.3)	176
1978	5.8	(2.6)	131	6.7	(2.4)	130

<sup>a</sup> A=9, B+=8, B=7, C+=6, C=5, D+=4, D=3, E+=2, E=1 department grade

Table 17

Inter correlations among department grades over the years  
Females

	1972	1973	1974	1975	1976	1977	1978
1972		.39 (170)	.41 (168)	.48 (139)	.21 (176)	.37 (142)	.42 (110)
1973	.43 (165)		.49 (168)	.48 (126)	.36 (157)	.28 (124)	.20 (100)
<u>Males</u> 1974	.32 (176)	.49 (181)		.45 (131)	.28 (163)	.41 (130)	.20 (99)
1975	.25 (138)	.38 (132)	.39 (142)		.40 (142)	.46 (119)	.35 (84)
1976	.34 (160)	.43 (158)	.33 (171)	.50 (148)		.44 (144)	.31 (103)
1977	.27 (135)	.37 (130)	.30 (141)	.41 (113)	.34 (148)		.42 (99)
1978	.40 (102)	.27 (101)	.33 (106)	.42 (91)	.29 (103)	.35 (97)	

<sup>a</sup> All correlations are significant at at least p=.01 level; the numbers in

TRAS CONDUCT DISTURBANCE

The TRAS "conduct disturbance" measure indicates the extent to which the individual reveals poor emotional control, un-cooperative - disobedient behavior, and quarrelsome - assertive behavior in the classroom, as rated by the teacher. These five point ratings were made with a rating of "3" defining "what one expects of a young person this age."

Table 18 describes the means and standards deviation of ratings of males and females over three years for this 3-item grouping. (These years correspondent to grades 9-11.) One would expect a mean of 9 (3 items, each with an "average" score of 3), but the means vary around 6. This is explained by the fact that one item deals with assaultive behavior, which is relatively rare even in urban high schools. The distributions however indicate that scores are not skewed, and thus are quite usable in subsequent analyses. The fact that means of males and females do not differ significantly does not indicate no difference in absolute levels of this behavior, since the rating task was to compare each youngster with others that age and (by assumption) sex.

Table 19 describes the relationships between TRAS conduct disturbance scores in English and Math classes, for each sex separately. Despite the different classroom subject, teacher, and peer groups, the behavior scores are all significant. The significant correlations suggest that scores reflect a constant element across situation revealing something about the person's adaptation to the demands of a classroom situation.

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Table 18

Means and standard deviations on TRAS conduct disturbance measure in English class for years 1977, 1978, and 1979.

Years	Males	Females
1977	6.43 (3.11)	5.88 (3.26)
1978	6.04 (3.10)	5.84 (3.02)
1979	5.38 (2.80)	5.49 (2.54)

Table 19

Correlations between English and Math TRAS conduct disturbance scores within years 1977, 1978, 1979 for males and females.

Subject-year	Subject-year					
	Math 1977		Math 1978		Math 1979	
	M	F	M	F	M	F
English 1977	.35 <sup>c</sup> (140)	.48 <sup>c</sup> (155)				
English 1978			.40 <sup>c</sup> (114)	.20 <sup>b</sup> (104)		
English 1979					.35 <sup>c</sup> (74)	.36 <sup>c</sup> (81)

<sup>a</sup> p=.05

<sup>b</sup> p=.01

<sup>c</sup> p=.001

**CONTINUED**

**1 OF 3**

Table 20 provides correlations between TRAS conduct disturbance scores over consecutive years in high school, in English classes. For both sexes, the correlations between years 1977 and 1978 are significant, suggesting consistency across time in the quality being tapped by the TRAS measure. In both sexes, however, the correlations over a two-year period are not significant, and only the correlation among males between 1978 and 1979 ratings is significant (though still lower than that between 1977 and 1978). There is no obvious reason why the 1978-1979 correlation among females fails to reach statistical significance. In general, the findings suggest there is consistency in conduct disturbance classroom behavior across situation and over a one-year period, though not over two years. The measure in general would seem to warrant use in further statistical analyses.

Correlations between periods of years of the TRAS conduct disturbance measure in English Classes.<sup>d</sup>

<u>Subject-year</u>	<u>Subject Year</u>		
	<u>English 1977</u>	<u>English 1978</u>	<u>English 1979</u>
English 1977		.39 <sup>c</sup> (116)	.17 (116)
English 1978	.38 <sup>c</sup> (126)		.16 (97)
English 1979	.13 (111)	.26 <sup>b</sup> (91)	

a p=.05

b p=.01

c p=.001

d Above the diagonal in the table are female scores and below are male scores.

HAHNEMANN HIGH SCHOOL BEHAVIOR RATING SCALE SCORES  
ON THE "DELINQUENCY SCALE"

Table 21 describes the percent of males and females in the sample who obtained HHSB scores that were average or lower, and excessively high on the delinquency scale from grades 8-11. The scale measures degree to which each youngster was restless and disturbing in the English class as well as being generally negative about school, peers and toward the teacher.

For males, there is a significant drop in the percent of youngsters obtaining an excessively high score, from 27% in grade 8 to between 15 and 16% in later grades. There is no obvious explanation for this drop.

In general the evidence suggests that between 15 and 27% of males exhibited excessively high scores sometime during this period (when they were between the ages of 13 and 16), while between 9 and 19% of girls did likewise. The implication is that in the average class the English teacher had to cope with at least 5 or 6 youngsters whose excessively restless, annoying and negative behavior and attitudes not only interfered with their own work but that of others. It is also important to note that an excessively high score in this instance is relative to a center city, urban set of norms. By such norms, even high average scores would indicate restless and negative behaviors in excess of what is the norm for non-urban, suburban communities.

Table 21

Percent of Hahnemann High School Behavior Rating Scale delinquency scores reaching average and high scale norms in English classes between grades 8 and 11 for males and females separately.

	<u>Grade</u>							
	8		9		10		11	
	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>
Average or less	41%	40%	50%	66%	59%	62%	68%	67%
High scores ( >+ 1SD) <sup>a</sup>	27%	15%	14%	11%	15%	19%	15%	9%

<sup>a</sup> A score to fit into this category exceeded + 1 standard deviation in the distribution of scores in the center city standardization group for the HHSB scale.

COMMUNITY MENTAL HEALTH CENTER AND COUNSELOR CONTACT  
FOR EMOTIONAL PROBLEMS

Table 22 provides information about initial contacts with CMH/MR Centers in the City of Philadelphia. Ages of first contact were most frequent at 10 and 11, and then again at age 15. This bimodal distribution closely parallels that for police contact, with the exception of an early CMH contact peak at age 10 in comparison with the first police contact initial peak at age 11.

School records indicated only 38 youngsters with a counselor contact at school during the elementary grades wherein the counselor reported an "emotional problem" as the primary reason for the contact or element in the counseling session. While there were too few cases to warrant a table, most were during the primary and middle years.

Table 22

Community Mental Health Center contacts  
as a function of age of first contact<sup>a</sup>

	8	9	10	11	12	13	14	15+	No age information available
N(%)	4(6)	2(3)	11(17)	13(20)	6(9)	5(8)	8(8)	16(25)	3(5)

<sup>a</sup>The group consists of 40 males and 25 females

SELF-REPORTED SYMPTOMS OF WELL-BEING

Table 23 presents percentile scores for each of the psychological well-being constructs. Responses range across six levels, where 4 is "not at all" and 24 is "very, very much" for the anger, anxiety and depression constructs. Responses for the hope construct range across six levels where 6 is "not at all" and 36 is "very very much." The distribution of raw scores is skewed toward the lower end-point of the scale for anger, anxiety and depression and toward the upper end for hope. As is seen in Table 23, 50% of both males and females view themselves as experiencing "very little" or less anger, anxiety and depression and "very much" hope. It is possible that the students either may not have been in touch with their feelings or wanted to minimize the intensity of them. With the hope construct, it may be that they wanted to be viewed more positively.

The psychological well-being construct scores were intercorrelated. Table 24 shows that, although the distribution of raw scores was skewed, the constructs of anger, anxiety and depression are significantly correlated among both males and females in the predicted positive direction. The hope construct is significantly related with only the depression factor in the male group, and with depression and anger in the female group. Anger, anxiety and depression seem to be measuring similar aspects of psychological well-being, but the correlations are not high enough to combine the constructs into a single score. Separate scores for each of the four constructs are used as the dependent variables in subsequent analyses.

Table 23  
Total Scores of Psychological Well-Being at Three  
Percentile Points for Males (N=197) and Females (N=226)

Constructs	Percentiles		
	25	50	75
Anger			
Male	7.40	9.31	11.88
Female	7.46	9.55	12.29
Anxiety			
Male	6.43	8.73	10.82
Female	6.75	9.80	12.00
Depression			
Male	4.00	5.39	7.27
Female	4.00	5.67	8.29
Hope			
Male	24.00	27.67	30.83
Female	24.50	27.67	30.56

Table 24  
Correlation Matrix of Psychological Well-Being Constructs<sup>d</sup>

Psychological Well-Being Construct	Females			
	Anger	Anxiety	Depression	Hope
Anger		.30 <sup>c</sup> (225)	.25 <sup>c</sup> (225)	-.21 <sup>c</sup> (225)
Anxiety	.29 <sup>c</sup> (196)		.51 <sup>c</sup> (221)	-.10 (225)
Depression	.33 <sup>c</sup> (196)	.38 <sup>c</sup> (196)		-.33 <sup>c</sup> (225)
Hope	.02 (197)	.06 (196)	-.12 <sup>a</sup> (196)	

a p < .05

b p < .01

c p < .001

<sup>d</sup> Above the diagonal in the table are female scores and below are male scores.

TRAS NEUROTIC WITHDRAWAL/TIMIDITY

The TRAS "neurotic withdrawal" measure indicates the extent to which the individual reveals socially withdrawn, timid-shy-fearful behaviors, and (conversely) is not outgoing and friendly with peers. The measure combines what could be viewed as "intro-spective", non-extraverted qualities with qualities of social anxiety and reticence with people. Each of the three items were rated on a 5-point scale, with "3" defining what one expects of a young person this age. Since high scores on two items indicate high withdrawn/timid behaviors, and the third item is in the reverse direction (a high score indicating social outgoingness and friendliness), the total "average" score should be about 3, since the average total for the former two items had the score of the third (reversed) item subtracted from it.

Table 25 presents the means and standard deviations of males and females, over the years 1977-1979. For both sexes, the means are approximately at expected levels (around "3"), and the standard deviations indicate sufficient variability to suggest a usable measure.

Table 26 describes the relationships between TRAS neurotic withdrawal scores in English and Math classes at the same points in time, for each sex separately. Despite the different classroom subject matter, teacher, and peer group, the correlations are all significant, indicating that the quality being measured reflects a constant across situation, and thus a property of the individual that is measurable.

Table 25

Means and Standard Deviations on TRAS Neurotic  
Withdrawal Measure in English classes for the Years 1977, 1978, and 1979

Years	Males		Females	
	M	SD	M	SD
1977	3.51	(3.01)	2.37	(3.00)
1978	4.08	(3.09)	4.17	(3.05)
1979	4.14	(3.05)	3.45	(3.00)

Table 26

Correlations Between English and Math TRAS Neurotic Withdrawal Scores  
Within Years 1977, 1978 and 1979 for Males & Females

Subject-year	Subject - year					
	Math 1977		Math 1978		Math 1979	
	M	F	M	F	M	F
English 1977	.42 <sup>c</sup> (156)	.48 <sup>c</sup> (163)				
English 1978			.24 <sup>b</sup> (111)	.22 <sup>b</sup> (105)		
English 1979					.38 <sup>c</sup> (102)	.33 <sup>c</sup> (97)

a<sub>p</sub> = .05  
b<sub>p</sub> = .01  
c<sub>p</sub> = .001

Table 27 provides correlations between this measure taken in English classes over a three year period. All correlations are in the predicted direction, and five of the six are significant. Thus while modest in size the correlations suggest that the social withdrawn-timid quality in question is a property that carries over in time, one that characterizes the person and is not totally circumstantial. In general, the data suggest the TRAS measure warrants use in further statistical analyses.

Table 27

Correlations Between Pairs of Years of the TRAS  
Neurotic Withdrawal Measure in English Classes<sup>d</sup>

Subject-year	Subject-year		
	English 1977	English 1978	English 1979
English 1977		.27 <sup>c</sup> (115)	.30 <sup>c</sup> (118)
English 1978	.22 <sup>b</sup> (127)		.47 <sup>c</sup> (97)
English 1979	.13 (106)	.25 <sup>b</sup> (89)	

a p = .05  
b p = .01  
c p = .001

<sup>d</sup> Above the diagonal in the table are female scores and below are male scores

ACADEMIC ACHIEVEMENT TEST PERFORMANCE

Second Grade:

The Stanford Achievement Test was administered during the second half of the second grade. The data in Table 28 on reading levels reveals that among the 250 girls, 18 percent were achieving about as would be expected at the upper half of the second grade level (2.6 - 2.9). Of the 221 boys 13 percent were functioning in this fashion. Underachievement was being demonstrated by 70 percent of the girls and 79 percent of the boys in that their achievement scores were in the lower second grade or below. A very small proportion of the sample (8 percent of the boys and 12 percent of the girls) were advanced academically as measured by the Stanford Achievement Test. These data clearly indicate that as early as the second grade, the large majority of this cohort was scoring well below norms on such a standardized achievement test.

Third Grade:

The Iowa Achievement Test was administered during the latter half of the third grade. The reading data in Table 29 indicate that 10 percent of the girls and 7 percent of the boys were reading at grade level, with 71 percent of girls and 82 percent of boys under-achieving. Nineteen percent of girls and 11 percent of boys were reading above expected levels as determined by national norms. These findings relative to national norms are similar to those discussed above for the second grade.

Table 28

Stanford Achievement Test (Reading)  
(Second Grade)

Grade Level Achieved	Sex of Child	
	Female N (%)	Male N (%)
1.0 - 1.5	15 (6)	13 (6)
1.6 - 1.9	92 (38)	97 (43)
2.0 - 2.5	64 (26)	66 (30)
2.6 - 2.9	46 (18)	29 (13)
3.0 - 3.5	22 (9)	8 (4)
3.6 - 3.9	6 (2)	2 (1)
4.0 - 4.5	2 (1)	2 (1)
4.6 - 4.9	--	2 (1)
5.0 - 5.5	--	2 (1)
5.6 - 5.9	1 (0)	--
6.0 - 6.5	1 (0)	--
6.6 - 6.9	--	--
7.0 - 7.5	1 (0)	--
<b>TOTAL</b>	<b>250 (100)</b>	<b>221 (100)</b>

Table 29

Iowa Achievement Test (Reading)  
(Third Grade)

Grade Level Achieved	Sex of Subject	
	Female f (%)	Male f (%)
1.0 - 1.5	4 (2)	11 (5)
1.6 - 1.9	16 (7)	23 (11)
2.0 - 2.5	75 (30)	75 (35)
2.6 - 2.9	29 (12)	36 (17)
3.0 - 3.5	48 (20)	30 (14)
3.6 - 3.9	24 (10)	15 (7)
4.0 - 4.5	27 (11)	14 (7)
4.6 - 4.9	12 (5)	2 (1)
5.0 - 5.5	8 (3)	5 (2)
5.6 - 5.9	1 (0)	2 (1)
6.0 - 6.5	1 (0)	1 (0)
<b>TOTAL</b>	<b>245 (100)</b>	<b>214 (100)</b>

Grades 5 - 11

Tables 30 and 31 provide evidence of achievement test performance on the California Achievement Test (English) between grades 5 and 11 for each sex separately. If one considers scores within the 40 - 49 percentile category or lower as an indication of underachievement, both tables indicate a relatively consistent 75 - 85 percent of boys and girls underachieving. This underachieving rate closely matches data from earlier grades. Considering the probability that "drop-outs" from school who were not tested in later high school grades would have achieved low scores, it is possible that the underachievement rate in later grades as reported in these tables underestimates the true state of affairs. Regrettably, no data is available to clarify this issue.

Correlations between measures from year to year:

Grade to grade correlations for group test scores in Reading or English are displayed in Table 32. As already noted, the tests were administered as part of the city-wide testing program: the Philadelphia Readiness Test (PRT-kindergarten), the Stanford Achievement Test (STAN-grade 2), the Iowa Achievement Test (Iowa-grade 3) and the California Achievement Test (CAT at grades 5-11). All but the PRT were part of a national testing program. These data are based on varying sample sizes. The smaller sample sizes in grades 10 and 11 are due to drop-out attrition.

The most striking detail is the level of correlations between earlier testing in kindergarten, second and third grades, and later test scores. The correlations are unusually significant (with rare exception) at the .001 level. This is true for both boys and girls.

Table 30  
California Achievement Test - English

Frequencies & Percents of Test Scores at Grades 5 through 11 for Females

GRADES		5th	6th	7th	8th	9th		10th	11th	
SCORES		N (%)	N (%)	N (%)	N (%)	N (%)		N (%)	N (%)	
0-9		41 (20)	33 (15)	46 (20)	41 (19)	30 (15)		23 (15)	23 (26)	
10-19		41 (20)	36 (16)	40 (18)	58 (27)	49 (24)		36 (23)	24 (27)	
20-29		38 (18)	35 (16)	39 (17)	32 (15)	30 (15)		23 (15)	11 (12)	
30-39		34 (16)	29 (13)	35 (15)	24 (11)	25 (12)		16 (10)	7 (8)	
40-49		16 (8)	30 (14)	19 (8)	18 (8)	14 (7)		18 (12)	8 (9)	
50-59		13 (6)	17 (8)	15 (7)	17 (8)	12 (6)		10 (7)	3 (3)	
60-69		8 (4)	16 (7)	14 (7)	10 (5)	17 (8)		14 (9)	4 (4)	
70-79		6 (4)	10 (5)	12 (5)	9 (4)	9 (4)		8 (5)	6 (7)	
80-89		4 (2)	8 (4)	4 (2)	5 (2)	17 (8)		1 (1)	4 (4)	
90-99		6 (3)	7 (3)	4 (2)	5 (2)	2 (0)		5 (3)		
100										
TOTAL		207 (101)	221 (101)	228 (101)	219 (101)	205 (99)		154 (100)	90 (100)	

Table 31  
California Achievement Test - English Percentage Scores

Frequencies & Percents of Test Scores at Grades 5 through 11 for Males

Grades

	5th	6th	7th	8th	9th		10th	11th	
Per- centile	N (%)	N (%)	N (%)	N (%)					
0-9	58 (19)	56 (26)	67 (32)	70 (32)	41 (24)		39 (30)	19 (22)	
10-19	38 (19)	54 (25)	47 (22)	40 (19)	31 (18)		19 (15)	19 (22)	
20-29	28 (14)	20 (9)	27 (13)	27 (13)	23 (13)		18 (14)	19 (22)	
30-39	25 (13)	28 (13)	14 (7)	25 (12)	19 (11)		12 (9)	9 (10)	
40-49	12 (6)	20 (9)	11 (5)	18 (8)	22 (13)		15 (11)	8 (9)	
50-59	14 (7)	8 (4)	13 (6)	8 (4)	6 (3)		7 (5)	3 (3)	
60-69	7 (4)	13 (6)	19 (9)	12 (6)	14 (8)		9 (7)	3 (3)	
70-79	7 (4)	5 (2)	3 (1)	8 (4)	8 (5)		2 (2)	3 (3)	
80-89	6 (3)	7 (3)	5 (2)	6 (3)	7 (4)		9 (7)	3 (3)	
90-99	4 (2)	5 (2)	3 (1)	2 (0)	2 (1)		1 (0)		
100									
TOTAL	199 (100)	216 (100)	209 (100)	216 (100)	173 (100)		131 (100)	86 (100)	

Table 32  
Reading and English Test Scores - Correlations Between Grades K-11

Females

	K PRT	2nd Grade STAN R	3rd Grade IOWA R	5th Grade CAT E	6th Grade CAT E	7th Grade CAT E	8th Grade CAT E	9th Grade CAT E	10th Grade CAT E	11th Grade CAT E
Phila. Readiness Test PRT Kindergarten		.41 <sup>c</sup> (204)	.42 <sup>c</sup> (198)	.32 <sup>c</sup> (161)	.37 <sup>c</sup> (173)	.38 <sup>c</sup> (176)	.43 <sup>c</sup> (174)	.39 <sup>c</sup> (158)	.41 <sup>c</sup> (121)	.43 <sup>c</sup> (67)
Stanford Reading 2nd Grade	.39 <sup>c</sup> (178)		.37 <sup>c</sup> (230)	.37 <sup>c</sup> (184)	.38 <sup>c</sup> (196)	.42 <sup>c</sup> (201)	.47 <sup>c</sup> (193)	.39 <sup>c</sup> (180)	.42 <sup>c</sup> (140)	.30 <sup>c</sup> (79)
IOWA Reading 3rd Grade	.45 <sup>c</sup> (169)	.42 <sup>c</sup> (195)		.51 <sup>c</sup> (182)	.56 <sup>c</sup> (193)	.54 <sup>c</sup> (198)	.60 <sup>c</sup> (185)	.54 <sup>c</sup> (173)	.50 <sup>c</sup> (136)	.45 <sup>c</sup> (77)
California Achieve. Test 5th Grade-English CAT	.32 <sup>c</sup> (139)	.36 <sup>c</sup> (154)	.41 <sup>c</sup> (157)		.70 <sup>c</sup> (189)	.67 <sup>c</sup> (191)	.67 <sup>c</sup> (177)	.69 <sup>c</sup> (166)	.71 <sup>c</sup> (128)	.70 <sup>c</sup> (71)
California Achieve. Test 6th Grade-English CAT	.48 <sup>c</sup> (149)	.48 <sup>c</sup> (165)	.49 <sup>c</sup> (167)	.71 <sup>c</sup> (186)		.69 <sup>c</sup> (211)	.74 <sup>c</sup> (199)	.72 <sup>c</sup> (181)	.61 <sup>c</sup> (131)	.73 <sup>c</sup> (72)
California Achieve. Test 7th Grade-English CAT	.48 <sup>c</sup> (147)	.40 <sup>c</sup> (161)	.46 <sup>c</sup> (163)	.68 <sup>c</sup> (174)	.75 <sup>c</sup> (193)		.81 <sup>c</sup> (203)	.80 <sup>c</sup> (186)	.73 <sup>c</sup> (139)	.78 <sup>c</sup> (77)
California Achieve. Test 8th Grade-English CAT	.42 <sup>c</sup> (149)	.26 <sup>c</sup> (166)	.43 <sup>c</sup> (169)	.61 <sup>c</sup> (176)	.75 <sup>c</sup> (187)	.82 <sup>c</sup> (187)		.83 <sup>c</sup> (187)	.76 <sup>c</sup> (137)	.81 <sup>c</sup> (76)
California Achieve. Test 9th Grade-English CAT	.41 <sup>c</sup> (120)	.41 <sup>c</sup> (133)	.43 <sup>c</sup> (132)	.58 <sup>c</sup> (141)	.67 <sup>c</sup> (152)	.79 <sup>c</sup> (151)	.81 <sup>c</sup> (159)		.77 <sup>c</sup> (142)	.79 <sup>c</sup> (81)
California Achieve. Test 10th Grade-English CAT	.42 <sup>c</sup> (90)	.42 <sup>c</sup> (102)	.42 <sup>c</sup> (103)	.59 <sup>c</sup> (104)	.80 <sup>c</sup> (114)	.81 <sup>c</sup> (114)	.84 <sup>c</sup> (117)	.87 <sup>c</sup> (106)		.82 <sup>c</sup> (74)
California Achieve. Test 11th Grade-English CAT	.17 <sup>N.S.</sup> (63)	.39 <sup>c</sup> (71)	.36 <sup>b</sup> (72)	.58 <sup>c</sup> (74)	.63 <sup>c</sup> (79)	.65 <sup>c</sup> (78)	.77 <sup>c</sup> (79)	.59 <sup>c</sup> (72)	.74 <sup>c</sup> (60)	

a = .05    b = .01    c = .001

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Examining the top right side of Table 32, the girls' PRT scores correlated with second grade Stanford Reading scores .41 ( $p = .001$ ), and with CAT English in 11th grade .43. The boys' correlations are similar through grade 10. When the same test battery is considered using the CAT, correlations from 5th through 11th grades increase to the .70 to .80 levels. All of this suggests a very high degree of stability of performance from grade to grade, especially between adjacent grades in later years.

As further check upon the issue of consistency in academic performance through the years, analyses were completed on teacher report card English marks. Table 33 displays the correlations of report card achievement marks (A,B,C,D,E) given by teachers at each grade level, 1 through 10. It is clear that in general the relationships decline as the interval of time increases. For example, English marks for girls in grade 1 correlate highly with second grade marks .69 ( $p = .001$ ), but with 9th grade only .20 ( $p = .01$ ). This trend is the same for boys. Also, from one adjacent grade to the next the correlations are somewhat greater than over 2 or more years.

The fact that insignificant correlations only emerged in relationships with 10th grade data suggests that the decrease in sample size in this grade was not random. Lost cases were probably marked underachievers (and thus drop-outs). This loss of cases decreases the range of scores and thus chances for significant findings.

In general, these results for teacher marks support the generalization that achievement behaviors correlate over broad spans of time, suggesting that for many children the pattern of achievement may be set quite early, especially as such achievement is measured by standardized tests.

Table 33  
Correlations Among Teachers Report Card Marks in English  
Grades 1 Through 10  
Grade Levels (Females)

	1	2	3	4	5	6	7	8	9	10
1		.69 <sup>c</sup> (213)	.49 <sup>c</sup> (171)	.33 <sup>c</sup> (199)	.27 <sup>c</sup> (159)	.27 <sup>c</sup> (143) c	.32 <sup>c</sup> (200) c	.27 <sup>c</sup> (199) c	.20 <sup>b</sup> (190) b	.10 (117) N.S.
2	.72 <sup>c</sup> (147)		.29 <sup>c</sup> (158)	.40 <sup>c</sup> (175)	.17 <sup>a</sup> (145)	.35 <sup>c</sup> (129)	.30 <sup>c</sup> (177)	.24 <sup>b</sup> (178)	.25 <sup>c</sup> (169)	.17 (106) N.S.
3	.62 <sup>c</sup> (147)	.65 <sup>c</sup> (143)		.31 <sup>c</sup> (147)	.35 <sup>c</sup> (125)	.27 <sup>b</sup> (111)	.25 <sup>b</sup> (142)	.23 <sup>b</sup> (144)	.19 <sup>a</sup> (136)	.20 (88) N.S.
4	.39 <sup>c</sup> (179)	.46 <sup>c</sup> (156)	.47 <sup>c</sup> (141)		.34 <sup>c</sup> (175)	.21 <sup>b</sup> (154)	.33 <sup>c</sup> (195)	.25 <sup>c</sup> (196)	.33 <sup>c</sup> (186)	.20 <sup>a</sup> (117)
5	.27 <sup>c</sup> (141)	.26 <sup>b</sup> (121)	.30 <sup>b</sup> (110)	.52 <sup>c</sup> (167)		.49 <sup>c</sup> (150)	.36 <sup>c</sup> (155)	.32 <sup>c</sup> (155)	.27 <sup>c</sup> (150)	.35 <sup>c</sup> (94)
6	.32 <sup>c</sup> (138)	.32 <sup>c</sup> (114)	.41 <sup>c</sup> (108)	.44 <sup>c</sup> (156)	.55 <sup>c</sup> (151)		.36 <sup>c</sup> (146)	.34 <sup>c</sup> (149)	.45 <sup>c</sup> (132)	.32 <sup>b</sup> (81)
7	.28 <sup>c</sup> (182)	.32 (153)	.22 <sup>b</sup> (134)	.37 <sup>c</sup> (191)	.33 <sup>c</sup> (159)	.44 <sup>c</sup> (150)		.55 <sup>c</sup> (211)	.40 <sup>c</sup> (184)	.28 <sup>b</sup> (109)
8	.33 <sup>c</sup> (185)	.26 <sup>c</sup> (159)	.26 <sup>b</sup> (141)	.36 <sup>c</sup> (193)	.41 <sup>c</sup> (158)	.33 <sup>c</sup> (152)	.46 <sup>c</sup> (205)		.44 <sup>c</sup> (190)	.22 <sup>a</sup> (110)
9	.27 <sup>c</sup> (160)	.32 <sup>c</sup> (133)	.35 <sup>c</sup> (117)	.26 <sup>c</sup> (167)	.30 <sup>c</sup> (135)	.27 <sup>b</sup> (131)	.39 <sup>c</sup> (170)	.39 <sup>c</sup> (180)		.34 <sup>c</sup> (124)
10	.07 (92) N.S.	.04 (85) N.S.	.08 (72) N.S.	.10 (95) N.S.	.26 <sup>a</sup> (74)	.30 <sup>b</sup> (75)	.20 (92) N.S.	.15 (95) N.S.	.21 <sup>a</sup> (100)	

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Grade Levels  
(Males)

a = p < .05  
b = p < .01  
c = p < .001  
N.S. - Non Significant

SPECIAL CLASS PLACEMENT AND RETENTION IN GRADE

During the period of the present study, 23 boys and 10 girls were placed in special classes, due to severe learning difficulty. Fourteen of the boys and all of the girls were placed in the 3rd or 4th grades. Of the remaining boys, 4 were placed in grade 2, 1 in each of grades 5 through 7, and 2 in grade 8. While such placement was rare, and the basis for decision very likely a complicated one, the data suggest that such a decision was usually made after 2 years of exposure to a regular school environment.

At almost every grade level, 1 through 10, one or more children repeated the grade level just completed (Tables 34 & 35). Over the 10 grades, 97 boys repeated at least one grade and of these 16 repeated the same grade twice and one three times. Fifty-four girls repeated at least once and of these 6 repeated twice. One predominant early grade in which repeating occurred was the 3rd, wherein 8 girls repeated once and 4 of them did so a second time. Nine of the 26 boys who repeated 3rd grade also did so a second time. These data, coupled with that describing the extent of special class placement, reveal that the 3rd grade was an early point in the educational process when children were most apt to be identified as having severe learning difficulties. The difficulties apparently reached the level where school authorities took action to re-program for the youngsters by removing them from the regular school progress track.

Table 34  
Grades Repeated - Frequencies & Percents  
Males

	<u># of Times Repeated</u>			
	0	1	2	3
1	272 (97)	7 (3)	0 (0)	0 (0)
2	267 (96)	9 (3)	3 (1)	0 (0)
3	226 (90)	17 (7)	9 (4)	0 (0)
4	247 (98)	5 (2)	0 (0)	0 (0)
5	239 (97)	7 (3)	0 (0)	0 (0)
<u>Grades Repeated</u> 6	248 (100)	0 (0)	0 (0)	0 (0)
7	237 (96)	8 (3)	2 (1)	0 (0)
8	223 (96)	9 (4)	1 (0)	0 (0)
9	167 (90)	17 (9)	1 (1)	1 (1)
10	154 (99)	1 (1)	0 (0)	0 (0)
Totals		80	16	1

Grades Repeated - Frequencies & Percents  
 (Females)

	<u># of Times Repeated</u>			
	0	1	2	3
1	272 (99)	2 (1)	0 (0)	0 (0)
2	271 (99)	4 (1)	0 (0)	0 (0)
3	243 (97)	4 (2)	4 (2)	0 (0)
4	253 (99)	2 (1)	0 (0)	0 (0)
5	258 (100)	1 (0)	0 (0)	0 (0)
<u>Grades Repeated</u> 6	256 (98)	3 (1)	1 (0)	0 (0)
7	255 (98)	5 (2)	0 (0)	0 (0)
8	235 (97)	7 (3)	0 (0)	0 (0)
9	179 (90)	20 (10)	1 (1)	0 (0)
10	192 (100)	0 (0)	0 (0)	0 (0)
Totals		48	6	0

Another time in the youngsters' school lives when repeating a grade occurred frequently was the 9th grade level. This is usually the last year of junior high school. Approximately 10 percent of both boys and girls (19 boys, 9 percent; 21 girls, 10 percent) were considered unprepared to enter high school.

Self-Reported Drug Use

Percent of youth using each drug the year prior to interview  
(Age 17-18):

Table 36 provides a picture of how many youngsters used each drug the year prior to the interview, and supplies equivalent data for comparison from annual prevalence of use among seniors in 1980 as reported in the NIDA nationwide report on Student Drug Use in America: 1975-1980.

In contrast to findings regarding official police contact and self reported crime, data on drug use reveals no sex differences. In the current sample, 62% used alcohol, 55% marijuana, 13% cocaine, 9% amphetamines, and 5% used hallucinogens, barbituates, and quaaludes. One percent used heroine. Two findings differentiate the current sample from nationwide data. Markedly fewer reported using alcohol, and fewer reported using amphetamines. In general, however, the data approximate that in the nationwide sample, and suggest that youngsters in the study were honestly reporting their activities.

Table 37 reports on the frequency of use of each drug for each sex separately. It is difficult to attempt a summary of such a table since frequency obviously varies as a function of the drug used. Also, it is somewhat arbitrary to indicate any particular frequency of use as marking a borderline between "safe" or "moderate" use, and the zone of dangerous or excessive

Table 36

Self-reported use of drugs during one year, and equivalent nationwide prevalence rates among 1980 high school seniors

Drug	Males		Females		Total		NIDA	
	N	(%)	N	(%)	N	(%)	Males (%)	Females (%)
Alcohol	133	(68)	131	(58)	264	(62)	(90)	(86)
Marijuana	105	(53)	126	(56)	131	(55)	(53)	(44)
Hallucinogens	11	( 6)	9	( 4)	20	( 5)	(12)	( 6)
Amphetamines	20	(10)	18	( 8)	38	( 9)	(20)	(22)
Barbituates	11	( 6)	11	( 5)	22	( 5)	( 7)	( 6)
Heroin	3	( 2)	2	( 1)	5	( 1)	(0.6)	(0.4)
Cocaine	29	(15)	28	(12)	55	(13)	(15)	(10)
Quaaludes	14	( 7)	8	( 4)	22	( 5)	( 9)	( 5)
Others	4	( 2)	6	( 3)	10	( 2)	-	-



use. Some might judge that any use of most would be "excessive".

It is clear that alcohol and marijuana use is greatest: 6% of males use alcohol at least once a week, as do 11% of females; 28% of males reported using marijuana at least once a week, as did 23% of females. Use of other drugs was not reported as frequent. If once a month or more is taken as the point of departure, among males 7% reportedly used amphetamines, 4% barbituates, and 4% quaaludes. Females reported lower use. Considering the small sample, the percent use of heroin cannot be assessed, although it is small in absolute terms. The findings regarding cocaine among males (8% used cocaine at least once a month) appears of sufficient proportions to take notice, although the findings in the prior table would suggest this sample does not differ significantly from national norms regarding cocaine use.

Rate of Multiple use of drugs:

Table 38 indicates rate of multiple use of drugs, excluding alcohol. Again there are no marked sex differences. However, the table indicates that 19% of the total sample used more than one type of drug other than alcohol during the year, 9% using 3 or more. While these data ignore the issue of frequency of use, they do suggest at least an active exploration among or experimentation with drugs among between one and two out of every ten youngsters.

Relationships between use of different substances:

Further analyses were performed to assess the relationship between use of alcohol, marijuana, and other drugs in both sexes. Table 39 provides evidence of concurrent use of alcohol and marijuana. In both sexes there is a significant finding that users of one tend to use the other.

Table 38

Multiple use of drugs, excluding alcohol, for each sex separately and combined

<u>No. used</u>	Males (N=197)		Females (N=227)		Total (N=424)	
	<u>N</u>	<u>(%)</u>	<u>N</u>	<u>(%)</u>	<u>N</u>	<u>(%)</u>
0	89	(45)	98	(43)	187	(44)
1	66	(34)	87	(38)	153	(36)
2	23	(12)	21	(9)	44	(10)
3	5	(3)	13	(6)	18	(4)
4	5	(3)	5	(2)	10	(2)
5	5	(3)	0	(0)	5	(1)
6	3	(2)	3	(1)	6	(1)
7	1	(1)			1	(1)

Table 39

Relationship between alcohol and marijuana use in males and females

	<u>Males<sup>a</sup></u>				<u>Females<sup>b</sup></u>			
	<u>Marijuana</u>		<u>Marijuana</u>		<u>Marijuana</u>		<u>Marijuana</u>	
	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>
Alcohol	<u>Yes</u>	84	49	Alcohol	<u>Yes</u>	89	42	
	<u>No</u>	21	43		<u>No</u>	37	59	

a  $\chi^2 = 14.7$ ; df 1; p = .001

b  $\chi^2 = 18.2$ ; df 1; p = .001

Table 40 provides evidence of concurrent use of alcohol and drugs other than marijuana. In neither sex is there evidence that use of alcohol is accompanied by use of drugs other than marijuana.

Table 41 provides evidence of concurrent use of marijuana and other drugs (excluding alcohol). The results are quite striking, indicating a significant relationship between use of marijuana and use of other drugs other than alcohol. Close examination of the table indicates that it is indeed rare to find a non-user of marijuana who is taking another drug. Conversely, a user of other drugs is almost invariably also using marijuana, (i.e. 33 out of 35 youngsters!).

These findings would suggest that while relationships obtain between use of one substance and another, it would not be safe to create a single measure of substance abuse to reflect a youngster's drug habits. While the relationship between use of alcohol and marijuana is statistically significant, still 91 or 34% of the youngsters who reported using alcohol reported no use of marijuana. Further, use of alcohol and use of other drugs is unrelated. Finally, while use of other (non-alcoholic) drugs is almost invariably accompanied by use of marijuana, the large majority of marijuana users (86%) did not report the use of any other drug. These findings suggest the use of separate measures of alcohol, marijuana, and other drug use in the present study.

Table 40  
Relationship between alcohol and drug use other than marijuana in males and females

		<u>Males</u> <sup>a</sup>		<u>Females</u> <sup>b</sup>	
		<u>Drugs</u>		<u>Drugs</u>	
		<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>
<u>Alcohol</u>	<u>Yes</u>	17	116	11	120
	<u>No</u>	4	60	3	93

a  $\chi^2 = 1.3$ ; df 1; NS

b  $\chi^2 = 1.8$ ; df 1; NS

Table 41

Relationship between Marijuana use and use of other non-alcoholic drugs in males and females

		<u>Males</u> <sup>a</sup>		<u>Females</u> <sup>b</sup>	
		<u>Drugs</u>		<u>Drugs</u>	
		<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>
<u>Marijuana</u>	<u>Yes</u>	19	86	14	112
	<u>No</u>	2	90	0	101

a  $\chi^2 = 11.4$ ; df;  $p = .001$

b  $\chi^2 = 10.1$ ; df;  $p = .001$

RESULTS: FACTOR ANALYSES OF CRITERION VARIABLES

Since the purpose of the present study was to address how early capacity to cope may discriminate among children who later may manifest delinquent behavior and misconduct both in school and community, an initial question was how criteria of such subsequent problems are organized and/or relate to criteria of other problems addressed in the larger parent study, (e.g. emotional status, academic success, drug use, etc.). Intimately related to such questions is the question of the meaning of delinquent behavior as might be revealed in exploring the relationship of delinquent behaviors to other criterion behaviors. Exploration of these questions was done through factor analyses.

Male Factors

A varimax factor analysis was conducted which revealed four factors for males that were readily interpretable. Table 42 presents each factor and its loadings on each of the criterion variables of the parent study. As indicated, most criterion scores were obtained when Ss were 15 or 16 years of age, with the exception of number of police contacts which totaled each youngster's life history.

The first factor has its highest loadings on self-reported use of alcohol, marijuana, and more serious drugs during the previous year, self-reported history of theft and hitting (or threatening to beat) others, and current (age 18) feelings of anger. One striking common element in this factor is its basis only in self-report data, "official" police and school delinquency data loading very low or not at all. A second feature is the very high loading on current feelings of anger and reported poor anger control. Together,

Table 42

Factor analysis of criterion variables in males

CRITERION VARIABLES	Factors			
	1	2	3	4
Number of Police Contacts	.21	.40*	-.08	-.03
School Delinquency (Pink Slips)	-.02	.39*	.07	-.24
Community MH Center Contact	.15	.26	.17	-.19
TRAS Conduct Disturbance Ratings	.17	.52**	.10	-.15
TRAS Neurotic Withdrawal	-.14	.28	.00	.01
Department Grade	-.16	-.46*	.24	-.07
School Non-Attendance	.05	.49*	.05	-.20
Counselor Contact	.05	.47*	.32*	.02
Classroom Positive Behavior	-.06	-.63**	.12	.01
English Marks	-.11	-.68**	.29	-.17
CAT Scores	.17	-.43*	.37*	.04
Alcohol Use	.59**	.15	-.12	.09
Marijuana Use	.62**	.25	-.23	.10
Serious Drug Use	.50**	.06	.00	.03
Parent-Family Valued	-.04	-.02	.09	.63**
School Values	-.04	-.04	.35*	.38*
College Aspirations	.01	-.14	.37*	.07
Attitude towards Deviance (Pos.)	-.42*	-.04	.30*	.64**
Parent-Family Identification	-.14	-.08	-.62**	-.10
School Identification	.08	-.11	-.62**	-.16
Commitment to Lawful Conduct	.03	.03	-.32*	-.02
Police Respect	-.25	-.13	.08	.33*
Theft Self-Report	.56**	.02	-.29	-.24
Personal Crime Self-Report	.53*	.02	.11	-.17
Assault Threat Self-Report	.37*	.14	.14	-.39*
Anger Self-Report	.56**	-.04	.05	-.14
Anxiety Self-Report	.35*	-.26	.08	-.05
Depression Self-Report	.18	-.20	-.08	-.07
Hope Self-Report	.09	.02	.25	.40*

\*\* loadings .50 and higher

\* loadings .30 - .49

these elements suggest that the underlying parameter is a subjective tone of negation, escape into drugs, and rule-breaking that is a manifestation or consequence of both. The element of escape is supported by the loading of self-reported anxiety, and rule-breaking by the loading of deviance acceptance.

In contrast to the subjective tone of the first factor, the second factor is defined by elements all of which indicate societally labeled failure and/or inability to do the things that will obtain social rewards, and rule-breaking behaviors which arouse societal retaliation. Failure is evidenced in high loading on poor teacher marks in English, inability to manifest active and positive classroom behaviors, low CAT scores, excessive absenteeism and school dropout. Rule breaking behavior loading elements include number of police contacts, total pink slip offense score at school, poor classroom conduct and unmanageable behavior, and being referred to the counselor. The subjective tone of anger in the first factor is not present. This factor encompasses the official delinquency and school failure elements most often referred to in the literature.

The third factor is defined most by the "normlessness" attitude items, college aspiration, and identification with school values. The suggested underlying parameter, phrased positively, taps a sense of identification with and commitment to parents (vs peers), teachers and school work, and the law. It suggests the presence of inner values and specifically academic commitment and aspiration.

The fourth factor has highest loadings on identification with parent/family values, sense of "right and wrong", and lesser

loading on self reported hopefulness, rare (if ever) reporting of strongarming others, respect for the police, and identification with school values. The underlying parameter seems to be a positive connection to and respect for parents and authority, with consequent optimism, respect for others, and desire to conform.

A striking feature of these findings is the lack of relationship revealed between official police contact and school delinquency (in factor 2), and the belief and attitudinal factors (3 and 4) comprised of elements often proposed as mediating delinquent behaviors. The separate factor loadings are further corroborated by absence of significant correlation between number of police contacts and all attitudinal measures of normlessness, and identification with and aspiration regarding academic life (factor 3), and identification with parent/family values and attitude toward deviance (factor 4). A second striking feature is the distinction noted between factors 1 and 2: between the subjective negative tone/self-reported delinquency and drug use in factor 1, and the objectively defined delinquency and school failure in factor 2. The emergence of factor 2, separate from factors 3 and 4 suggest that, among such a group of high risk urban youngsters, presence of inner values and academic aspiration in adolescence bears no direct relationship to a life history of official police delinquency and other objective signs of adjustive failure. Nor do beliefs indicating connection with and respect for parents and authority, as well as hope for the future. Such attitudinal features may help to distinguish some delinquents from others and thus have some prognostic value, but do not help explain the societally defined failure and rule-breaking quality of which official delinquency and school failure are

a part.

The second feature - the emergence of separate factors 1 and 2 - suggests the need to distinguish between delinquency when self reported and that recorded in official police files, school records, or other forms observable by adults. There is a correlation between officially recorded number of police contacts, and self reported police contact and self-reported serious (face-to-face) delinquent behavior (though not with less serious theft or aggressiveness). However, the suggestion is that self reported minor crime and use of alcohol and drugs is linked by a common negative angry/escapist underpinning, whereas an officially recorded history of delinquency is associated with a range of other "failure" behaviors obvious to others and part of a youngster's official school and community records.

#### Female Factors

For the sake of comparability, the factor analysis of female data rotated to extract the best four-factor solution. The data are presented in Table 43.

While similar in some respects to factor 1 among males, the first female factor does have a different emphasis. Highest loadings suggest a low sense of emotional well-being, manifest especially in high levels of self-reported depressive affect and anxious feelings. Also significant for this factor are self-reported minor delinquencies, low level of sense of obligation and commitment to parents/family, and self-reported involvement with serious drugs, school delinquency and excessive school absenteeism. Together, these elements suggest that the main underlying parameter is a feeling of inner emotional turmoil, estrangement from family

Factor analysis of criterion variables in females  
Factors

CRITERIAN VARIABLES	1	2	3	4
Number of Police Contacts	.19	.42*	.10	-.12
School Delinquency (Pink Slip)	.37*	.39*	-.01	.12
Community MH Center Contact	.14	.19	.00	.37*
TRAS Conduct Disturbances Rating	-.06	.49*	-.06	.07
TRAS Neurotic Withdrawal	.15	-.07	.01	.56**
Department Grade	-.05	-.63**	.16	-.11
School Non-Attendance	.30	.33*	.00	.18
Counselor Contact	.25	.28	.07	.10
Classroom Positive Behavior	-.05	-.27	.04	-.65**
English Marks	-.08	-.46*	.08	-.43*
CAT Scores	-.02	-.36*	.15	-.30
Alcohol Use	.26	.07	-.05	.08
Marijuana Use	.11	-.03	.03	.02
Serious Drug Use	.35*	.10	.06	.00
Parent-family Valued	.11	.06	.37*	-.20
School Values	.11	.02	.36*	-.12
College Aspirations	-.04	-.25	.19	-.15
Attitude Towards Deviance (Pos.)	-.25	.09	.49*	.01
Parent-family Identification	.44*	.11	-.50**	.08
School Identification	.07	.14	-.70**	.01
Commitment To Lawful Conduct	.14	.43*	-.40*	-.17
Police Respect	-.14	.30	.24	.18
Theft Self-Report	.55**	.08	-.08	.17
Personal Crime Self-Report	.41*	.21	-.11	.18
Assault Threat Self-Report	.24	-.03	-.09	.45*
Anger Self-Report	.34*	.24	-.20	.04
Anxiety Self-Report	.57**	.00	-.12	-.01
Depression Self-Report	.68**	.08	-.26	.05
Hope Self-Report	-.12	-.11	.37*	.08

\*\* loadings .50 and higher

\* loadings .30 - .49

values, with escape into serious drugs, minor delinquency, and school behavioral problems.

The second factor closely approximates factor 2 in the males, defined by official police contact, school delinquency and misconduct, and academic failure. As with males, the common element is societally labeled failure and rule-breaking. In contrast to the male group, this element also includes among females a low expressed respect for the police.

Factor 3 is similar to factor 3 among males. Its highest loading elements suggest high levels of obligation and commitment to parents (vs peers), to teachers and schoolwork, and to lawful conduct, and identification with the values of parents and family life, as well as school. Associated with these is a feeling of hope about the future. The underlying element would seem to be a commitment to a belief in conformity with established cultural values of the larger society.

Factor 4 finds no parallel in males. It loads highest in absence of positive, active classroom behavior, classroom behaviors indicating social withdrawal and timidity, low academic achievement, self-reported aggressive behaviors, and CMH contact. The underlying feature suggested is that of neuroticism, manifest in interpersonal problems, classroom achievement difficulty, and referral for psychiatric help.

In a fashion similar to that among males, manifest delinquency in community and school among females combine with academic failure (factor 2), defining a dimension of societally labeled problems

which is distinguishable from a variety of self reported behavioral problems and drug use which may reflect inner emotional turmoil and feeling of estrangement from parental values (factor 1). The sex differences are also of interest in that while factor 1 in males seemed dominated by angry feelings, factor 1 in females was dominated by anxious and depressed feelings.

A second sex difference is the emergence of a neuroticism factor among females that did not emerge among males, a factor characterized by absence of active, positive classroom behaviors, presence of use of aggressive behavior with others, school failure, and CMH contact. The underlying parameter appears to reflect marked absence of behavior required of school success, combined with interpersonally maladaptive behavior, resulting in CMH referral.

RESULTS: EARLY BEHAVIOR AND LATER DELINQUENCY AND MISCONDUCT  
(REGRESSION ANALYSES)

In order to examine possible relationships between early behavioral signs of problems with coping, and later indices of delinquency and misconduct, a series of regression analyses were conducted relating specific behavioral factors from the Devereux Elementary School Behavior (DESB) Rating Scale and criteria of delinquency. The latter criteria included total number of official police contacts in the life history, the sum of the police contact seriousness scores representing each official police contact offense in the life history, the total offense scores over a three year period of adolescence derived from "pink slips" school offense reports, and the conduct disturbance score derived from teacher ratings of classroom behavior over a two year period of adolescence. These criterion measures were selected as most directly reflecting delinquent misconduct in the community and in the school. All loaded on the same factor for males and females, indicating societal (rather than subjective, self-report) labeling of delinquency.

Early Behavior and Life History of Police Contacts

Tables 44 and 45 present correlational and regression findings for both sexes, for each DESB factor in kindergarten, first grade, second grade and third grade, in relationship to total number of police contacts and total seriousness scores (of police contacts) for these offenses. Table entries include first order correlations, R values, and significant beta values when R values are significant. Interpretation of these (and subsequent) tables derives from exploration of

Table 44

Multiple regression analyses describing the relationships between K-3 classroom behavior and total number of police contacts, for both sexes

DESB Factors	Males				Females			
	Kgtn (N=270)	gr. 1 (N=212)	gr. 2 (N=237)	gr. 3 (N=247)	Kgtn (N=278)	gr. 1 (N=215)	gr. 2 (N=234)	gr. 3 (N=259)
1. Classroom Disturbance	.19 <sup>c</sup>	.17 <sup>b</sup>	.27 <sup>cd</sup>	.22 <sup>c</sup>	.16 <sup>b</sup>	.14 <sup>a</sup>	.09	.06
2. Impatience	.20 <sup>cd</sup>	.16 <sup>a</sup>	.18 <sup>b</sup>	.00	.09	.10	.10	.10
3. Disrespect Defiance	.20 <sup>cd</sup>	.17 <sup>b</sup>	.25 <sup>c</sup>	.25 <sup>cd</sup>	.10	.07	.04	.08
4. External Blame	.05	.00	.21 <sup>c</sup>	.15 <sup>a</sup>	.09	.09	.03	-.03
5. Achievement Anxiety	.03	-.02	.00	-.06	.11 <sup>a</sup>	-.01	.04	-.03
6. External Reliance	.00	.09	.16 <sup>b</sup>	.09	.04	.13 <sup>a</sup>	-.02	.02
7. Comprehension	-.10	-.13 <sup>a</sup>	-.17 <sup>bd</sup>	-.11	.00	-.10	-.07	-.08
8. Inattentive Withdrawn	.10	.09	.19 <sup>b</sup>	.07	.04	.07	.00	.03
9. Irrelevant Responsiveness	.13 <sup>a</sup>	.12	.21 <sup>c</sup>	.11	.14 <sup>a</sup>	-.04	.12 <sup>a</sup>	.11
10. Creative Initiative	-.01	-.14 <sup>a</sup>	-.05	-.05	-.01	-.09	.05	-.05
11. Needs Closeness	.00	-.13 <sup>a</sup>	.00	-.08	.01	-.06	.05	.00
Multiple R	.27 <sup>a</sup>	.30	.31 <sup>b</sup>	.33 <sup>b</sup>	.21	.29	.23	.20

a = p < .05  
b = p < .01

c = P < .001  
d = significant beta < .05  
D = beta .05-.10

Table 45

Multiple regression analyses describing the relationships between K-3 classroom behavior and total seriousness of police contact crimes, for both sexes

DESB Factors	Kgtn. (N=270)	Males			Females			
		gr. 1 (N=212)	gr. 2 (N=237)	gr. 3 (N=247)	Kgtn. (N=275)	gr. 1 (N=212)	gr. 2 (N=231)	gr. 3 (N=256)
1. Classroom Disturbance	.13 <sup>a</sup>	.16 <sup>a</sup>	.24 <sup>c</sup>	.00	.15 <sup>a</sup>	.23 <sup>c</sup>	.13 <sup>a</sup>	.21 <sup>c</sup>
2. Impatience	.10	.14 <sup>a</sup>	.17 <sup>b</sup>	.13 <sup>a</sup>	.16 <sup>b</sup>	.15 <sup>a</sup>	.23 <sup>c</sup>	.19 <sup>b</sup>
3. Disrespect Defiance	.18 <sup>b</sup>	.15 <sup>a</sup>	.20 <sup>b</sup>	.26 <sup>c</sup>	.13 <sup>a</sup>	.17 <sup>a</sup>	.11	.17 <sup>b</sup>
4. External Blame	.05	-.02	.00	.17 <sup>b</sup>	.10	.18 <sup>b</sup>	.09	.06
5. Achievement Anxiety	.03	.00	.03	-.04	.14 <sup>a</sup>	.03	.06	.07
6. External Reliance	.04	.09	.15 <sup>a</sup>	.08	.10	.16 <sup>a</sup>	.08	.16 <sup>b</sup>
7. Comprehension	-.10	-.11	-.19 <sup>b</sup>	-.13 <sup>a</sup>	-.03	-.12	-.17 <sup>b</sup>	-.14 <sup>a</sup>
8. Inattentive Withdrawn	.06	.09	.22 <sup>c</sup>	.07	.00	.11	.11	.15 <sup>a</sup>
9. Irrelevant Responsiveness	.06	.11	.16 <sup>a</sup>	.16 <sup>a</sup>	.13 <sup>a</sup>	.07	.22 <sup>c</sup>	.17 <sup>b</sup>
10. Creative Initiative	.00	-.14 <sup>a</sup>	-.05	-.01	-.01	-.11	.03	-.03
11. Needs Closeness	-.03	-.11	.00	-.05	.03	.02	.03	.03
Multiple R	.26	.27	.31 <sup>b</sup>	.32 <sup>b</sup>	.21	.32 <sup>a</sup>	.32 <sup>b</sup>	.28 <sup>a</sup>

a = p < .05  
b = p < .01

c = P < .001  
d = significant beta < .05  
D = beta .05 - .10

the significant  $R$  values, examining which individual factors have significant correlations when the  $R$  value is significant, and finally which significant  $r$  value also has a significant beta. A significant beta suggests which behaviors not only contribute to a significant  $R$  value but add to the  $R$  value above and beyond the contribution it makes to the shared common source of significance.

Considering the findings for males first, Table 44 indicates that, as early as kindergarten, a grouping of DESB factors (1, 2, 3, and 9) significantly define a high risk behavior grouping for subsequent number of official police contacts. A similar pattern emerges in grades 2 and 3. The relevance of these factors is confirmed by Table 45 findings relating these factors to total seriousness of police recorded offense scores. In some instances factors 4 and 7 also enter the picture. In the main, the grouping of significant factors suggest a young child who exhibits a variety of cognitive and behavioral signs of poor self control, impatience, and lack of social criticality that produce social problems for the child and possible academic problems.

These findings do not emerge among females when the criterion of number of police contacts is employed (See Table 44). This was to be expected, since the number of police contacts in the female cohort was generally low and thus the distribution of dependent variable scores quite restricted. In contrast, when total seriousness of police contacts was considered (Table 45), a similar combination of factors emerge as defining high risk (1, 2, 6 and 9), at times accompanied by factors 3 and 7. At least, at this point in the analyses, the major sex difference is in the consistent

involvement of factor 6 in females, though only once (See Table 45) with males. This factor measures dependency upon externals (e.g. the teacher) in decision-making, and may be interpreted as indicating a lack of self-directed functioning early in life.

The behavior factors common to both sexes, and which consistently are significant are 1, 2 and 9. At this stage of data analysis, it would appear that official delinquency in the community relates to early classroom behavior patterns characterized at ages 6-8 by impatience or inability to wait, a disturbing and socially annoying social pattern, and cognitive responsiveness typified by lack of reflectiveness and social relevance. It is also of interest to note behaviors not of significance, or so rarely as to suggest at best a very weak relationship to subsequent delinquent behavior in the community. Early behaviors indicating scholastic comprehension (factor 7), attentiveness (factor 8), creative involvement in school work (factor 10), and quality of relationship to the teacher (factor 11) do not help define high risk, even though they bear directly upon the quality of purely academic performance in school at the time.

#### Early Behavior and School Delinquency

Tables 46-49 present findings for males, relating DESB factor scores to total offense scores based upon pink slip reports in school from separate years 1976-78 (grades 8-10), and for totals of adjacent years. The latter combined years measure was included as likely representing more reliable scores since they covered behavioral reports over 2-year periods. The decreased  $N$ s however also decreased chances for statistical significance.

Table 46

Multiple regression analyses describing the relationship between behaviors in kindergarten and total delinquency offense scores in school between the ages of 13 and 15, in males

DESB Factors	Age							
	13 (N=167)	14 (N=193)	15 (N=172)	13-14 (N=151)	14-15 (N=156)			
1. Classroom Disturbance	.06	.21 <sup>b</sup>	.17 <sup>a</sup>	.19 <sup>a</sup>	.26 <sup>CD</sup>			
2. Impatience	.08	.27 <sup>cd</sup>	.05	.21 <sup>b</sup>	.18 <sup>a</sup>			
3. Disrespect Defiance	.01	.23 <sup>c</sup>	.10	.16 <sup>a</sup>	.26 <sup>c</sup>			
4. External Blame	.06	.00	.03	.15 <sup>a</sup>	.14			
5. Achievement Anxiety	.10	.09	.11	.14	.15 <sup>a</sup>			
6. External Reliance	-.03	.10	.10	.07	.14			
7. Comprehension	.00	.00	-.07	-.06	-.06			
8. Inattentive Withdrawn	-.04	.24 <sup>cd</sup>	.13	.14	.26 <sup>cd</sup>			
9. Irrelevant Responsiveness	.00	.11	.04	.11	.11			
10. Creative Initiative	.04	-.03	.01	.03	.00			
11. Needs Closeness	.05	.01	.02	.06	.04			
Multiple R	.22	.37 <sup>c</sup>	.26	.31	.39 <sup>b</sup>			

a = p < .05  
b = p < .01

c = p < .001  
d = significant beta < .05  
D = beta .05-.10

Table 47

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Multiple regression analyses describing the relationship between behaviors in grade 1 and total delinquency offense scores in school between the ages of 13 and 15, in males

DESB Factors	13 (N=131)	14 (N=156)	15 (N=140)	13-14 (N=118)	14-15 (N=129)			
1. Classroom Disturbance	.17 <sup>a</sup>	.30 <sup>cd</sup>	.26 <sup>b</sup>	.23 <sup>b</sup>	.36 <sup>cd</sup>			
2. Impatience	.11	.18 <sup>ad</sup>	.25 <sup>b</sup>	.18 <sup>a</sup>	.26 <sup>b</sup>			
3. Disrespect Defiance	.00	.19 <sup>a</sup>	.14	.25 <sup>b</sup>	.22 <sup>b</sup>			
4. External Blame	.21 <sup>a</sup>	.13	-.02	.24 <sup>b</sup>	.06			
5. Achievement Anxiety	.20 <sup>a</sup>	.02	.19 <sup>ad</sup>	.14	.13			
6. External Reliance	.05	.15 <sup>a</sup>	.25 <sup>b</sup>	.11	.25 <sup>b</sup>			
7. Comprehension	.00	-.15 <sup>a</sup>	-.23 <sup>b</sup>	-.09	-.25 <sup>b</sup>			
8. Inattentive Withdrawn	.11	.26 <sup>cd</sup>	.30 <sup>c</sup>	.22 <sup>a</sup>	.37 <sup>cd</sup>			
9. Irrelevant Responsiveness	.11	.27 <sup>c</sup>	.00	.20 <sup>a</sup>	.32 <sup>c</sup>			
10. Creative Initiative	-.02	-.12	-.02	-.07	-.11			
11. Needs Closeness	-.02	-.02	-.04	-.03	-.06			
Multiple R	.31	.38 <sup>a</sup>	.45 <sup>c</sup>	.37	.45 <sup>b</sup>			

a = p < .05  
b = p < .01

c = P < .001  
d = significant beta < .05  
D = beta .05 - .10

Table 48

Multiple regression analyses describing the relationship between behaviors in grade 2 and total delinquency offense scores in school between the ages of 13 and 15, in males

DESB Factors	Age				
	13 (N=158)	14 (N=183)	15 (N=162)	13-14 (N=143)	14-15 (N=151)
1. Classroom Disturbance	.21 <sup>bd</sup>	.00	.18 <sup>a</sup>	.26 <sup>bd</sup>	.20 <sup>b</sup>
2. Impatience	.21 <sup>bd</sup>	.20 <sup>b</sup>	.18 <sup>a</sup>	.24 <sup>b</sup>	.20 <sup>b</sup>
3. Disrespect Defiance	.11	.20 <sup>b</sup>	.11	.20 <sup>a</sup>	.16 <sup>a</sup>
4. External Blame	.17 <sup>a</sup>	.25 <sup>c</sup>	.06	.24 <sup>bd</sup>	.20 <sup>b</sup>
5. Achievement Anxiety	.10	.05	-.01	.09	.00
6. External Reliance	.07	.17 <sup>a</sup>	.16 <sup>a</sup>	.12	.17 <sup>a</sup>
7. Comprehension	-.17 <sup>ad</sup>	-.15 <sup>a</sup>	-.15 <sup>a</sup>	-.18 <sup>ad</sup>	-.17 <sup>a</sup>
8. Inattentive Withdrawn	.06	.13	.09	.12	.10
9. Irrelevant Responsiveness	.19 <sup>a</sup>	.27 <sup>c</sup>	.16 <sup>a</sup>	.25 <sup>b</sup>	.25 <sup>b</sup>
10. Creative Initiative	-.06	-.08	.00	-.07	-.06
11. Needs Closeness	-.09	.00	.00	-.09	-.01
Multiple R	.39 <sup>b</sup>	.31	.26	.38 <sup>a</sup>	.31

a = p < .05  
 b = p < .01  
 c = p < .001  
 d = significant beta < .05  
 D = beta .05 - .10

Table 49

Multiple regression analyses describing the relationship between behaviors in grade 3 and total delinquency offense scores in school between the ages of 13 and 15, in males

DESB Factors	Age				
	13 (N=163)	14 (N=198)	15 (N=170)	13-14 (N=150)	14-15 (N=159)
1. Classroom Disturbance	.12	.23 <sup>c</sup>	.24 <sup>CD</sup>	.20 <sup>b</sup>	.30 <sup>cd</sup>
2. Impatience	.11	.09	.12	.11	.13
3. Disrespect Defiance	.19 <sup>a</sup>	.24 <sup>CD</sup>	.17 <sup>a</sup>	.26 <sup>CD</sup>	.25 <sup>c</sup>
4. External Blame	.19 <sup>a</sup>	.13 <sup>a</sup>	.13	.17 <sup>a</sup>	.15 <sup>a</sup>
5. Achievement Anxiety	.11	.04	.01	.00	.02
6. External Reliance	.00	.00	.00	.00	.00
7. Comprehension	-.07	-.17 <sup>a</sup>	-.01	-.13	.00
8. Inattentive Withdrawn	.26 <sup>cd</sup>	.14 <sup>a</sup>	.13	.24 <sup>bd</sup>	.18 <sup>a</sup>
9. Irrelevant Responsiveness	.00	.21 <sup>b</sup>	.22 <sup>BD</sup>	.22 <sup>b</sup>	.28 <sup>CD</sup>
10. Creative Initiative	-.01	-.09	-.07	.00	.00
11. Needs Closeness	.00	-.03	-.14 <sup>AD</sup>	-.01	-.11
Multiple R	.31 <sup>a</sup>	.32 <sup>a</sup>	.33 <sup>a</sup>	.32 <sup>a</sup>	.38 <sup>b</sup>

a = p < .05  
b = p < .01

c = P < .001  
d = significant beta < .05  
D = beta .05 - .10

Examining the data for males, and focusing upon factors with significant correlations in years where the R is significant, (and factors wherein betas are significant), factors 1, 2, 3, 8 and 9 emerge with most frequency as contributing to a high risk pattern. This grouping appears early (in kindergarten and/or grade 1. For females (see Tables 50-53) factors 1, 2, 3, 4, 8 and 9 appear with regularity, though in general the number of significant findings in the female group is not as great as in the male group, (i.e. the relative absence of findings in grade 2 is hard to explain). This factor grouping calls forth a very similar interpretation as emerged to define high risk for delinquency in the community (i.e. official police contact) with the addition of factor 8. This factor of inattentiveness may reflect the fact that a poorly "self-regulated" child may not be attending to what is going on in the classroom because she/he generally is unreflective in cognitive/behavioral style, and thus too quick to move to action without attending, listening to others, or otherwise using intellect in a self-regulating or self-containing fashion.

Early Behavior and Classroom (TRAS) Conduct Disturbance

These analyses related early classroom behaviors to misconduct in the classroom during the adolescent years (i.e. ages 15-16). The misconduct measure includes behaviors such as quickness to anger or emotional upset, uncooperativeness and disobedience, and assaultiveness and quarrelsomeness. In contrast to the pink slip measure, which reflects a variety of behaviors which may lead to a teacher's report and referral, the conduct disturbance measure focuses specifically upon poor self-control and manifest negativeness.

Table 50

Multiple regression analyses describing the relationship between behaviors in kindergarten and total delinquency offense scores in school between the ages of 13 and 15, in females

DESB Factors	13 (N=181)	14 (N=205)	15 (N=180)	13-14 (N=170)	14-15 (N=169)			
1. Classroom Disturbance	.12	.18 <sup>b</sup>	.12	.16 <sup>a</sup>	.60			
2. Impatience	.20 <sup>bD</sup>	.32 <sup>cd</sup>	.26 <sup>cd</sup>	.30 <sup>cd</sup>	.39 <sup>cd</sup>			
3. Disrespect Defiance	.17 <sup>ad</sup>	.19 <sup>b</sup>	.11	.20 <sup>b</sup>	.20 <sup>b</sup>			
4. External Blame	.06	.28 <sup>cd</sup>	.14 <sup>a</sup>	.00	.30 <sup>cd</sup>			
5. Achievement Anxiety	-.01	.14 <sup>a</sup>	.01	.09	.13			
6. External Reliance	.14 <sup>a</sup>	.18 <sup>b</sup>	.14 <sup>a</sup>	.19 <sup>b</sup>	.24 <sup>c</sup>			
7. Comprehension	-.09	-.16 <sup>a</sup>	.00	-.16 <sup>a</sup>	-.20 <sup>b</sup>			
8. Inattentive Withdrawn	.12	.18 <sup>b</sup>	.21 <sup>bD</sup>	.16 <sup>a</sup>	.26 <sup>c</sup>			
9. Irrelevant Responsiveness	.11	.13 <sup>ad</sup>	.16 <sup>a</sup>	.13	.20 <sup>b</sup>			
10. Creative Initiative	-.18 <sup>ad</sup>	-.12	-.02	-.18 <sup>ad</sup>	-.12			
11. Needs Closeness	-.17 <sup>a</sup>	-.04	-.09	.00	-.06			
Multiple R	.32 <sup>a</sup>	.37 <sup>b</sup>	.36 <sup>b</sup>	.34 <sup>a</sup>	.42 <sup>c</sup>			

a = p < .05  
 b = p < .01  
 c = P < .001  
 d = significant beta < .05  
 D = beta .05 - .10

Table 51

Multiple regression analyses describing the relationship between behaviors in grade 1 and total delinquency offense scores in school between the ages of 13 and 15, in females

DESB Factors	Age							
	13 (N=147)	14 (N=165)	15 (N=145)	13-14 (N=135)	14-15 (N=137)			
1. Classroom Disturbance	-.01	.08	.26 <sup>cd</sup>	.02	.16 <sup>a</sup>			
2. Impatience	-.06	.04	.08	-.01	.00			
3. Disrespect Defiance	-.06	.01	.16 <sup>a</sup>	-.09	.06			
4. External Blame	-.05	.02	.22 <sup>b</sup>	-.08	.10			
5. Achievement Anxiety	-.07	.05	.12	-.04	.09			
6. External Reliance	.06	.03	.11	.03	.06			
7. Comprehension	-.14	-.03	-.08	-.08	-.04			
8. Inattentive Withdrawn	.00	.00	.07	.04	.05			
9. Irrelevant Responsiveness	-.04	.07	.12	-.01	.12			
10. Creative Initiative	-.13	.02	-.09	-.06	-.02			
11. Needs Closeness	-.08	.05	.10	.00	.08			
Multiple R	.24	.14	.37 <sup>a</sup>	.19	.22			

a = p < .05  
b = p < .01

c = P < .001  
d = significant beta < .05  
D = beta .05-.10

Table 52

Multiple regression analyses describing the relationship between behaviors in grade 2 and total delinquency offense scores in school between the ages of 13 and 15, in females

DESB Factors	Age				
	13 (N=166)	14 (N=189)	15 (N=164)	13-14 (N=156)	14-15 (N=157)
1. Classroom Disturbance	.00	.10	.13	.14	.00
2. Impatience	.13	.00	.11	.13	.13
3. Disrespect Defiance	.17 <sup>a</sup>	.07	.09	.12	.11
4. External Blame	.15 <sup>a</sup>	.02	.06	.07	.05
5. Achievement Anxiety	-.03	-.09	.01	-.11	-.06
6. External Reliance	.11	.08	-.06	.10	.06
7. Comprehension	.08	-.09	-.04	.00	-.08
8. Inattentive Withdrawn	.20 <sup>b</sup>	.14 <sup>a</sup>	-.03	.22 <sup>bd</sup>	.11
9. Irrelevant Responsiveness	.14	.10	.13	.13	.15
10. Creative Initiative	.00	.07	.09	.00	.10
11. Needs Closeness	-.05	.05	.05	-.01	.07
Multiple R	.29	.28	.27	.34 <sup>a</sup>	.29

a = p < .05  
b = p < .01

c = P < .001  
d = significant beta < .05  
D = beta .05-.10

Table 53

Multiple regression analyses describing the relationship between behaviors in grade 3 and total delinquency offense scores in school between the ages of 13 and 15, in females

DESB Factors	13 (N=186)	14 (N=215)	15 (N=188)	13-14 (N=175)	14-15 (N=178)			
1. Classroom Disturbance	.20 <sup>b</sup>	.17 <sup>b</sup>	.25 <sup>c</sup>	.22 <sup>b</sup>	.25 <sup>c</sup>			
2. Impatience	.27 <sup>cd</sup>	.25 <sup>cd</sup>	.18 <sup>b</sup>	.34 <sup>cd</sup>	.30 <sup>cd</sup>			
3. Disrespect Defiance	.22 <sup>bd</sup>	.26 <sup>cd</sup>	.20 <sup>b</sup>	.29 <sup>cd</sup>	.32 <sup>cd</sup>			
4. External Blame	.15 <sup>a</sup>	.11	.04	.15 <sup>ad</sup>	.11			
5. Achievement Anxiety	.00	.07	-.06	.11	.04			
6. External Reliance	.17 <sup>a</sup>	.09	.03	.16 <sup>a</sup>	.10			
7. Comprehension	-.09	-.07	.05	.00	-.05			
8. Inattentive Withdrawn	.10	.15 <sup>a</sup>	-.01	.17 <sup>a</sup>	.13			
9. Irrelevant Responsiveness	.18 <sup>b</sup>	.00	.24 <sup>cd</sup>	.22 <sup>b</sup>	.30 <sup>c</sup>			
10. Creative Initiative	.00	-.02	.08	.01	.01			
11. Needs Closeness	.07	.12	.11	.12	.14 <sup>ad</sup>			
Multiple R	.31 <sup>a</sup>	.38 <sup>c</sup>	.38 <sup>b</sup>	.44 <sup>c</sup>	.44 <sup>c</sup>			

a = p < .05  
b = p < .01

c = p < .001  
d = significant beta < .05  
D = beta .05-.10

Examination of Tables 54-57 for males indicates the same high risk pattern of factors 1, 2, 3, 4 and 9 as discovered for official police contact, this pattern emerging as early as in kindergarten. The absence of significance in Grade 1 remains unexplained. For females the pattern is very much that emerging for males, with the exception of absence of factor 4. It is interesting to note that for both sexes, factor 11 emerges as significant in kindergarten indicating an early relatively distant emotional relationship with the teacher among later conduct disturbed adolescents. This reappears for females in grade 3 with a significant beta.

In general these findings corroborate the pink slip findings, and support the notion that those early behaviors that define high risk for delinquency in the community also define high risk for delinquency, poor emotional control, and aggressiveness in the schoolroom during adolescence. While in a few instances the general comprehension factor emerges, in general behaviors more directly related to academic performance are not part of the early high risk picture. A tentiveness appears significant, especially when the pink slip criterion is used, but not when official police contact is the criterion.

Table 54

Multiple regression analyses describing the relationship between behaviors in kindergarten and classroom conduct disturbance between the ages of 14 and 15, in each sex.

DESB Factors	Males			Females		
	14 (N=165)	15 (N=134)	14-15 (N=105)	14 (N=178)	15 (N=126)	14-15 (N=101)
1. Classroom Disturbance	.15 <sup>a</sup>	.23 <sup>b</sup>	.31 <sup>c</sup>	.23 <sup>b</sup>	.30 <sup>c</sup>	.31 <sup>c</sup>
2. Impatience	.16 <sup>a</sup>	.18 <sup>a</sup>	.18	.23 <sup>b</sup>	.30 <sup>c</sup>	.27 <sup>b</sup>
3. Disrespect Defiance	.19 <sup>b</sup>	.23 <sup>b</sup>	.39 <sup>cd</sup>	.26 <sup>c</sup>	.00	.26 <sup>b</sup>
4. External Blame	.18 <sup>a</sup>	.09	.21 <sup>a</sup>	.20 <sup>b</sup>	.24 <sup>b</sup>	.24 <sup>a</sup>
5. Achievement Anxiety	.18 <sup>a</sup>	.04	.13	.14 <sup>a</sup>	.03	.00
6. External Reliance	.09	.18 <sup>a</sup>	.18	.09	.00	.08
7. Comprehension	-.04	.00	-.08	-.11	-.09	-.01
8. Inattentive Withdrawn	.08	.12	.13	.16 <sup>a</sup>	.24 <sup>bD</sup>	.18
9. Irrelevant Responsiveness	.00	.22 <sup>b</sup>	.24 <sup>b</sup>	.12	.00	.19 <sup>a</sup>
10. Creative Initiative	.00	.06	.03	-.10	.00	.00
11. Needs Closeness	.03	.16 <sup>a</sup>	.19 <sup>ad</sup>	-.14 <sup>a</sup>	.13	.06
Multiple R	.27	.35	.50 <sup>b</sup>	.32	.43 <sup>c</sup>	.40

a =  $p < .05$   
b =  $p < .01$

c =  $P < .001$   
d = significant beta  $< .05$   
D = beta  $.05 - .10$

Table 55

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Multiple regression analyses describing the relationship between behaviors in grade 1 and classroom conduct disturbance between the ages of 14 and 15, in each sex.

DESB Factors	Males			Females		
	14 (N=132)	15 (N=108)	14-15 (N=84)	14 (N=140)	15 (N=99)	14-15 (N=79)
1. Classroom Disturbance	.23 <sup>b</sup>	.00	.21 <sup>a</sup>	.15	.10	.13
2. Impatience	.08	.00	.08	.23 <sup>b</sup>	.05	.13
3. Disrespect Defiance	.16 <sup>a</sup>	.05	.20	.16 <sup>a</sup>	.20	.25 <sup>a</sup>
4. External Blame	.13	.01	.17	.00	.13	.22 <sup>a</sup>
5. Achievement Anxiety	-.02	.00	-.01	-.12	-.06	-.14
6. External Reliance	.06	.03	.06	.00	.01	.01
7. Comprehension	-.05	-.09	-.06	-.07	.02	.01
8. Inattentive Withdrawn	.16 <sup>a</sup>	.00	.14	.08	.00	-.09
9. Irrelevant Responsiveness	.12	.00	.13	.05	.10	.07
10. Creative Initiative	-.06	.10	.14	-.11	.11	-.01
11. Needs Closeness	.01	.00	.12	.04	.16	.14
Multiple R	.36	.20	.40	.40 <sup>b</sup>	.31	.47

a = p < .05  
b = p < .01

c = P < .001  
d = significant beta < .05  
D = beta .05 -.10

Table 56

Multiple regression analyses describing the relationship between behaviors in grade 2 and classroom conduct disturbance between the ages of 14 and 15, in each sex.

DESB Factors	Males			Females		
	14 (N=158)	15 (N=130)	14-15 (N=106)	14 (N=157)	15 (N=112)	14-15 (N=89)
1. Classroom Disturbance	.33 <sup>cd</sup>	.32 <sup>c</sup>	.43 <sup>cd</sup>	.30 <sup>cd</sup>	.36 <sup>cd</sup>	.42 <sup>cd</sup>
2. Impatience	.33 <sup>c</sup>	.20 <sup>a</sup>	.30 <sup>b</sup>	.19 <sup>a</sup>	.28 <sup>b</sup>	.31 <sup>b</sup>
3. Disrespect Defiance	.25 <sup>c</sup>	.32 <sup>c</sup>	.44 <sup>c</sup>	.27 <sup>c</sup>	.18 <sup>a</sup>	.37 <sup>c</sup>
4. External Blame	.31 <sup>cd</sup>	.15	.35 <sup>c</sup>	.21 <sup>b</sup>	.14	.00
5. Achievement Anxiety	.08	-.03	.08	.00	.02	-.07
6. External Reliance	.00	.06	.13	.14	.15	.12
7. Comprehension	-.27 <sup>c</sup>	-.04	-.13	-.17 <sup>a</sup>	-.07	-.11
8. Inattentive Withdrawn	.25 <sup>c</sup>	.07	.21 <sup>a</sup>	.00	.25 <sup>b</sup>	.00
9. Irrelevant Responsiveness	.26 <sup>c</sup>	.23 <sup>b</sup>	.30 <sup>b</sup>	.22 <sup>b</sup>	.30 <sup>c</sup>	.34 <sup>c</sup>
10. Creative Initiative	-.18 <sup>a</sup>	-.04	-.14	-.06	-.01	-.04
11. Needs Closeness	-.05	-.06	-.11	-.14	-.02	-.12
Multiple R	.43 <sup>c</sup>	.37	.51 <sup>b</sup>	.38 <sup>b</sup>	.45 <sup>b</sup>	.49 <sup>b</sup>

a = p < .05  
 b = p < .01  
 c = P < .001  
 d = significant beta < .05  
 D = beta .05 - .10

Tabel 57

-139- Multiple regression analyses describing the relationship between behaviors in grade 3 and classroom conduct disturbance between the ages of 14 and 15, in each sex.

DESB Factors	Males			Females		
	14 (N=166)	15 (N=133)	14-15 (N=108)	14 (N=178)	15 (N=127)	14-15 (N=101)
1. Classroom Disturbance	.33 <sup>cd</sup>	.23 <sup>b</sup>	.24 <sup>b</sup>	.26 <sup>c</sup>	.26 <sup>b</sup>	.35 <sup>c</sup>
2. Impatience	.09	.12	.00	.33 <sup>cd</sup>	.30 <sup>cd</sup>	.38 <sup>cd</sup>
3. Disrespect Defiance	.28 <sup>c</sup>	.18 <sup>a</sup>	.27 <sup>b</sup>	.29 <sup>cd</sup>	.20 <sup>a</sup>	.34 <sup>c</sup>
4. External Blame	.22 <sup>bd</sup>	.12	.17	.09	.00	.07
5. Achievement Anxiety	-.01	-.01	-.03	.07	-.04	.01
6. External Reliance	.12	.17 <sup>a</sup>	.11	.06	.08	.07
7. Comprehension	-.22 <sup>bd</sup>	-.12	-.16	-.11	-.12	-.13
8. Inattentive Withdrawn	.00	.17 <sup>a</sup>	.11	.18 <sup>a</sup>	.13	.16
9. Irrelevant Responsiveness	.15 <sup>a</sup>	.20 <sup>a</sup>	.17	.25 <sup>c</sup>	.30 <sup>cd</sup>	.34 <sup>c</sup>
10. Creative Initiative	.00	-.11	-.05	.00	-.06	-.04
11. Needs Closeness	.00	-.08	-.04	.11	.13	.19 <sup>ad</sup>
Multiple R	.43 <sup>c</sup>	.30	.40	.47 <sup>c</sup>	.45 <sup>b</sup>	.59 <sup>c</sup>

a =  $p < .05$   
b =  $p < .01$

c =  $P < .001$   
d = significant beta < .05  
D = beta .05 - .10

RESULTS: TOTAL HIGH RISK BEHAVIORAL ABERRANCE AND LATER DELINQUENCY AND MISCONDUCT (ANALYSES OF VARIANCE)

As a further check upon the regression findings, a high risk total aberrance score was devised, consisting of the total number of at-risk factors in a child's early behavior profile that exceeded the normal range of the DESB rating scale standardization sample (see Spivack & Swift, 1967). Factors 1, 2, 3, 4 and 9 were selected as most consistently defining high risk, and so scores could vary from "0" (none aberrant) to "5" (all high risk factor scores exceeding the normal range). Analyses of variance were performed, with high risk total aberrance score the independent variable and total number of police contacts in the history, total seriousness of official crimes in the history, total pink slip offense score during adolescence, and TRAS conduct disturbance score during adolescence as the dependent variables.

Table 58 provides the results of these analyses. With rare exception, the findings support the notion that elevated scores on these selected factors as a group quite early in the school history of such youngsters define risk for subsequent delinquent and/or serious misconduct in the community and schoolroom. The more of these behavior factors that are aberrant at any one point in time, the greater the chance of subsequent delinquency, misconduct, and poorly self-controlled behavior.

RESULTS: CHRONICITY OF THE HIGH RISK PATTERN AND LATER DELINQUENCY AND MISCONDUCT (ANALYSES OF VARIANCE)

Having identified the individual factors that define high risk, demonstrated their relevance to a variety of objective delinquent criteria, and shown that the more of such behavior at

Table 58

Analysis of variance describing the relationships between total number of high risk aberrant behavior factor scores in kindergarten and grade 3, and subsequent criterion scores of delinquency and conduct disturbance, in each sex.

Dependent Variables	Males				Females			
		Between/within	F ratio	P		Between/within	F ratio	P
<u>Number of Police Contacts</u>								
	K (N=331)	4/326	2.99	.02	K(N=328)	4/323	.80	.53
	3 (N=331)	4/326	2.58	.04	3(N=328)	4/323	.65	.63
<u>Seriousness of police contact crimes</u>								
	K (N=270)	4/265	2.10	.08	K(N=275)	4/270	2.19	.07
	3 (N=247)	4/242	2.69	.03	3(N=256)	4/251	7.86	.001
<u>Classroom conduct disturbance</u>								
Age 14	K (N=165)	4/160	2.35	.06	K(N=178)	4/173	2.79	.03
Age 15	K (N=134)	4/129	2.76	.03	K(N=126)	4/121	3.27	.01
Age 14-15	K (N=105)	4/100	2.61	.04	K(N=101)	4/96	3.30	.01
Age 14	3 (N=166)	4/161	4.06	.004	3(N=178)	4/173	5.02	.001
Age 15	3 (N=133)	4/128	2.19	.07	3(N=127)	4/122	4.19	.003
Ages 14-15	3 (N=108)	4/103	2.10	.09	3(N=101)	4/96	5.55	.001
<u>Seriousness of school delinquency</u>								
Age 13	K (N=167)	4/162	1.77	.14	K(N=181)	4/176	6.28	.001
Age 14	K (N=193)	4/188	3.18	.02	K(N=205)	4/200	2.94	.02
Age 15	K (N=172)	4/167	1.32	.27	K(N=180)	4/175	1.31	.27
Age 13-14	K (N=151)	4/146	1.85	.12	K(N=170)	4/165	4.80	.001
Age 14-15	K (N=156)	4/151	2.39	.05	K(N=169)	4/164	2.58	.04
Age 13	3 (N=163)	4/158	1.72	.15	3(N=188)	4/183	4.97	.001
Age 14	3 (N=198)	4/193	3.45	.01	3(N=215)	4/210	4.47	.002
Age 15	3 (N=170)	4/165	2.78	.03	3(N=188)	4/183	.93	.45
Ages 13-14	3 (N=150)	4/145	3.01	.02	3(N=175)	4/170	5.48	.001
Ages 14-15	3 (N=159)	4/154	3.71	.01	3(N=178)	4/173	4.61	.002

any one time (kindergarten or grade 3) the greater the chance for subsequent delinquency, the question arose as to whether chronicity of such early behavior was a further bad sign.

To examine this issue, four groups of children were defined. The chronic high risk group was defined as those who exhibited three or four high scores on high risk factors at both kindergarten and grade 3. The next most chronic group consisted of those who exhibited fewer than three elevated factors scores in kindergarten, but exhibited three or more by the time they reached grade 3. The next group consisted of those who exhibited three or more elevated factor scores in kindergarten, but fewer than three by third grade. The lowest group consisted of those who exhibited fewer than three elevated high risk factors scores both in kindergarten and third grade. Analyses of variance compared these four groups on the basis of the four subsequent criterion measures of delinquency and misconduct.

Table 59 indicates that chronicity of the high risk behavior pattern is more likely to characterize the early behavior pattern of both males and females with subsequent delinquency in the community (police contacts) and in school (pink slip referrals). As noted earlier, number of police contacts as a criterion measure for females is less sensitive than the total seriousness score because of the very narrow range of scores (i.e. few females with more than one contact). The absence of significant findings in males for the TRAS conduct disturbance measure is not easily explained, since data in Table 58 indicates significance when aberrance in kindergarten and grade 3 are considered separately.

Table 59

Analyses of variance describing the relationships between chronicity of high risk aberrant behaviors in kindergarten and grade 3, and subsequent criterion scores of delinquency and conduct disturbance, in each sex.

Dependent Variables	Males			Females		
	Between/within	F ratio	P	Between/within	F ratio	P
<u>Number of Police Contacts</u>	3/200	5.81	.001	3/216	1.71	.17
<u>Seriousness of police contact crimes</u>	3/200	5.82	.001	3/214	4.45	.005
<u>Classroom conduct disturbance</u>						
Age 14	3/134	1.86	.14	3/149	4.50	.01
Age 15	3/108	1.02	.39	3/106	5.45	.002
Ages 14-15	3/86	1.36	.26	3/84	5.39	.002
<u>Seriousness of school delinquency</u>						
Age 13	3/133	2.03	.11	3/163	4.00	.01
Age 14	3/157	2.83	.04	3/183	5.40	.001
Age 15	3/136	3.54	.02	3/160	2.74	.05
Ages 13-14	3/120	1.60	.19	3/154	5.39	.002
Ages 14-15	3/125	2.49	.06	3/153	6.50	.0004

It would appear that, in this instance, high risk as measured by total aberrance pattern at either point in time warrants concern in males, and that high risk pattern at both points in time adds nothing significant predictively to such a fact.

RESULTS: EARLY HIGH RISK BEHAVIOR PROFILES AND  
LATER POLICE CONTACT AMONG MALES

Prior analyses have consistently implicated a grouping of behavioral factors as defining a high risk behavioral "pattern." On occasion, however, other behavioral factors (e.g. inattentiveness, comprehension) have entered the picture, although without consistency. Further, these other factors are closely associated with classroom academic achievement (e.g. comprehension), raising the question of the place of early classroom achievement within any general high risk early behavioral grouping.

As an initial means of exploring these related issues, it was decided to consider the entire behavioral profile of each child in relationship to subsequent delinquent behavior. This would require a means of "typing" each child's total DESB behavioral profile, and relating membership in such types to a criterion of delinquency. Fortunately, a means of typing total DESB profiles had been developed by Spivack, Swift and Prewitt (1972), and one of the categories identified is characterized by elevation of the high risk 1, 2, 3, 4, 9, grouping. Two other profile types define youngsters who exhibit no marked behavioral aberration, and another defines youngsters who exhibit inattentiveness (factor 8) and external reliance (factor 6) but no high risk behavior as currently defined. Each behavioral profile from kindergarten through grade 3 could thus be categorized. At the criterion end, it was decided to select number of police contacts, specifically whether or not the youngster had subsequently become a "chronic" offender. The latter was defined as having had four or more official police contacts by the age of 18.

Table 60 describes the frequency with which early profile types subsequently had police contacts. Chi-square tests at each early

**CONTINUED**

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Table 60

Frequency and percent of chronic official police contact in males in relationship to total behavioral profiles in kindergarten and grades 1-3, and chi-square tests at each grade level

Profile Type	Kdgtn. f(%)	Grades		
		1 f(%)	2 f(%)	3 f(%)
No behavioral aberrance, high comprehension and creative involvement	2/61 (5%)	0/34 (0%)	1/32 (3%)	1/31 (3%)
No behavioral aberrance, average comprehension and creative involvement	5/63 (8%)	2/48 (4%)	0/45 (0%)	0/38 (0%)
High external reliance and inattentiveness, low comprehension and creative involvement	3/38 (8%)	1/27 (4%)	0/29 (0%)	2/24 (8%)
High risk profile type, at times including low comprehension and creative involvement and/or high external reliance and/or inattentiveness	15/108 (14%)	15/103 (15%)	21/132 (16%)	19/154 (12%)
Chi-square (ldf)	4.16 (p=.05)	8.00 (p=.001)	14.85 (p=.001)	4.90 (p=.05)

grade level are also presented. These compared the high risk profile types with the combined other three types on frequency of occurrence of chronic police contact. These analyses were done only in the male group because of the narrow distribution of number of police contacts in the female group. The data clearly indicate the significantly higher likelihood of chronic police contact among the high risk profile type whether high risk was defined at the end of kindergarten, first, second or third grade. The frequency of chronicity is 14%, 15%, 16% and 12% across these early grade levels. Combining the frequencies of the other three profile types at each early grade level, the percents are 6%, 3%, 1% and 3% respectively. In all cases, the chi-squares are significant. This is especially so in the first and second grades. In grade 1, of the 18 children who eventually become chronic offenders, 14 exhibited high risk profiles. In grade 2, of the 22 children who eventually became chronic offenders, 21 exhibited high risk profiles. When one compares the reliant-inattentive group with the non-aberrant groups, there is no evidence of a significant difference. The suggestion is that high risk is not related to any kind of aberrance, but rather a certain kind of aberrance. While inattentiveness or excessive external reliance may accompany a high risk early behavioral pattern, these do not in themselves signify risk for subsequent delinquency or misconduct. Similarly, the evidence suggests that early academic achievement associated behaviors (e.g. comprehension, creative involvement in classroom work: factors 7 and 10) do not in themselves define high risk. The youngsters who manifest excessively high inattentiveness and external reliance also manifest low comprehension and creative involvement in classroom work, yet the percentages of subsequent chronic police contact for them is not

significantly higher than for the two normal profile types.

On the other hand, it must be noted that not only do the high risk profile types include high levels of scores on the high risk factors, but also on factors 6 and 8, as well as low comprehension and creative involvement factor scores. The issue of whether early academic achievement may define early high risk for subsequent delinquency was explored more directly.

RESULTS: EARLY ACADEMIC ACHIEVEMENT AND LATER  
DELINQUENCY AND CLASSROOM MISCONDUCT

As a first step in examining more directly the relationship between early academic ability and later delinquency, measures of achievement between kindergarten and grade 2 were correlated with later measures of community and school delinquency and behavioral misconduct in the classroom. Selected measures of later academic achievement as well as total high risk aberrance scores in kindergarten and grade 3 were also correlated with the independent variables for interest and comparison. Prior results (see Table 32) indicated that academic ability and achievement scores through time correlated significantly over many years.

The results in Table 61 indicate that the Reading Readiness Test scores in kindergarten do not relate to later delinquency measures. In contrast, it will be noted that all correlations between total high risk aberrance in kindergarten and the same delinquency and misconduct measures are significant for both sexes. For males, teacher marks in reading in grades 1 and 2 correlate with both community and school delinquency measures, though not significantly so with conduct disturbance in the classroom eight to nine years later. For males, academic achievement test scores in grade 2 are consistently non-significant. While not impressive, these findings suggest that very early academic achievement may play a role in defining high risk, and this issue is further pursued below.

Among females, the findings are less impressive than those with males. Teacher marks are unrelated to measures of subsequent delinquency, with the exception of one significant finding between

Correlations between early academic achievement, early behavioral high risk aberrance and later academic achievement, and measures of delinquency and misconduct.<sup>a</sup>

Academic Achievement Measures	Delinquency/misconduct measures						
	Total # Police Contacts	Total Seriousness, Police Contacts		Total pink slip offenses: ages 14-16		Classroom Conduct disturbance: Age 15	
	males <sup>b</sup>	males	females	males	females	males	females
Reading readiness score (kindergarten)	-.08	-.03	.01	-.15	.11	-.01	-.11
Teacher marks in English (Grade 1)	-.10	-.14 <sup>a</sup>	-.04	-.22 <sup>b</sup>	-.02	-.12	-.04
Teacher marks in English (Grade 2)	-.18 <sup>b</sup>	-.21 <sup>b</sup>	-.11	-.16	-.09	-.15	-.18 <sup>a</sup>
Stanford Reading Score (Grade 2)	-.04	-.03	-.12	-.13	-.18 <sup>b</sup>	.07	-.11
High risk aberrance (kindergarten)	.20 <sup>c</sup>	.15 <sup>a</sup>	.14 <sup>a</sup>	.23 <sup>b</sup>	.22 <sup>b</sup>	.24 <sup>b</sup>	.30 <sup>c</sup>
High risk aberrance (Grade 3)	.20 <sup>c</sup>	.19 <sup>b</sup>	.22 <sup>c</sup>	.27 <sup>c</sup>	.29 <sup>c</sup>	.19 <sup>a</sup>	.29 <sup>c</sup>
Teacher marks in English (age 11)	-.29 <sup>c</sup>	-.25 <sup>c</sup>	-.23 <sup>b</sup>	-.10	-.12	-.13	-.09
Calif. Ach. Test, Reading (age 11)	-.18 <sup>b</sup>	-.17 <sup>b</sup>	-.05	-.09	-.15	-.06	-.15
Teacher marks in English (age 15)	-.14 <sup>a</sup>	-.15 <sup>a</sup>	-.14 <sup>a</sup>	-.13	-.21 <sup>b</sup>	-.10	-.35 <sup>c</sup>
Calif. Ach. Test, Reading (age 15)	-.24 <sup>c</sup>	-.20 <sup>b</sup>	-.14 <sup>a</sup>	-.18 <sup>a</sup>	-.20 <sup>b</sup>	.03	-.10

<sup>a</sup> a:p = .05; c:p = .01; Most Ns were in the range of 150-200.

<sup>b</sup> No female data reported due to infrequent occurrence of more than one police contact

teacher marks in reading in grade 2 and conduct disturbance at age 15, and the Stanford Test scores and total pink slip offense score between ages 14 and 16.

In contrast to these minimal relationships between early academic achievement and subsequent delinquency and classroom misconduct are the findings relating achievement at ages 11 and 15 with such measures. For both sexes, such later classroom and test measures of academic achievement correlate significantly with community delinquency (i.e. police contact scores). Delinquency in the school (i.e. pink slip total offense score) is also related to academic achievement scores at age 15 (i.e. at about the same time), but none of the correlations with achievement at age 11 are significant. These data, together with the less consistent correlations between early academic achievement and subsequent delinquency suggest that poor academic achievement is more likely to accompany delinquency than cause it in any direct sense.

The relative absence of significance in correlations between later achievement measures and classroom misconduct at age 15 is not easy to explain. In general, one would expect a direct relationship between degree of negative attitude and impulsive angry behavior, and academic achievement. No such relationship emerges clearly in these data.

While the pattern of reported correlations does not support the notion of academic achievement playing a significant role in defining early high risk for delinquency, its role as a possible causative agent could not be ruled out. The possibility still

existed that poor achievement in early grades might play an indirect role as a stress agent which brings forth the high risk behavior pattern in youngsters prone to react in this fashion.

In order to examine the possibility of indirect vs direct early causative effects for academic achievement, a series of hierarchical regression analyses were done, following the approach of Farnworth (1982; see also Alexander & McDill, 1976; Wiatrowski, Hansell, Massey, & Wilson, 1982). Employing this approach, the measures of delinquency and misconduct were regressed upon measures of early high risk aberrance in kindergarten and grade 3, and measures of academic achievement in grades 1 and 2, all of which were found to significantly correlate with the delinquency criteria measures. Following the notion that early academic achievement might play an indirect role through subsequent high risk behaviors (and not the reverse), the steps in the hierarchical analyses involved initial regression upon kindergarten high risk aberrance, then adding in the effects of subsequent early academic achievement, and finally subsequent high risk aberrance in grade 3. This sequencing would allow for examination of whether academic achievement might function independently or only indirectly through high risk behaviors. These analyses would also indicate whether significant effects of early behavioral aberrance (eg. in kindergarten) functioned directly, or indirectly through subsequent aberrance (e.g. at the end of third grade.

Standardized parameter coefficients for each of the sequential regression runs in each analysis are reported below for each sex. As predictor variables are added, changes which occur in parameter effects of the variable (s) entered earlier indicate indirect effects for the earlier variable(s) through the subsequent intervening variable. The partial regression coefficients provided in each table indicate degree (significance) of direct effect(s) at that stage, holding the other variables at that stage constant.

Table 62 presents the findings for hierarchical regression analyses in males wherein police contact data are regressed on high risk aberrant behavior in kindergarten and grade 3, and teacher marks in reading at grade 2. The findings are the same whether total number of police contacts or total seriousness of police contacts are considered. When academic achievement is introduced, kindergarten high risk aberrance maintains its significance, indicating that it functions directly in relationship to police contact. However, when high risk behavior in grade 3 is added, the decrease in partial regression coefficients for both earlier variables suggests that both have indirect paths of effect through grade 3 high risk behavior. Regarding early academic achievement, its effects are only felt through subsequent high risk behavior. Regarding early (kindergarten) high risk aberrant behavior, its effects also are only indirect through subsequent high risk behavior, a finding consistent with data reported earlier suggesting higher risk with chronicity of high risk behavior. In essence, the data suggest that to the extent early academic achievement is implicated in early risk for delinquency in the community, it is by bringing on high risk

Table 62

Early behavioral and academic factors affecting official police contact criteria in males (N = 152)

	Behavioral Aberrance in Kindergarten		Teacher marks in grade 2		Behavioral Aberrance in Grade 3		R <sup>2</sup>
	Total # Police Contacts	Total Seriousness Score	Total # Police Contacts	Total Seriousness Score	Total # Police Contacts	Total Seriousness Score	
1.	.20 <sup>b</sup>	.18 <sup>a</sup>					.04 <sup>b</sup> .05 <sup>a</sup>
2.	.19 <sup>a</sup>	.16 <sup>a</sup>	-.16 <sup>a</sup>	-.16 <sup>a</sup>			.07 <sup>b</sup> .06 <sup>b</sup>
3.	.12	.10	-.12	-.12	.22 <sup>b</sup>	.19 <sup>a</sup>	.11 <sup>c</sup> .09 <sup>b</sup>

<sup>a</sup> p = .05

<sup>b</sup> p = .01

behaviors.

The findings relative to delinquency in the school, as measured by pink slip total offense score, are presented in table 63 for both sexes. The findings for females closely match the findings reported above for males relative to community police contact. That is, the causal effect of academic achievement is only indirect, functioning through behavioral aberrance in grade 3. Some of the effects of behavioral aberrance in kindergarten also functions through behavioral aberrance in grade 3, but also maintains significant though reduced direct effect. These data support the earlier conclusion: that early academic failure may be part of a high risk picture only because it brings on the high risk behavior pattern.

The findings for males relative to school delinquency are not clear cut. All three coefficients just miss being significant at the .05 level when combined. Behavioral aberrance in kindergarten maintains an almost significant direct effect after introducing both subsequent academic achievement and behavioral aberrance, and achievement maintains its almost significant direct effects after introducing behavioral aberrance in grade 3.

RESULTS: ACADEMIC ACHIEVEMENT AND MISCONDUCT IN THE INTERMEDIATE GRADES, AND SUBSEQUENT DELINQUENCY AND SCHOOL MISCONDUCT

Since the early hierarchical analyses indicated only an indirect early causal involvement of academic achievement in subsequent delinquent behavior, an attempt was made to further pursue this issue by performing hierarchical regression analyses upon behavioral aberrance data in grade 3, academic achievement

Table 63

Early behavioral and academic factors affecting school delinquency in Males (N=99) and Females (N=146)<sup>e</sup>

	<u>Behavioral abberance in kindergarten</u>		<u>Academic achievement in grade 2</u>		<u>Behaviorial abberance in grade 3</u>		<u>R<sup>2</sup></u>
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	
1.	.25 <sup>b</sup>	.24 <sup>b</sup>					.06 <sup>b</sup> .06 <sup>b</sup>
2.	.24 <sup>b</sup>	.23 <sup>b</sup>	-.19 <sup>a</sup>	-.17 <sup>a</sup>			.10 <sup>b</sup> .09 <sup>c</sup>
3.	.19 <sup>d</sup>	.16 <sup>a</sup>	-.17 <sup>d</sup>	-.14	.18 <sup>d</sup>	.29 <sup>c</sup>	.13 <sup>b</sup> .17 <sup>c</sup>

<sup>a</sup>  $p = .05$

<sup>b</sup>  $p = .01$

<sup>c</sup>  $p = .001$

<sup>d</sup>  $p = .06 - .07$

<sup>e</sup> = The measure of achievement for males is teacher marks, and the measure for females is Stanford test scores.

performance two years later (grade 5), classroom misconduct in grade 8, (e.g. department grades or HHSB "delinquency scale" scores), from the criteria measures of subsequent police contact and school delinquency (e.g. pink slips). At the same time, it was possible to assess a related causal pattern suggested by the primary grade hierarchical analyses: that early behavioral aberrance leads to subsequent (intermediate grade) aberrance, which in turn comes to define delinquency during adolescence.

In order to perform such analyses, all hierarchical analyses were run wherein prior paired-deletion correlational tests indicated significance of relationships between all earlier variables and the subsequent criterion delinquency measures. Since there was an inevitable loss of cases in the conduct of the hierarchical analyses, since only those cases could be used upon whom all data were available, there were instances wherein significant paired-deletion correlations were no longer significant. This loss of cases also resulted in some instances in reduced variance accounted for, but the results would still allow the theoretical issue to be addressed.

The hierarchical analyses reported below are all instances wherein both the behavioral aberrance measures (i.e. in grade 3 and five years later) were still significant, even though the significant correlation between academic achievement and delinquency was lost.

Two hierarchical analyses for males met these criteria and are reported below. Table 64 reports on total number of aberrant

Table 64

Behavioral aberrance and academic factors during intermediate grades, affecting subsequent police contact delinquency measures in males

<u>Behavioral aberrance in grade 3</u>		<u>Teacher Marks in Grade 5</u>		<u>Teacher Department Marks in Grade 8</u>		<u>R<sup>2</sup></u>
<u>Total # police contacts</u>	<u>Total seriousness scores</u>	<u>Total # police contacts</u>	<u>Total seriousness scores</u>	<u>Total # police contacts</u>	<u>Total seriousness scores</u>	
.13 <sup>d</sup>	.13 <sup>d</sup>					.02 <sup>d</sup> .02 <sup>d</sup>
.07	.09	-.21 <sup>b</sup>	-.15 <sup>d</sup>			.06 <sup>b</sup> .04 <sup>a</sup>
.03	.01	-.19 <sup>a</sup>	-.12	-.24 <sup>b</sup>	-.23 <sup>b</sup>	.11 <sup>c</sup> .08 <sup>b</sup>

<sup>a</sup>p = .05

<sup>b</sup>p = .01

<sup>c</sup>p = .001

<sup>d</sup>p = .10

high risk behavioral factors in grade 3, teacher reading marks two years later, teacher department grades three years after that, and subsequent police contact scores. The results for total seriousness score suggest a snow-balling effect, wherein grade 3 behavioral aberrance functions indirectly through academic failure two year's later, and both then function indirectly through subsequent poor department to total life delinquency seriousness. The findings for total number of police contacts follows a very similar pattern, with the exception that teacher marks in English maintain a significant though slightly reduced direct effect.

Table 65 presents female data for total seriousness of police contact. Among females for police data, the pattern is significantly different from that for males, only high risk behavioral aberrance at grade 3 maintains its direct significance independent of the operation of subsequent academic achievement and teacher department grades. Tables 66 and 67 present female data when the school pink-slip measure of delinquency was employed. Both analyses provide similar results. While zero order correlations between teacher academic marks and subsequent delinquency in school were significant, the independent effect of early academic achievement upon subsequent delinquency is insignificant. In contrast, it would appear that early high risk behaviors either maintain their direct effects upon school delinquency, or function indirectly through school misconduct in early adolescence.

Table 65

Behavioral aberrance and academic achievement during intermediate grades, affecting subsequent total seriousness of police contact delinquency in females (N=133)

	<u>Behavior aberrance in Grade 3</u>	<u>Teacher marks in grade 5</u>	<u>Teacher deoportment marks in grade 8</u>	<u>R<sup>2</sup></u>
1	.20 <sup>a</sup>			.04 <sup>a</sup>
2	.20 <sup>a</sup>	-.10		.05 <sup>a</sup>
3	.17 <sup>a</sup>	-.08	-.13	.07 <sup>a</sup>

Table 66

Behavioral aberrance and academic achievement during intermediate grades affecting subsequent school delinquency (pink slips) in Females, (N=102)

	<u>Behavior aberrance in grade 3</u>	<u>Teacher marks in grade 5</u>	<u>Teacher deoportment marks in grade 8</u>	<u>R<sup>2</sup></u>
1	.19 <sup>a</sup>			.03 <sup>a</sup>
2	.19 <sup>a</sup>	-.14		.05 <sup>a</sup>
3	.09	-.03	-.35 <sup>c</sup>	.15 <sup>c</sup>

<sup>a</sup> p = .05

<sup>c</sup> p = .01

<sup>c</sup> p = .001

Table 67

Behavioral aberrance and academic achievement during intermediate grades affecting subsequent school delinquency (pink slips) in females, (N = 137).

	Behavior aberrance in grade 3	Teacher marks in grade 5	Teacher HHSB "Delinquency" Scores in grade 8	R <sup>2</sup>
1	.20 <sup>b</sup>			.04 <sup>b</sup>
2	.20 <sup>b</sup>	-.12		.05 <sup>a</sup>
3	.13	-.07	.23 <sup>b</sup>	.10 <sup>b</sup>

<sup>a</sup>p = .05

<sup>b</sup>p = .01

In summary, the data examining the relationship between academic performance and delinquency indicate that, for both sexes, early academic achievement is only minimally implicated in the early at-risk picture, and in those few instances where it is, its effects are indirect, operating through at-risk aberrant behaviors and/or subsequent misconduct that may lead to delinquency. Significant correlations between concurrent measures of academic achievement and delinquent behavior during adolescence (see Table 61) are therefore not evidence that academic failure causes delinquency (or vice versa), but that both evolve to a significant degree out of a common particular maladaptive coping pattern that is identifiable quite early in school. Further, the data suggest that this early coping (high risk) pattern (i.e. in kindergarten) functions through the same pattern (e.g. in grade 3), and at least in part indirectly through subsequent pre-delinquent school misconduct (e.g. in grade 8), significantly contributing to the emergence of a life-long delinquent pattern in the community and at school. It is conjectured that this early high risk coping pattern is a general way of coping with failure and/or stress (whether academic or otherwise) that characterizes some children of both sexes.

RESULTS: SUMMARY

Descriptive findings

Police contact and self-reported delinquency:

1. 39% of males and 16% of females had at least one police contact.
2. 11% of males and 1% of females had three or more police contacts.
3. Ages of high frequency for both sexes were 11-12 and 15-16, and age of onset did not differ.
4. Early age of onset of police contact was a poor prognostic sign.
5. There was a significant relationship between official police contact and self-reported police contact; those with official contact who did not self-report police contact had less serious histories of police contact.
6. In both sexes there was a high level of hitting and attacking behavior reported; 22% of males and 17% of females reported hitting teachers; 18% of males and 17% of females reported attacking others with the idea of doing serious harm.
7. Males reported, with about twice the frequency of females, chronic theft and dealing with stolen goods (34%), breaking and entering (19%) having stolen a car (13%), and stolen items valued as over \$50 (15%).
8. While a small minority of youth get involved in chronic or serious delinquency, a large percentage commit one or two delinquent acts sometime during their childhood or adolescent years.
9. Youth seem in large part to be willing to admit to a variety of delinquencies, although those involved in a few or less serious crimes are more likely not to report them than are those more chronically involved.

Delinquency-related attitudes and beliefs:

1. The large majority of both sexes reported that socially deviant acts were "wrong."
2. One-third of both sexes felt "...it is alright to get around the law if you can get away with it."
3. Half of each sex felt that the police were fair and had their respect, while the other half did not.
4. On the average, youth of both sexes gave responses indicating they felt it important to be honest with their families and teachers, and to work in school, suggesting that most share the larger culture's values regarding these matters.
5. Specific responses to questions tapping commitment to adult and school values indicated adherence to these values.
6. 50-60% of both sexes said they aspired to obtain some college education in the future.
7. While the majority expressed awareness of "positive" values and perhaps some identification with them, some may not act upon these values in the community or school.

School delinquency and conduct disturbance:

1. In contrast to police (community) delinquency, there was no sex difference in frequency of school delinquency as measured by pink slips: 33-44% of both sexes obtained at least one each year in grades 8-10; sexes did not differ in likelihood of committing a major or minor offense.
2. From year to year there were some repeaters, there being more consistency among males than females.
3. The consistency of misconduct from year to year was revealed

in the correlations between department grades from year to year over a six year teenage period, correlations varying within the .40s.

4. Moderate consistency of classroom misconduct was noted in the TRAS scores, especially among males: .30-.40 from one course subject to another, and .20-.30 from one year to another.

Emotional adjustment:

1. 10% (40 males and 25 females) had a contact with a community mental health center before the age of 16.
2. Self-report of subjective feelings of well-being at age 18 indicated that the large majority of youth did not experience excessive amounts of anger, anxiety, depression, or lack of hope; correlations between these measures indicated that responses were not being given randomly although there might have been a tendency to minimize the report of such feelings.
3. Wide variability of the distribution of TRAS scores tapping social reticence and anxiety indicated that a number of both males and females exhibited such behaviors; significant correlations of scores across adolescent years and between ratings from English and Math classes indicated a consistent quality in the youth studied.

Academic achievement behaviors:

1. From kindergarten and through high school, academic achievement test scores indicated that the group under study achieved well below national norms: between 75% and 85% of scores always fell below national norms.
2. The correlations between test scores from year to year were very high, with the correlations between reading readiness scores

at the end of kindergarten and CAT scores 10 years later being in the .40s; a similar pattern emerged with teacher marks as the measure, although the correlations were slightly lower.

3. 97 males and 54 females repeated a grade at least once; peak periods of repeat were 3rd and 9th grades (ages 8 and 15).

Drug use when 17-18 years of age:

1. There were not sex differences in the use of substances.
2. The frequency of use data closely approximated national norms for adolescents of that age.
3. The rate of use of marijuana was relatively high, with 25% using it at least once a week.
4. 27% of males used alcohol at least once a week, while 11% of females did so.
5. The use of other substances was low, with the exception of use of cocaine in males which reached 27% of the group at least once a month.
6. While the rate of non-alcoholic drug use was not exceedingly high, the rate of multiple use over a one year period suggested active exploration and experimentation.
7. While there was a significant relationship between the use of alcohol and marijuana (66% of alcohol users used marijuana), the use of alcohol was unrelated to the use of other drugs.
8. While there was a significant relationship between the use of marijuana and other non-alcoholic drugs (95% of other drug users also used marijuana), 86% of marijuana users did not use other drugs.

Factor analyses

1. Factor analyses of all follow-up criterion variables revealed two factors identical for both sexes, one similar factor, and one factor in each sex unique to that sex.

2. In both sexes a factor emerged comprised of officially recorded police contact, school delinquency (pink slips), classroom misconduct, and academic failure, with no loadings on self-reported delinquency, drug use, commitment to parents or school, or attitudes toward the law, police or socially defiant behavior; these findings may reflect to some extent the circumstance of data collection (i.e. self-report at age 18 vs official records throughout the years), but this fact does not explain why all self-report data did not fall on one factor.

3. The findings suggest the wisdom of considering official and self-report delinquency data separately.

#### Predictive findings

1. While there was slight variation in the specific early behaviors that define high risk for later delinquency and misconduct in both community and school, a grouping of four behavior factors was common in all instances: factors 1, 2, 3, and 9. These behaviors define at a behavioral level the general capacity for "self-regulation" of both motor and cognitive functions when a child must cope with stress.

2. The more these behaviors were in evidence during the initial school years, both in intensity and chronicity, the more likely the child was to be vulnerable to delinquency and misconduct when later confronted with demands to grow and conform.

3. The pattern was the same for both sexes, even though the likelihood of labeling behavior as delinquent differed for the sexes depending upon circumstances (in the community vs in the school).

4. Indices of academic achievement in early grades seldom correlated with subsequent measures of delinquency and misconduct; academic achievement measures only correlated consistently with delinquency measures during adolescence.

5. When in males an early academic achievement index (in grade 2) correlated with subsequent delinquency in the community years later, the potential deleterious effect of academic failure appears to function indirectly by bringing about an increase in the high risk behavior pattern (in grade 3); in females there was no relationship between early academic performance and subsequent delinquency in the community.

6. In those instances when later academic failure (grade 5) among males might have played a causative role in bringing about subsequent delinquency in the community, the evidence indicated a snowballing phenomenon: high risk behavior leads to academic failure which in turn leads to misconduct, which then leads to delinquency; academic failure may only begin to have a direct impact upon the likelihood of delinquency in the community at about the age of 10.

7. Among females, academic failure did not appear to play a direct role in subsequent delinquency in the community (up through the years presently reported); only the prior high risk behavior pattern and subsequent measures of misconduct indicated vulnerability.

8. When school delinquency (as measured by pink slips) was considered, a slightly different pattern emerged. For both sexes, when an index of academic achievement correlated with subsequent delinquency, its effect maintained a direct causative path along with the high risk behavior pattern; however, when the potential causative impact of academic failure at grade 5 was considered, impact was discovered to be indirect, acting through both poor

deportment and classroom disturbed/restless and verbally negative behaviors; these findings suggest again that while academic failure may play a role in a causative chain of events, its early impact is by way of exasperating the high risk, poor self-regulation problem of such vulnerable children.

DISCUSSION

There is currently ample evidence that, at least among males, early signs of excessive aggressiveness and/or anti-social behavior are high risk signs for later anti-social and delinquent behavior. A recent review of much of the literature by Loeber (1982) suggests that early onset and high density of anti-social behavior during preadolescence predicts such behavior in later years. Robins, Murphy, Woodruff and King (1971) have reported that this relationship is particularly striking among blacks.

The present findings add to the current body of data by (1) studying behavior patterns that typify children prior to the emergence of those behaviors that society labels "anti-social" or "criminal", (2) articulating these behaviors through the use of reliable measurement devices that may be employed in normal school settings, (3) demonstrating the existence of the same high risk pattern in both sexes, and (4) defining a high risk pattern that discriminates among youth all of whom were at risk for delinquent and disturbed behaviors due to their socioeconomic circumstances.

The core elements in this early high risk pattern deserve scrutiny for what they may tell us about such vulnerable children. They include (1) the tendency in the classroom to become involved in poking and annoying social behavior, as well as excessive talking and noisemaking, (2) impatience, reflected in the tendency to rush into things before listening or judging what is best to do, and apparent need to move ahead constantly without looking back or reflecting upon the past, and (3) self-centered verbal responsiveness characterized by interruption of others, irrelevance of what is said in the context of ongoing conversation, and blurting out of personal thoughts with insufficient self-criticality. While there may at times be defiance and negativism, such negativism is not necessarily an early element. Examination

of these behaviors reveals that they reflect problems in the interpersonal sphere (which often elicit adult attempts to enforce external controls), as well as problems in the cognitive sphere. In these extremes, such youngsters are overly involved socially, and unwilling or unable to modulate their own motor and cognitive behaviors so as to accommodate to others around them. They appear unable to contain tension and their own desires. What comes into their minds they say, and where there is "action" they are drawn to it like a moth to light. If they do appreciate the perspective of others (and they may very well not), they do not manifest evidence of willingness to take the needs of others into account.

Given this syndrome of elements, it is easy to see how such a child might easily come into conflict with early adult authority, especially in settings which demand self restraint and accommodation to numerous social and task demands, such as occur in the classroom. While such behaviors may not have their origins in hostile intent, it is easy to imagine such children quickly becoming involved in negative peer interchanges and angry adult reactions, all of which would quickly snowball and manifest themselves, with increasing age, in the kinds of behavior we label as anti-social.

The fact that this high risk pattern emerges in both sexes prior to experience with formal academic exposure does not preclude the stress of academic failure from playing a part in the total early causative pattern. In fact, the present findings suggest that doing poorly in school work exacerbates the high risk behavior pattern of the vulnerable child, as may a variety of social and task demands and stressors that elicit this maladaptive coping style. What may be significant is not the existence of such stress, or the presence of this response pattern, but the snowballing effect of stress, a poor coping pattern, negative adult reaction and failure.

Such an interactive conception is consistent with the work of Chess and her colleagues, (Chess, 1966, 1967; Chess, Thomas, Rutter and Birch, 1963). This longitudinal work suggests one must consider the interaction of the child's basic temperament, and the particular quality of stresses with which he/she is confronted, in trying to determine whether the child will manifest a behavioral disturbance. Of three temperamental groups of children identifiable quite early in life (Chess, 1966) one seems quite relevant to the present data. This child exhibits early signs (i.e. during early months of life) of irregularity, non-adaptability to change, predominantly negative responses to new stimuli, predominantly negative mood, and intense emotional reactions. Of especial interest is the fact that for such a "difficult child", the most stressful circumstances are generally those that demand socialization, and alteration in spontaneous responses and patterns in order to conform with family, school or peer group. Disturbance occurs when such adult demands are made in an inconsistent, impatient or punitive manner (Chess, 1967). When these children manifest disturbance, the latter involves "active symptoms," such as tantrums, aggressive behavior, and habit disturbances (Chess, et. al., 1963).

One notes some similarity between elements of the "difficult child," temperamentally speaking, and the early behavioral pattern of the high risk, vulnerable child that has emerged in the current longitudinal study. It suggests the possibility that the high risk signs reflect the failure of a temperamentally "difficult child" to adapt to the early demands in school for socialization (e.g. in kindergarten) and/or the subsequent demands in the primary grades, demands to sit still in class, pay attention to the teacher, accommodate inner desires and wishes to those of others, and conform in the variety of ways that are inconsistent with the child's temperament, yet are

requirements of most early learning environments.

Chess (1966) suggests that such children require unusual firmness, patience, consistency and tolerance on the part of adults when they are under stress, in order to avoid subsequent problems with them. Bates (1969), in his discussion of the concept of difficult temperament extends the dynamics of what occurs between mother and child by proposing that it may be the mother's perception of the meaning of the difficult behavior that makes the difference. If such behavior is perceived in a negative light, mothers react adversely with negative feelings and rejection (Milliones, 1978), and such negative rejection has been shown to lead to serious acting out and aggressive problems (Lorion, Cowen, Kraus, and Milling, 1977). There is no reason to doubt that the same dynamics may continue to operate in the classroom from kindergarten on, initial signs of the high risk pattern reflecting an early pattern of stress-temperamental reaction and failure-negative adult perception and reaction-high risk coping reaction to adult negative reaction-negative adult reaction, and so on, which soon gives birth to the more blatant antisocial and delinquent behaviors. While only speculative, it would certainly be likely that youngsters caught up early in such negative interaction with their social environments would not evolve positive bonds to family or school or the social order. Such a child is unable to do what must be done to "learn" conventional behavior because he or she cannot contain tension, reflect, and modulate action to make the needed accommodations, and these deficiencies become compounded with negative affect.

The advisability of early intervention is suggested by two findings. The first is the fact that once the high risk pattern becomes chronic, chances for subsequent delinquent behavior increases significantly. The second finding is evidenced in Table 67, which describes the incidence of the high risk,

Table 67  
The Frequency of High Risk Males  
and Females from Kindergarten to grade 3

Grade	MALES		FEMALES		N	
	N	# Aberrant factors		# Aberrant factors		
		4	5	4		5
Kindergarten	267	7%	7%	4%	3%	279
Grade 1	211	8%	9%	5%	4%	215
Grade 2	244	9%	9%	5%	2%	236
Grade 3	243	14%	16%	9%	3%	262

vulnerable pattern in the present sample between kindergarten and grade 3. Taking factors 1, 2, 3, 4, and 9 as comprising the high risk grouping, the table describes the percent of males and females who exceeded the normal range on 4 and 5 of these factors while in kindergarten, grade 1, grade 2 and grade 3. By grade 3, 30% of the males and 12% of the females could be considered vulnerable. A second fact is striking in the male group: the sharp rise in frequency of the vulnerable pattern from kindergarten to grade 3. Such a finding is consistent with the view that once the pattern begins to emerge, especially in males, there is a snowballing effect through which matters get worse with time.

Two possible lines of new research would seem worthwhile. One line is to further articulate the nature of the cognitive and behavioral characteristics of such children, and to trace their precursors during early developmental years. Uncovering such precursors would not only add to our understanding of this form of vulnerability, but suggest specific preventive interventions appropriate to very early developmental years. One avenue of such research might examine the issue of "match" between parental childrearing styles and child temperament, hypothesizing that the high risk pattern will emerge with greatest frequency when children with a "difficult" temperament have parents who perceive such behavior in a negative light (e.g. as reflecting negatively upon them as people, or causing them anxiety and annoyance), and who then respond to the child impatiently, punitively, and without understanding of the child's needs and temperamental predisposition. A parallel process may also be operating in such a match, one in which the child with such a temperament is quick to model his or her behavior after parents with similar temperaments or behavior patterns. The possibility of such an interactive mode is supported by the work of Bronson (1966;1966a). Analysis of the Berkeley Guidance Study

longitudinal data indicated a placid-controlled/reactive-explosive behavioral dimension or "central orientation" that remained a relatively stable quality between the ages of 5 and 16. At one end of this dimension are such behaviors as overreactivity to stimulation, poor control, and generally unconfoming or rebellious behaviors. Correlates of this dimension included the tendency to complain, quarrelsomeness, tantrums, and restlessness. Such behaviors seem quite similar to the qualities of "difficult temperament" as well as the present high risk pattern. Of relevance to the present point, however, is that Bronson (1966a), in relating this dimension to early family relationships, discovered that reactive-explosive behaviors throughout childhood were related in both sexes to hostility and indifference exhibited in the father-mother relationship, as well as erratic and poor maternal discipline with the child, qualities noted by Chess (1966) as creating a snowballing negative effect when combined with infant "difficult temperament." This was further coupled with hostility in the relationship between each parent and the boys. Eron (1980) has pointed out that the more a child is punished for aggression at home, the more aggressive the child is at school, adding that punishment might very well provide a model for the child.

It will also be recalled that one element of the high risk pattern is the tendency of such a child to become overly involved socially in annoying behavior and to stir up and interfere with the work of others. It could very well be that such children naturally gravitate to active engagement with others, and through this get reinforcement for such a behavioral style. In a similar sense such children might be attracted to equivalent content T.V., or to delinquent peers, if exposed together, because the activities presented by both are a match for the behavioral and cognitive styles that develop out of early developmental interactions.

A second line is to research means of intervention that might ameliorate this vulnerable behavioral pattern and thus decrease chances of it evolving into an anti-social pattern. One possible form of intervention has already demonstrated effectiveness in decreasing certain elements of the high risk pattern by enhancing the child's interpersonal cognitive problem solving skills (see Spivack and Shure, 1982). Such training enhances the child's interpersonal cognitive sensitivities and general reflectiveness about how to deal with problems in terms of options and consequences, and seems to increase the ability or willingness of the child to contain tension as well as think through a problem situation. A second form of prevention might be to specify the best styles of response to such high risk children that adults (e.g. parents, teachers) might adopt so as to avoid or interrupt the child-adult negative cycle, and to teach these to childrearsers, teachers and caregivers. Significant elements in such training would be to establish a productive adult perception of high risk behaviors and what they mean, and a childrearing style that is firm (but not hostile) consistent (but not rigid), and oriented toward enhancing those social cognitive skills that function as mediators of self-regulated functioning.

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Appendices

- A. DESB Rating Scale
- B. 'Philadelphia Youth Survey'
- C. Informed Consent Form
- D. Police Record Forms 75-163 and 75-48
- E. Weighting System for Seriousness Scores
- F. Pink Slip Form Methodology
- G. HHSB Rating Scale
- H. TRAS Rating Scale
- I. Counselor Form

# DEVEREUX ELEMENTARY SCHOOL BEHAVIOR RATING SCALE \*

George Spivack, Ph.D. and Marshall Swift, Ph.D.

Devereux Foundation Institute for Research and Training

Student's Name \_\_\_\_\_ Teacher's Name \_\_\_\_\_  
Student's Sex \_\_\_\_\_ Age \_\_\_\_\_ Academic Subject \_\_\_\_\_  
Grade \_\_\_\_\_ School \_\_\_\_\_ Date of Rating \_\_\_\_\_

## RATING GUIDE

- |   |  |
|---|--|
| 1. Base rating on student's <u>recent and current</u> behavior. | Consider only the behavior of the student over the past month.   |
| 2. Compare the student with normal children his age.            | The standard for comparison should be the average youngster in the normal classroom situation.   |
| 3. Base rating on your own experience with the student.         | Consider only your own impression. As much as possible, ignore what others have said about the student and their impressions.  |
| 4. Consider each question <u>independently</u> .                | Make no effort to describe a consistent behavioral picture or personality. It is known that children may show seemingly contradictory behavior.  |
| 5. Avoid interpretations of "unconscious" motives and feelings. | As much as possible, base ratings on outward behavior you actually observe. Do not try to interpret what might be going on in the student's mind.  |
| 6. Use <u>extreme</u> ratings whenever warranted.               | Avoid tending to rate near the middle of all scales. Make use of the full range offered by the scales.   |
| 7. Rate each item quickly.                                      | If you are unable to reach a decision, go on to the next item and come back later to those you skipped.  |
| 8. Rate <u>every</u> question.                                  | Attempt to rate each item. <u>If you are unable to rate a particular item because it is not appropriate to the child in question, or because of lack of information, circle the item number.</u> |

YOU ARE GOING TO RATE THE OVERT BEHAVIOR OF A STUDENT. FOR ITEMS 1-26 USE THE RATING SCALE BELOW. WRITE YOUR RATING (NUMBER) FOR EACH ITEM IN THE BOX TO THE LEFT OF THE ITEM NUMBER.

Very frequently 5      Often 4      Occasionally 3      Rarely 2      Never 1

COMPARED WITH THE AVERAGE CHILD IN THE NORMAL CLASSROOM SITUATION, HOW OFTEN DOES THE CHILD...

Table with 2 columns: Rating (1-5) and Item (1-26). Items include: 1. Start working on something before getting the directions straight? 2. Say that the teacher doesn't help him enough... 3. Bring things to class that relate to current topic... 4. Tell stories or describe things in an interesting and colorful fashion... 5. Speak disrespectfully to teacher... 6. Initiate classroom discussion? 7. Act defiant... 8. Seek out the teacher before or after class... 9. Belittle or make derogatory remarks... 10. Get the point of what he reads or hears in class? 11. Have to be reprimanded or controlled by the teacher... 12. Poke, torment, or tease classmates? 13. Annoy or interfere with the work of his peers in class? 14. Tell stories which are exaggerated and untruthful? 15. Give an answer that has nothing to do with a question... 16. Break classroom rules... 17. Interrupt when the teacher is talking? 18. Quickly lose attention when teacher explains something... 19. Offer to do things for the teacher... 20. Makes you doubt whether he is paying attention... 21. Introduce into class discussion personal experiences... 22. Get openly disturbed about scores on a test... 23. Show worry or get anxious about knowing the "right" answers? 24. Look to see how others are doing something before he does it... 25. Complain teacher never calls on him... 26. Make irrelevant remarks during a classroom discussion?

FOR ITEMS 27-47 USE THE RATING SCALE BELOW:

Extremely 7      Distinctly 6      Quite a bit 5      Moderately 4      A little 3      Very slightly 2      Not at all 1

COMPARED WITH THE AVERAGE CHILD IN THE NORMAL CLASSROOM SITUATION, TO WHAT DEGREE IS THE CHILD...

Table with 2 columns: Rating (1-7) and Item (27-47). Items include: 27. Unable to change from one task to another when asked to do so... 28. Oblivious to what is going on in class... 29. Reliant upon the teacher for directions... 30. Quickly drawn into the talking or noise-making of others... 31. Outwardly nervous when a test is given? 32. Unable to follow directions given in class... 33. Sensitive to criticism or correction about his school work... 34. Prone to blame the teacher, the test, or external circumstances... 35. Able to apply what he has learned to a new situation? 36. Sloppy in his work... 37. Likely to know the material when called upon to recite in class? 38. Quick to say work assigned is too hard... 39. Responsive or friendly in his relationship with the teacher... 40. Likely to quit or give up when something is difficult... 41. Slow to complete his work... 42. Swayed by the opinion of his peers? 43. Difficult to reach... 44. Unwilling to go back over his work?

COMPARED WITH THE AVERAGE CHILD IN THE NORMAL CLASSROOM SITUATION, TO WHAT DEGREE DOES THE CHILD...

Table with 2 columns: Rating (1-7) and Item (45-47). Items include: 45. Like to be close to the teacher... 46. Have difficulty deciding what to do when given a choice... 47. Rush through his work and therefore make unnecessary mistakes?

# DEVEREUX ELEMENTARY SCHOOL BEHAVIOR RATING SCALE \*

George Spivack, Ph.D. and Marshall Swift, Ph.D.  
Devereux Foundation Institute for Research and Training

## DESB PROFILE

Student's Name \_\_\_\_\_ Teacher's Name \_\_\_\_\_  
Student's Sex \_\_\_\_\_ Age \_\_\_\_\_ Academic Subject \_\_\_\_\_  
Grade \_\_\_\_\_ School \_\_\_\_\_ Date of Rating \_\_\_\_\_

Behavior Factor	Factor Item Raw Scores	Tot'l Raw Sc.	Raw Score in Standard Score Units			
			-1SD	0	+1SD	+2SD
1. Classroom Disturbance	needs control 11 ___ 13 ___ interfere teases 12 ___ 30 ___ drawn in		CLASS DISTURB			
2. Impatience	starts 1 ___ 44 ___ go back sloppy 36 ___ 47 ___ rushes		IMPAT			
3. Disrespect-Defiance	disrespect 5 ___ 9 ___ subject defy t'ch'r. 7 ___ 16 ___ rules		DISRES- DEFT			
4. External Blame	t'ch'r. help 2 ___ 34 ___ blames called on 25 ___ 38 ___ too hard		EXTERNAL BLAME			
5. Achievement Anxiety	test scores 22 ___ 31 ___ testing right answ. 23 ___ 33 ___ sensitive		ACHIEVE ANXIETY			
6. External Reliance	see others 24 ___ 42 ___ swayed rely t'ch'r. 29 ___ directions 32 ___ 46 ___ choices		EXTERNAL RELY			
7. Comprehension	understands 10 ___ 37 ___ recites applies 35 ___		COMPRE- HENSION			
8. Inattentive - Withdrawn	lose attn. 18 ___ 28 ___ oblivious not atnd. 20 ___ 43 ___ reachable		INATTENT WITHDR.			
9. Irrelevant - Responsiveness	exagg. story 14 ___ 17 ___ interrupt answers 15 ___ 26 ___ irrel. talk		IRRELEV RESP.			
10. Creative Initiative	brings in 3 ___ 6 ___ start disc. act. imag. 4 ___ 21 ___ talk exper.		CREAT INITIAT			
11. Need Closeness to Teacher	seeks t'ch'r. 8 ___ 39 ___ friendly helps 19 ___ 45 ___ phys. close		N. CLOSE TEACH			
Additional Items	27 Unable change					
	40 Quits					
	41 Slow Work					

## Appendix B

### Philadelphia Youth Survey (Interview Materials)

Introduction: Before we start the survey, let me say a few things. This is not a test. There are no right or wrong answers. We want your honest opinions. Your answers will be kept strictly private. No teachers, or parents or schools will see your answers.

First let me check the spelling of your name and other things.

First I'd like to ask how important certain things are to you. I'll read 10 things to you. You decide if each is very important, not important at all, or somewhere in between. You do this by circling how important each is on this sheet of paper. (Explain concretely how to use the answer sheet).

How important is it to you:	Very Important	Somewhat Important	A little Important	Not Important at all
1. To have a family that does <u>lots</u> of things together.	4	3	2	1
2. To have other students think of you as a <u>good</u> student.	4	3	2	1
3. To have parents you can <u>talk to</u> about almost everything.	4	3	2	1
4. To <u>do well</u> even in <u>hard</u> subjects.	4	3	2	1
5. To have parents who <u>comfort</u> you when you're <u>unhappy</u> about something.	4	3	2	1
6. To do your <u>own school work</u> without help from anybody.	4	3	2	1
7. To have your <u>parents think</u> you do things <u>well</u> .	4	3	2	1
8. To have <u>teachers think</u> of you as a <u>good student</u> .	4	3	2	1
9. To have a <u>high grade point</u> average.	4	3	2	1
10. To <u>get along well</u> with your	4	3	2	1

11. On the next question I want you to tell how much schooling you would like to get eventually. Let me read down the list and you tell me which answer best fits what you think.

(write down if student mentions a specific educational or career aspiration)

- (1) I have enough now (without highschool graduation)
- (2) High School graduation
- (3) On the job apprenticeship (training)
- (4) Trade or business school
- (5) Some college or junior college
- (6) College graduation ( 4 years of college )

This next set consists of things you or someone your age might do. I want you to rate whether or not you think each is wrong to do by circling your answer on this sheet (Explain).

How wrong is it for someone your age to .....	Very Wrong	Wrong	A Little Wrong	Not wrong at all
12. Cheat on a school test.	4	3	2	1
13. Purposely damage or destroy property that does not belong to you.	4	3	2	1
14. Use marijuana or hashish.	4	3	2	1
15. Steal something worth <u>less</u> than \$5.	4	3	2	1
16. Hit or threaten to hit someone without any reason.	4	3	2	1
* 17. Use alcohol. (explain)	4	3	2	1
18. Break into a vehicle or building to steal something.	4	3	2	1
19. Sell hard drugs such as heroin, cocaine and LSD.	4	3	2	1
20. Steal something worth <u>more</u> than \$50.	4	3	2	1

In the next set of questions; I'll ask about some of your feelings and beliefs. I'll read each question and you indicate how much you agree or disagree by circling (Explain concretely how to use the scale).

<u>Consider repeating each question)</u>	Strongly agree	Agree	Disagree	Strongly Disagree
21. It's important to be honest with your parents, even if they become upset or you get punished.	4	3	2	1
22. To stay out of trouble, it is sometimes necessary to lie to teachers.	4	3	2	1
23. At school it is sometimes necessary to play dirty in order to win.	4	3	2	1
24. Making a good impression is more important than telling the truth to parents.	4	3	2	1
25. You can make it in school without having to cheat on exams/tests.	4	3	2	1
26. Sometimes it's necessary to lie to your parents in order to keep their trust.	4	3	2	1
27. It is important to do your own work at school even if it means some kids won't like you.	4	3	2	1
28. It may be necessary to break some of your parents rules in order to keep some of your friends.	4	3	2	1
29. Making a good impression is more important than telling the truth to teachers.	4	3	2	1
30. Policemen try to give all kids an even break.	4	3	2	1
31. It is alright to get around the law if you can get away with it.	4	3	2	1

Now, this next set of questions are a little different than the others. They deal with things young people sometimes do. Again, remember that all your answers are confidential. I'll read each to you and you will first circle whether or not you did the thing during this past year - between last January and now. (indicate on answer sheet).

Then over here (indicate) circle whether or not you did the thing before then.

This past year did you:

- 33. Steal (or try to steal) a motor vehicle, such as a car or motorcycle.
- 34. Steal (or try to steal) something worth more than \$50.
- 35. Knowingly buy, sell or hold stolen goods (or try to do any of these things).
- 36. Steal or try to steal things worth \$5 or less.
- 37. Attack someone with the idea of seriously hurting them.
- 38. Get involved in gang fights.
- 39. Hit (or threaten to hit) a teacher or other adult at school.
- 40. Hit (or threaten to hit) other students.
- 42. Take a vehicle for a ride (drive) without the owner's permission.
- 43. Have (or try to have) sexual relations with someone against their will. (Males only)
- 44. Use force (strong-arm methods) to get money or things from a teacher or other adult at school.
- 45. Use force (strong-arm methods) to get money or things from
- 46. Use force (strong-arm methods) to get money or things from other people (not students or teachers).
- 47. Steal (or try to steal) things worth between \$5 and \$50.
- 48. Break into a building or vehicle (or try to break in) to steal something or just to look around.
- 49. Hit (or threaten to hit) one of your parents.
- 49a. Get picked by the police for truancy.
- 49b. Get picked up by the police for anything else and taken to the police station.

Now we are interested in knowing how you feel about yourself. I will read questions about the kinds of feelings you may have been having over the past several weeks, feelings inside about yourself. Remember there are no right or wrong answers. Everyone has different feelings, and everyone's feelings change from time to time. We're interested in how you have been feeling generally over the last several weeks.

On this sheet I want you to circle whether you have been feeling very very much that way, not at all that way, or somewhere inbetween. Just pick the one that best describes how you have been feeling. Is it all clear?

- 50. When I get angry I stay angry.
- 51. I have faith in myself and other people.
- 52. I feel nervous.
- 53. I feel sad.
- 54. I believe that things usually turn out for the best.
- 55. If someone insults me, I am likely to hit them.
- 56. I feel under pressure.
- 57. I feel hopeless.
- 58. I believe people will generally do the right thing.
- 59. I yell at people.
- 60. I feel tense.
- 61. I feel ashamed of myself.
- 62. I expect to be successful in life.
- 63. I lose my temper.
- 64. New situations make me tense.
- 65. I feel guilty.
- 66. I look forward to being an adult.
- 67. I expect to have a good job later on.

In this final set of questions, I'm going to ask you about any drugs you have used over the past year. I'll ask first if you used it, and you mark yes or no right here (indicate on student answer sheet). Then if you mark yes because you did use it sometime over the past year, I want you to indicate here (indicating) how often you used it. You indicate how often by this scale (indicate).

This past year, did you ever use....

- 68. Alcoholic beverages, like beer, wine and liquor.
- 69. Marijuana - hashish (grass, pot, hash)
- 70. Hallucinogens, like (LSD, Mescaline, Peyote, Acid, Angel Dust)
- 71. Amphetamines like (Uppers, Speed Whites, Yellow Jackets, Black Beauties).

IF RESPONDENT DOES NOT UNDERSTAND THIS DRUG CATEGORY, SAY:  
"People can take amphetamines to lose weight, to stay awake, or to make them feel they have more energy."

- 72. Barbituates like (Downers, reds, or red devils)

IF RESPONDENT DOES NOT UNDERSTAND THIS DRUG CATEGORY, SAY:  
"These drugs can be used for calming down, reducing tension, and getting to sleep."

- 73. Heroin (Horse, Smack)
- 74. Cocaine (Coke)
- 75. Qualudes (ludes)
- 76. Any others? (ask student to specify on student's answer sheet)

PHILADELPHIA YOUTH SURVEY STUDY  
PARENT/GUARDIAN PERMISSION FORM

I have read the description of the research study. I understand what it says, and that my child's privacy will be guaranteed. I also understand that taking part is voluntary, my child may stop taking part at any time, and that he/she will receive \$15 for participating.

-----  
I GIVE permission for my daughter/son to take part in the Philadelphia Youth Survey Study:

\_\_\_\_\_  
Signature of Parent or Guardian

Parent or Guardian's name:

\_\_\_\_\_  
(please print)

\_\_\_\_\_  
Daughter/son's name  
(please print)

\_\_\_\_\_  
Date

I DO NOT GIVE permission for my daughter/son to take part in the Philadelphia Youth Survey Study:

\_\_\_\_\_  
Signature of Parent or Guardian

Parent or Guardian's name:

\_\_\_\_\_  
(please print)

\_\_\_\_\_  
Daughter/son's name  
(please print)

\_\_\_\_\_  
Date

Appendix C

Philadelphia Youth Survey Study

Student Interest Form

Description of the Study

Hello! - My name is \_\_\_\_\_. I am working on a survey which I want to tell you about.

The Philadelphia Public Schools, in cooperation with Hahnemann Medical College, is doing a survey of 660 students selected by chance who began school in Philadelphia in 1968.

The purpose of this survey is to study information about the opinions and experiences of young people growing up in Philadelphia so that we can better understand the problems faced by young people today.

Each interview will last one class period, and you will be paid \$10. You will be asked about some of your experiences in school, at home, and in the community, and about your opinions about these experiences and plans for the future.

If you wish to stop the interview at any time you can do so. We promise you that your answers will be kept strictly private, and will not become part of the school record. Your answers will not be shown to anyone at your school. No reports will use your name or give any information that would identify you.

Would you be willing to take part in our survey? It would be a great help to us and remember we will be paying you \$10 for the completed survey.

\_\_\_\_\_  
Name \_\_\_\_\_

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

School \_\_\_\_\_

75-163

LAST NAME		(First)	(Middle)	NICKNAME		<input type="checkbox"/> GIRL <input type="checkbox"/> BOY	
ADDRESS				BIRTH DATE			
FATHER		MOTHER		RACE			
SCHOOL		CHURCH		REFERRED TO			
DATE	CHARGE	ARREST		DISTRICT NO.	DISPOSITION	DATE	
		YES	NO				

75-163 (Rev. 5/67)

JUVENILE AID DIVISION RECORD

See Reverse Side

Appendix D  
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PHILADELPHIA POLICE DEPARTMENT  
COMPLAINT OR INCIDENT REPORT

YEAR	DIST.	D.C. NO.	DIST OF OCCUR.	SECTOR	CAR NO
CRIME OR INCIDENT CLASSIFICATION					CODE
PLACE OF OCCURRENCE <input type="checkbox"/> 1 - INSIDE <input type="checkbox"/> 2 - OUTSIDE					
DATE	DAY CODE	TIME OUT	AM PM	TIME IN	AM PM
COMPLAINANT					
ADDRESS			PHONE		
FOUNDED		REPORT TO FOLLOW		DIST./UNIT	UNIT CODE
<input type="checkbox"/> 1 - YES <input type="checkbox"/> 2 - NO		<input type="checkbox"/> 1 - YES <input type="checkbox"/> 2 - NO			
DETAILS					
POLICE OFFICER			NUMBER	DIST.	
SUPERVISOR			NUMBER	DIST.	

75-48 (REV. 1/67)

1 HANDYSETS BALTIMORE BUSINESS FORMS, INC., PHILA., PA. 19106

Use a BALL POINT PEN or HARD PENCIL - PRESS HARD



While portions of this document are illegible, it was micro-filmed from the best copy available. It is being distributed because of the valuable information it contains.

Appendix E

Weighting System for Deriving Seriousness Score for Each Offense

Index Crimes

SCORE SUBJECT

Identification number(s): \_\_\_\_\_

Effects of Event: I T D (Circle One)

Category of Event: A B C (Circle One)

Elements Scored	Number x Weight			Total
	1	2	3	
I. Number of victims of bodily harm				
(a) Receiving minor injuries			1	
(b) Treated and discharged			4	
(c) Hospitalized			7	
(d) Killed			26	
II. Number of victims of forcible sex intercourse			10	
(a) Number of such victims intimidated by weapon		2		
III. Intimidation (except II above)				
(a) Physical or verbal only		2		
(b) By weapon		4		
IV. Number of premises forcibly entered			1	
V. Number of motor vehicles stolen			2	
VI. Value of property stolen, damaged, or destroyed (in dollars)				
(a) Under 10 dollars			1	
(b) 10-250			2	
(c) 251-2000			3	
(d) 2001-9000			4	
(e) 9001-30000			5	
(f) 30001-80000			6	
(g) Over 80000			7	
				Score

Non-Index Crimes

Weight

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Score

Total Score

Appendix F

Pink Slip Form Methodology

Examples of offenses and their categories are presented below:

I. Personal

A. Offenses against Child

1. MINOR (primarily verbal actions)

- verbal abuse and arguments
- name calling
- verbal fighting
- cursing
- playful teasing
- chasing

2. MAJOR (primarily physical actions)

- provoking fight
- fighting
- threatening with object
- attacking
- sexually intimidating (touching opposite sex and refusing to stop)
- pushing and shoving
- throwing things at another child

I. B. Offenses Against Adult

1. MINOR (primarily verbal actions)

arguments.  
name calling  
cursing  
insulting or rude remarks

2. MAJOR (primarily physical actions)

threatening teacher or other adult  
swinging at teacher  
tripping teacher  
attacking teacher

II. Property

A. Offenses against Child

1. MINOR

taking books (intending to return)  
taking school supplies  
hiding personal property (hats, coats, etc.)

2. MAJOR

stealing personal property  
destroying personal property  
abusing personal property

B. Offenses against Adult

1. MINOR

taking personal property (intending to return)  
hiding personal property

2. MAJOR

stealing personal property  
destroying personal property  
abusing personal property

C. Offenses against Institution

1. MINOR

tearing page from book  
writing on desk  
knocking over furniture

II. C. 2. MAJOR

stealing school equipment  
destroying school property  
abusing school property  
setting fire  
defacing

III. Violation of Institutional Rules

1. MINOR

class cutting  
loitering  
hall roaming  
disruptive in class  
unprepared for class  
talking in class  
playing in class  
"messing around in class"  
not doing work  
late to class  
ridiculed class discipline  
eating in class  
calling out in class  
smoking on school premises (other than classroom)

2. MAJOR

throwing things  
playing with elevator  
lying to adult (authority)  
refusing to do work  
refusing to listen to teacher  
rocking and banging of chair  
refusing to take detention  
walking out of class  
running around in class  
cheating  
smoking in class  
smoking marijuana on school property  
setting off fire crackers

The scoring procedure was conservative, in that no inferences were made. Only information actually recorded was considered. Each pink slip received a total offense score, as well as set of category scores (e.g. total of minor offenses; total of major offenses). Each minor offense received a score of "1", and major

offense "2". For each pink slip, each subcategory was only scored once, so that if a student pushed and then punched another student, he received a score of "2" and not "4". Incidents were scored only if an offense occurred and was described, and not if evidence indicated that the teacher was only "annoyed." History leading up to an offense was not scored.

Since the response to each offense was recorded, it was also possible to score these. The assumption made was that, in general, the more drastic the reaction, the more serious the situation. Examination of pink slips suggested there were six classes of action which may result, singly or in combination, and that these could easily be ranked according to seriousness:

1. Verbal reprimand
2. Detention
3. Parent contact for conference
4. Suspension
5. Section of class change
6. Expulsion or transfer to disciplinary school

Each category was assigned and weighted score equal to its rank, every total action taken scored for each of its elements, each final score equalling the sum of the scores of its elements.\*

## HAHNEMANN HIGH SCHOOL (HHSB) BEHAVIOR RATING SCALE\*

George Spivack, Ph.D. and Marshall Swift, Ph.D.  
Department of Mental Health Sciences  
Hahnemann Medical College and Hospital, Philadelphia, Pa.

Student's Name \_\_\_\_\_ Teacher's Name \_\_\_\_\_  
 Student's Sex \_\_\_\_\_ Age \_\_\_\_\_ Grade \_\_\_\_\_ School \_\_\_\_\_  
 Date of Rating \_\_\_\_\_ Subject \_\_\_\_\_ Mark Achieved \_\_\_\_\_

### RATING GUIDE

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Base rating on student's recent and current behavior.</li> <li>2. Compare the student with normal youngsters his age.</li> <li>3. Base rating on your own experience with the student.</li> <li>4. Consider each question independently.</li> <li>5. Avoid interpretations of "unconscious" motives and feelings.</li> <li>6. Use extreme ratings whenever warranted.</li> <li>7. Rate each item quickly.</li> <li>8. Rate every question.</li> </ol> | <p>Consider only the behavior of the student over the past month.</p> <p>The standard for comparison should be the average youngster in the normal classroom situation.</p> <p>Consider only your own impressions. As much as possible, ignore what others have said about the student and their impressions.</p> <p>Make no effort to describe a consistent behavioral picture or personality. It is known that youngsters may manifest seemingly contradictory behavior.</p> <p>As much as possible, base ratings on outward behavior you actually observe. Do not try to interpret what might be going on in the student's mind.</p> <p>Avoid tending to rate near the middle of the scales. Make use of the full range offered by the scales.</p> <p>If you are unable to reach a decision, go on to the next item and come back later to those you skipped.</p> <p>Attempt to rate each item. If you are unable to rate a particular item due to lack of information, circle the item number.</p> |
|---|--|

YOU ARE GOING TO RATE THE OVERT BEHAVIOR OF A STUDENT. FOR ITEMS 1-22, USE THE RATING SCALE BELOW. WRITE YOUR RATING (NUMBER) FOR EACH ITEM IN THE BOX TO THE LEFT OF THE ITEM NUMBER.

Very frequently 5      Often 4      Occasionally 3      Rarely 2      Never 1

COMPARED WITH THE AVERAGE STUDENT IN THE NORMAL CLASSROOM SITUATION, HOW OFTEN DOES THE STUDENT . . .

- 1. Tell the teacher he is not capable of doing the work expected (i.e., underestimates his ability)?
2. Bring up other points of view in class so that they may be explored or discussed?
3. Ask questions in order to get more information about a subject?
4. Complain that the work is too hard?
5. Raise his hand to answer a question, or volunteer information?
6. Act physically restless in class or unable to sit still?
7. Seem critical (in a negative way) of the peers' opinions, questions or work in class?
8. Bring things to class that relate to a current topic?
9. Come in late to class?
10. Do more work than he is assigned (i.e., carries assignments beyond the minimal requirement)?
11. Express the feeling that too much work has been assigned?
12. Annoy or interfere with the work of his peers in class?
13. Speak disrespectfully to the teacher in class?
14. Participate actively in classroom discussions?
15. Have his work poorly organized (e.g., class notes, written assignments, etc.)?
16. Criticize, belittle or make derogatory remarks concerning the importance of the subject matter of the course?
17. Come to class having lost, forgotten or misplaced his books, pencil or other necessary class material?
18. Seem overly concerned that he has the correct directions (e.g., will check an assignment with a teacher after class, will ask that a direction be repeated or clarified, etc.)?
19. Fail to turn in assignments on time?
20. Engage the teacher in conversation just before or after class (e.g., about subject matter of courses, or mutual interests)?
21. Come up with original or unique thoughts in class which are unusual, but relevant?
22. Have to be reprimanded or controlled by the teacher because of his behavior in class?

FOR ITEMS 23-42 USE THE RATING SCALE BELOW:

Extremely 7      Distinctly 6      Quite a bit 5      Moderately 4      A little 3      Very slightly 2      Not at all 1

COMPARED WITH THE AVERAGE STUDENT IN THE NORMAL CLASSROOM SITUATION, TO WHAT DEGREE IS THE STUDENT . . .

- 23. Liked by you as a person?
24. Outwardly nervous about taking tests?
25. Effective in applying a new principle he has learned to a new or unfamiliar problem?
26. Likely to quit or give up when something is difficult or demands more than usual effort on his part?
27. Reliant upon the teacher for directions and to be told how to do things or proceed in class?
28. Responsive or friendly in his relationship with the teacher in class (vs. being cool, detached or distant)?
29. A compulsive talker (i.e., can't refrain from talking to classmates)?
30. Quick to grasp a new concept that you present in class?
31. Prone to want the teacher to do all the work for him, or make things easy for him?
32. Swayed by the opinions of his peers in his class?
33. Very quiet, uncommunicative (e.g., responds to questions with monosyllables or a gesture)?
34. Effective in making inferences and working out answers for himself, when given the facts?
35. Oblivious to what is going on in class — is not "with it" — seems to be in his own "private," closed world?
36. Inconspicuous in class (i.e., you could easily forget he is there)?
37. Prone to feel he must master all of the details before he is satisfied he knows it?
38. Dogmatic or opinionated in the way he thinks?
39. Prone to want quick, "black" or "white" answers to questions?
40. Openly nervous during class (e.g., is physically tense, voice quivers, or fearful of teachers or classmates, etc.)?
41. Not receptive to others' opinions (e.g., doesn't "listen," interrupts others, etc.)?
42. Able to sift out the essential from the unessential in what he reads or hears in a lecture?

FOR ITEMS 43-45, USE THE RATING SCALE BELOW:

Extremely 7      Distinctly 6      Quite a bit 5      Moderately 4      A little 3      Very slightly 2      Not at all 1

COMPARED WITH THE AVERAGE STUDENT IN THE NORMAL CLASSROOM SITUATION, TO WHAT DEGREE DOES THE STUDENT . . .

- 43. Fluster, block, or become ill at ease when expressing himself verbally?
44. Lack social interaction with peers in class?
45. Prepare homework or project assignments in an interesting and original fashion?

# HAHNEMANN HIGH SCHOOL (HHSB) BEHAVIOR RATING SCALE\*

George Spivack, Ph.D. and Marshall Swift, Ph.D.  
Department of Mental Health Sciences  
Hahnemann Medical College and Hospital, Philadelphia, Pa.  
**HHSB PROFILE**

Student's Name \_\_\_\_\_ Teacher's Name \_\_\_\_\_

Student's Sex \_\_\_\_\_ Age \_\_\_\_\_ Grade \_\_\_\_\_ School \_\_\_\_\_

Date of Rating \_\_\_\_\_ Subject \_\_\_\_\_ Mark Achieved \_\_\_\_\_

Behavior Factor	Factor Item Raw Scores	Tot'l Raw Sc.	Raw Scores in Standard Score Units									
			-1SD	0	+1SD	+2SD						
1. Reasoning Ability	apply 25 ___ 34 ___ infer grasp 30 ___ 42 ___ sifts		REAS. ABIL. 4	0	12	20	24	28				
2. Originality	bring up 2 ___ 21 ___ thgts bring in 8 ___ 45 ___ homework		ORIG.				14	17	22			
3. Verbal Interaction	asks 3 ___ 14 ___ discuss answers 8 ___		VERBAL	3				15				
4. Rapport with Teacher	engage 20 ___ 28 ___ friendly likeable 23 ___		RAPPORT	3	8				16			
5. Anxious Producer	overwrk 10 ___ 37 ___ mastery directns 18 ___		ANXIOUS PROD.	3				11	13	17		
6. General Anxiety	tests 24 ___ 43 ___ recite genrl 40 ___		GEN. ANXIETY				0	12	14	18	21	
7. Quiet-Withdrawn	uncom 33 ___ 36 ___ incnspc obliv 35 ___ 44 ___ peer		QUIET WITHDR.					16	18	20	24	28
8. Poor Work Habits	late 9 ___ 17 ___ forgets order 15 ___ 19 ___ late wk		WORK HABITS	4				16		20		
9. Lack Intellectual Independence	quits 26 ___ 31 ___ tch EZ directns 27 ___ 32 ___ swayed		LACK INDEP.	4				19	22	25	28	
10. Dogmatic-Inflexible	dogmatic 38 ___ 41 ___ reject bl/white 39 ___		DOGMAT. INFLEX.	3				15		18	21	
11. Verbal Negativism	peers 7 ___ 16 ___ subj tchr 13 ___		VERBAL NEG.		3			9	11	12	15	
12. Disturbance-Restless	restless 6 ___ 22 ___ contrl annoy 12 ___ 29 ___ talk		DISTURB. RESTLESS	4	7	10	13	16	19	22		
13. Expressed Inability	I can't 1 ___ 11 ___ too much too hard 4 ___		EXPRESS. INABIL.	3		5	7	8	11	13	15	

TRAS

Student #: \_\_\_\_\_ Date: \_\_\_\_\_ School: \_\_\_\_\_ Teacher: \_\_\_\_\_

From your direct experience with this young person, does he/she:

	Never	Rarely	Sometimes (What one would expect of a young person this age)	A little more often than most	Almost Always
1. Appear friendly and outgoing with peers					
2. Act depressed or despondent in moods					
3. Act socially withdrawn, uncommunicative, aloof, daydreamy					
4. Show positive leadership qualities					
5. Act agitated or anxious					
6. Act interested in what is going on in class or school					
7. Get overemotional about things; react with immediate anger or upset if having trouble mastering something					
8. Act timid, shy, fearful, self-conscious					
9. Act uncooperative; disobedient, disruptive with others					
10. Act assaultive, quarrelsome, initiates fights					

Student #: \_\_\_\_\_ Date: \_\_\_\_\_ School: \_\_\_\_\_

Identifying Information

Information Sources

VP	C	Other Specify

1. Has this student been a participant in any one or more of the following school activities? (Please Check)

- |               |                |                           |
|---------------|----------------|---------------------------|
| Safety Patrol | Honor Society  | Science Club              |
| Hall Monitors | Class Officer  | Future Teacher of America |
| Glee Club     | School Officer | Jr. Red Cross             |
| Orchestra     | Athletics      | Other (specify)           |

2. Has a "discipline referral form" (pink slip) ever been sent to you on this student? (Yes; No) If so,

- When:
- What did student do?
- What action did you take? (e.g. suspension, parents contacted, etc.)

3. Have you evidence that you judge as reliable indicating that this student:

No	Yes, within last month	Yes, within last year	Yes more than a year ago
----	---------------------------------	--------------------------------	-----------------------------------

- Cut classes excessively
- Damaged property
- Been a member of a delinquent gang
- Verbally threatened others
- Stole others' property
- Sexually intimidated others
- Been assaultive
- Attempted to injure himself
- Exhibited other negative or anti-social behaviors

No	Yes, within last month	Yes, within last year	Yes more than a year ago

APPENDIX I

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**Information Sources**

VP	C	Other Specify

4. To the best of your knowledge, has this student ever been referred to or had contact with:

a. A mental health agency (Yes; No) If yes, indicate when, what agency, and why:

b. The Youth Study Center: (Yes; No) If yes, indicate when and why:

c. The Family Court: (Yes; No) If yes, indicate when and why:

d. A social agency: (Yes; No) If yes, indicate when, what agency, and why:

5. Has this student been referred to the school counselor for help? (Yes; No) If so,

a. When:

b. Why:

1. Conduct or behavior disturbance

2. Emotional disturbance

3. Academic difficulty

4. Other (Specify)

\_\_\_\_\_  
Interviewer

**END**